- ## **Alarms and security related schematics**

- 4 Photo-Detector circuit with delayed release and bipolar output

- 5 Zone alarm circuit

- 5 Zone Alarm Circuit

- 5 Zone Alarm System

- Alarm control keypad

- Arduino Based Security / Automation Sensors

- Auto Burglar Alarm

- Automatic Intruder Alarm

- Automatic Intruder Alarm

- Build an iButton electronic lock based around a AT91C2051 microcontroller (includes ASM source code)

- Car Alarm and Immobilizer

- Car Hijack Alarm

- Circuit diagram for basic alarm with delayed trigger

- CMOS single zone intruder alarm

- Cold activated switch (frost alarm)

- Combination Lock (PIC16F84)

- Constructing your own Light Alarm

- Digital combination lock

- Digital combination lock using pair of CD4013 CMOS chips

- Digital Keypad Combination Lock

- Door Alarm circuit diagram

- Door knob alarm (PDF)

- Modular Burglar Alarm

- Modular Burglar Alarm

- Motorcycle alarm

- Motorcycle Alarm

- Motorcycle Alarm Number 2

- Motorcycle Alarm Number 3

- Motorcycle Alarm Number 4

- Motorcycle Alarm Number 5 & 6

- Multi-zone burglar alarm

- Novel Buzzer

- Perimeter monitor

- Proximity detector (uses human body capacitance)

- Proximity detector for humans / living creatures using eddy current detection

- Rain alarm / rain detector

- Refrigerator door alarm

- Refrigerator Door Alarm

- RF Alarm

- RF Pad - combination-controlled, fully customizable radio frequency remote control

- RFID Access Control System based on an Arduino

- Single Zone Alarm

- Single Zone CMOS Alarm

- Smartcard controlled relay circuit based around Nutchip microcontroller

- Sun - Up Alarm

- Touch activated alarm system

- Transistor based single zone intruder alarm

- Travel Touch Alarm

- Ultrasonic radar alarm

- Ultrasonic Radar Alarm Circuit Diagram

- Ultrasonic remote control & alarm system

- Wailing alarm siren

- Water Activated Alarm

- Water Activated Alarm

- Water level alarm

- Water Level Indicator with alarm

- Water seepage alarm (PDF)

- Waterpump Safety Guard for fish pond / fish tank

- Wire loop alarm

- Wire Loop Alarm using 4001UBE Quad NOR Gate

- Wireless alarm FM transmitter module

- Wireless alarm system based around Nutchip microcontroller

- ## **Audio power amplifier schematics**

- 10 Watt Audio Amplifier

- 10 watt audio power amplifier using discrete transistors (includes PCB layout)

- 100W audio amplifier including PCB layout

- 100W Guitar Amplifier

- 100W RMS Amplifier

- 10-30 watt stereo audio amplifier circuit

- 110mW emitter follower audio power amplifier

- 12 dB Amplifier and High Current Line Driver with DC Servo (PDF)

- 13.5 Watt Power Amplifier using a TL081 opamp and TIP125 / TIP120 power transistors

- 150W audio amplifier that's cheap to build using TIP142 / TIP147 Darlington power transistors

- 16 Watt audio amplifier using pair of 8 watt LM383 audio amplifier chips

- 20 dB Amplifier and High Current Balanced Line Driver

- 20 Watt Audio Power Amplifier using TDA2005M

- 20 Watt Class-A Power Amplifier using MJE2955, TIP2955 or TIP36 for output stage

- 20 Watts per channel stereo power amplifier using LM1875 or TDA2050 power amplifiers

- 22 Watt Audio Amplifier using TDA1554 two channel audio amp chip

- 22 Watt Stereo Amplifier using TDA1554

- 25 Watt MOSFET Audio Amplifier using IRF532 / IRF9532 hexfet transistors for output stage

- 25W MOSFET audio amplifier

- 2W / 4W audio amplifier using pair of LA4100, LA4101 or LA4102 modules

- 2W Audio Amplifier using BD139 and BD140 transistors

- 300W Subwoofer Power Amplifier (PCBs available for project)

- 30W ultra-low distortion audio power amplifier

- 360W RMS into 8 ohms or 550W RMS into 4 ohm audio power amplifier

- 4 channel power amplifier with bi-amping and bridging options

- 50 Watt Amplifier

- 50W Amplifier

- 50W audio amplifier using ICL8063

- [50W audio power amplifier](#)

- [8 Watt amplifier](#)

- [8 watt audio amp](#)

- [Ampliefied speaker, built for MP3 player but can be used with other headphone only devices (PDF)](#)

- [Amplified ear for surveillance](#)

- [Amplifier based on LM4780 including a thermal shutdown feature](#)

- [Audio Amp Output Power Limiter](#)

- [Audio amplifier output relay delay](#)

- [Audio amplifier with squelsh-control](#)

- [Basic Audio Amplifier including a SPICE model](#)

- [Build a good Audio Buffer Amplifier](#)

- [Class-A/AB Amplifier delivering 100W into a 4 ohm load](#)

- [Class-C power amplifier](#)

- [CMoy pocket headphone amplifier](#)

- [Compact 50W Integrated Amplifier with Meier Headphone Section](#)

- [Crest Audio LT Series LT100, LT1500 and LT2000 Schematic Set - class D amplifier (PDF)](#)

- [Death of Zen (DoZ) - A New Class-A Power Amp](#)

- [DIY Headphone-Amplifier with Natural Crossfeed](#)

- [DPA 220 amplifier schematic](#)

- [DPA 440 amplifier schematic](#)

- [DPA 880 amplifier schematic](#)

- [Earth loop reduction amplifier](#)

- [Easy to build DIY 50W amplifier based on ICL8063](#)

- El-Cheapo - A Really Simple Power Amplifier

- Five Tube Stereo Amplifier

- Hammonator Organ to Guitar Amp Conversion (tube amplifier)

- H-Bridge Power Amp circuit diagram and SPICE simulation files

- HeadBanger Headphone Amp

- Headphone amplifier based on 12AX7 tubes

- Headphone monitor amp

- Headphone practice amplifier

- Hi-Fi Headphone Amplifier

- High quality exponential VCA

- LM380 2.5 watt audio amplifier circuit

- Low impedance microphone amplifier

- Low Power Audio Amp Experiments

- Low power audio amplifier circuit based on LM386

- Low power audio amplifier using BC109C along with BD679 and BD680 Darlington pairs

- Miniature audio amplifier

- Mini-MosFet Audio Amplifier

- More Discrete BJT, Low Power AF Amp Experiments

- Potpourri of Transistor Audio Amplifier Circuits

- Quadraphonic Amplifier based on pair of LM1877 devices

- Ruby is an "enhanced" version of the Little Gem battery-powered amplifier (LM386 based design)

- Selection of Integrated Circuit Audio Amplifiers

- Simple 0 to 24 dB Gain Amplifier and Balanced Line Driver (PDF)

- Simple 200W audio amplifier

- Simple Class A Amplifier - 10W audio output

- Single Chip 50 Watt / 8 Ohm Power Amplifier

- Small audio amplifier based on LM386

- Soft-Start Circuit For Power Amps

- Soft-Start Circuit For Power Amps

- Spatial Distortion Reduction Headphone Amp

- Speech Amplifier Box

- Stereo audio amplifier based on TDA2822M

- Super linear Headphone amplifier

- Super Simple 3 Watt Audio Power Amplifier based on TDA1015

- TDA2030 8 Watt amplifier

- Thermo-Fan To Keep Your Amp Cool

- Tube amplifier

- Two 9v battery-powered amps based on the LM386. Schematic and PCB/perfboard layouts.

- Two Transistors Audio Amplifier

- Variable Amplifier Impedance

- Voice Amplifier

Audio preamp circuits

- Altec 1564A Preamp Power Supply

- Altec 428B Microphone Preamplifier schematic

- API 321 mic preamp schematic

- Application note showing RIAA phono preamplifier based around the National LM833 (PDF)

- Audio preamp

- Audio preamplifier

- Balanced microphone preamp

- Basic logarithmic amplifier using op-amp and NPN transistor

- Basic low frequency preamplifier circuits

- Bat detector microphone pre-amplifiers

- Collection of phono preamplifier circuits

- ECM Mic preamp

- Electret mic amplifier

- FET Preamp Cable

- General purchase audio preamplifier based on pair of 2N2222 transistors

- Hi Fi preamp

- Hi-Fi Preamp with remote-control and other advanced features

- High quality audio preamplifier (OPA2134)

- IC tone control preamplifier using single 741 opamp

- Intercom preamp

- Low impedance microphone amplifier

- Low Noise Microphone Preamplifier

- Low voltage microphone preamplifier using LM10

- Magentic phono cartridge phono preamp circuit diagram

- Microphone preamp for portable transceivers

- Microphone pre-amp with high emphasis

- Mono audio preamplifier using single 2SC732 transistor

- Neumann U67 microphone preamp power supply

- RCA BA-1A two-stage preamp schematic

- RCA BA-21A preamplifier schematic

- RCA BA-31A preamplifier schematic

- Selection of audio preamplifiers including circuits suitable for battery operation

- Simple Car Preamplifier and Artificial Earth

- Simple Microphone Preamplifier

- Simple microphone preamplifier

- Simple microphone preamplifier

- Simple transistor preamp - includes a PCB layout

- Sound card microphone preamplifier

- Two transistor audio preamplifier with volume control

- Ultra-Simple Guitar Preamp

- Vacuum Tube Microphone Preamp

- Voltage follower with 1G ohm input resistance based on LM11 opamp

Automotive, car and motorcycle schematics

- 12V 300W 4 channel car amplifier schematic diagram

- 12V battery level indicator for car batteries

- 12V to 9V car coverter

- 15W mono car amplifier using TA7227P

- 20 Segment Expanded Scale Voltmeter including a PCB design

- 3 Channel, 12 Volt Color Organ for a car

- 3rd brake light

- 5301 wideband fuel mixture display

- 6W mono car amplifier using BA521 or BA532 amplifier module

- 80188XL Engine Tachometer / Race Computer

- Adaptive Windscreen Wiper Control

- Authentic Looking Knight Rider Led Project

- Automatic Headlight Brightness Switch

- Automatic Headlight Brightness Switch

- Automatic headlight brightness switch

- Automotive 12V to +-20V converter (for audio amplifier)

- Automotive Speed Indicator

- BMW R Series Motorcycle Regulator Schematic

- Brakelight Flasher

- Car acceleration meter

- Car Alarm Arming Horn Beep Canceller

- Car backup / reversing alarm

- Car Battery Charger

- Car battery charger

- Car battery charger circuit

- Car battery charger with automatic cutoff

- Car Battery Charger, an SCR Design with a 10 Amp rating

- Car battery voltage tester using LM3914

- Car burglar alarm circuit

- Car Door Keypad Using LIN network

- Car Nicad charger

- Car OBD II J1850 PWM, J1850 VPW, ISO-9141 cables schematic pinout

- Car OBDII diagnostic interface cable schematic pinout

- Car power supply unit for digital projects, small car PCs etc

- Car Timer with Atmel ATiny45 to automatically turn of accessories to prevent flat battery

- Car Voltage Gauge with 7-segment readout

- Car Water Temperature Gauge with 7-segment readout

- Combination lock for car liftgate

- Common Ground for Older VPW OBD Circuit

- Custom USB tyre pressure monitoring system

- Digital speedometer for cars with 7-segment display of speed

- Dome Lamp Dimmer

- Economy radar detector

- Electronic car ignition

- Electronic car ignition circuit

- Engine control unit schematics

- FCD (Fuel Cut Defencer)

- Flashing / pulsing third brake like for cars

- Flashing light / emergency beacon for vehicle

- Fuel injector pulse width monitor

- Grand Cherokee Off-Highway Lights

- Headlight flasher

- Headlight Flasher

- [Headlight guard](#)

- [Headlight reminder](#)

- [Headlight timer](#)

- [Hijack alarm](#)

- [Interface between GM's 5 Volt 8192 baud ALDL data stream and a PC serial port](#)

- [Interior light extender](#)

- [KITT (from Knight Rider) Car scanner using incandescant lamps](#)

- [Large capacitor charge "controllers" (Car Audio)](#)

- [Low battery cut-off circuit for a car or truck](#)

- [Motorctcle turning signal system](#)

- [Motorcycle battery charger](#)

- [Motorcycle brake light flasher](#)

- [Motorcycle low battery voltage warning circuit](#)

- [Network car controller provides functions for remote door locks, headlight reminder, and car finder](#)

- [Opendiag OBD-II Schematics & PCB Layout Opendiag OBD-II Schematics & PCB Layout](#)

- [Park-Aid - Three LEDs signal bumper-barrier distance](#)

- [Parking aid senses distance to rear of vehicle](#)

- [Portable CD Player Adapter For Car](#)

- [Portable CD Player Adapter For Car](#)

- [Pseudo car alarm system](#)

- [Seatbelt reminder circuit](#)

- [Simple but reliable car battery tester using LM3914](#)

- [Simple car battery charger](#)

- Simple car battery voltage monitor

- Simple Car Preamplifier and Artificial Earth

- Simple Vehicle Loop Detector (inductive loop for driveway etc)

- Speed alert - wireless portable unit

- Speed limit alert

- Synchronized multi-spark module (SMSM) for Electronic Ignition Devices (EID)

- Third brake light pulser circuit

- Two LED trouble light system

- Ultrasonic parking sonar electronic circuit diagram using transistors and 4000 series CMOS

- Vehicle Telemetry Platform based on an Arduino

- Volvo 164 electric fan thermostat

- Wide Band Fuel Mixture Display

- Wiper Speed Control

- Wireless Auto Tachometer

- Wireless Auto Tachometer

Data acquisition (DAQ) and data logging schematics

- 1-Wire Barometer Project

- 4 Bit Digitizer / flash ADC using discrete components

- 8 Photo-Detector Circuit Board

- A PIC Based Temperature Data Logger

- Acceleration Sensor Network

- Accelerometer Schematic

- Accelerometer with microcontroller and display

- ADC Input Driver DIFFERENTIAL to DIFFERENTIAL

- ADC Input Driver DIFFERENTIAL to SINGLE-ENDED

- ADC Input Driver FULLY DIFFERENTIAL AMPLIFIER

- ADC Input Driver SINGLE-ENDED to DIFFERENTIAL

- ADC Input Driver SINGLE-ENDED to SINGLE-ENDED

- ADC logger 6ch Measurent and serial port logger with wireless longrange link

- Addressable ADC

- ADXL202 break-out board

- Amplifier for the AXUV Series Photodiodes

- Analog input section based on AD9220

- Arduino based water flow guage

- Atmel Mega32 8ch Analog signal measure logger

- Capacitance type liquid level measurement (PDF)

- Centronics port D/A converters and low-pass filter

- Circuit monitoring device logs for over 10 days and can log up to 32k events both digital and analog

- Connect a NTC with a wheatstone bridge to a normal AD-Input

- Data Acquisition & Logging System Using AT89c51 and Visual Basic

- Data Acquisition System using ATmega8

- Data Acquisition System using ATmega8

- Home Brew Compass Sensor

- Honey Bee counter (PDF)

- Low cost gyro / accelerometer combo sensor

- Making an LM35 temperature recorder (based on PIC12F675) - logs to EEPROM

- Making an LM35 temperature recorder (based on PIC12F675) - serial output

- Online thermometer based on an Arduino

- PIC16F877A Thermometer with MCP9700A sensor

- Precision Digital Altimeter

- Pressure Sensor-Based Altimeter Circuit

- Pyranometer to Current Converter

- Rain detector

- Remote digital thermometer sends data over AC power line

- Self made data-logger V2.5 (second edition)

- Serial interface (RS232) I/O card suitable for data acquisition

- Serial Port A/D-converter

- Simple Analog to Digital Converter using ADC0808 that displays output using LEDs

- Simple device for connecting serial instrument with RS485 or RS232 to the internet

- Simple RS422 Converter for Minilogger

- Strain gauge sensor interface

- Temperature compensated logarithmic amplifier (PDF) includes circuit and design notes

- Thermostat node schematic

- Transducer Amplifiers

- Ultrasonic Range Finder & Imager

- Ultrasonic range finder circuit

- USB datalogger - simple-to-use, long-term measurement solution

- Using a 555 Timer as an A/D converter

- Voltage follower with 1G ohm input resistance

- Water Tank Depth Sensor based on an Arduino

- <u>Water-level sensor</u>

- <u>Weather Station Receiver based on an Arduino and 433MHz RF receiver module</u>

- <u>Wind speed logger</u>

- <u>Wind speed logger Mk2</u>

- <u>Wireless Liquid Level Sensing for Restaurant Applications</u>

- <u>Wireless weater station</u>

- <u>XL-DIG 3-axis Accelerometer board - 3-axis digital I2C/SPI accelerometer board</u>

- # **Filter schematics**

- <u>"A" Weighting Filter For Audio Measurements</u>

- <u>136KHz bridged-T notch filter to reduce strength of the German utility station DCF39 on 138.83 kHz</u>

- <u>1KHz 4th order Butterworth filter using LT1367 quad operational amplifier</u>

- <u>20KHz Butterworth active filter using Linear Technology LT1124, LT1355 or LT1169</u>

- <u>29.85 MHZ bandpass filter schematic</u>

- <u>29.85 MHZ notch filter schematic</u>

- <u>3 KHz low pass filter plus audio amplifier circuit diagram</u>

- <u>3KHz low-pass filter plus audio amp (PDF)</u>

- <u>440 Hertz Peaked Low Pass Audio Filter Experiments</u>

- <u>45 to 90Hz hum filter</u>

- <u>4th Order Butterworth filter schematic and calculator</u>

- <u>'A' Weighting Filter For Audio Measurements</u>

- <u>Active bandpass filter with TDA2320A</u>

- <u>Active bandpass filters</u>

- <u>Analog Filters for Data Conversion (ADC filter)</u>

- A-weighting filter from an old Ampex service manual

- Bandpass and IF Filter Circuits

- Bandpass filters

- Biquad Active Bandpass Filter Schematic

- Chebyshev / Butterworth filters

- Chebyshev low pass filter, rolls of at 30MHz

- Collection of quartz crystal ladder filter circuit diagrams

- CW Filters

- Design of active filters with operational amplifiers (includes circuit and Java filter calculator)

- Digital signal processor (DSP) for radio communications

- Discrete Component Audio-Frequency RC Filters

- Filter Circuit for the Earthworm Seismic Data Acquisition System

- Filters for the RadioJove Receiver

- Fourth order Butterworth BPF circuit diagram and design notes

- Galaxy Noise Filter

- Higher Order Analog Butterworth Filter Designs, includes on-line filter calculator

- LC filter design on-line calculator

- Low pass filter for subwoofer

- Low-pass active filter

- Matching Low Pass Filter for 136kHz transmitter

- Multiple Feedback Bandpass Filter

- Multiple Feedback Bandpass Filter

- RC Low-Pass Filter with Op Amp Buffer (single pole filter) with SPICE simulation files

- Sallen-Key Active Butterworth High Pass Filter Calculator and circuit diagram

- Sallen-Key Active Butterworth Low Pass Filter Calculator and circuit diagram

- Sallen-Key Low Pass Filter Calculator (handles Butterworth filters, Bessel filters and Chebychev)

- Sallen-Key Low-Pass Filter (Double-Pole) with SPICE simulation files

- Self-tuning CW filter

- Series Notch Fliter Designer / Calculator (displays circuit diagram after calculation)

- SSB AF filter

- Variable notch filter with both high and low pass filters

- ## **Games and fun stuff (electronic schematics)**

- 3-up decision maker

- Archery timer

- Atari Punk Console schematics

- Battery Meter for Pinball Machines

- Burger Time Arcade Game circuit diagram (PDF)

- Cat toy using a PIC12F675 and a small weighted motor to keep your cat amused

- Coin tosser

- Decision maker

- Dig Dug Arcade Game (800k ZIP)

- DIY flying saucer / UFO using a PIC microcontroller

- DIY shutterglasses controller

- Dreamcast interface

- Dreamcast PC serial adapter

- Dual LED dice (available in kit form)

- E.S.P. Conjuring Trick

- Electronic Astrologer (decision maker)

- Electronic dice

- Electronic Nicad glow plug driver

- Electronic roulette wheel circuit diagram

- Flashing heart

- Frogger Arcade Game circuit diagram (PDF)

- Furby Resurrection - Project that replaces the electronics in a Furby with new custom electronics

- Furby reverse-engineered circuit

- Fuzebox - open source 8-bit game console based on Atmel ATmega644-20PU

- Galaga Arcade Game circuit diagram (PDF)

- Game Show Timers

- Gyrus Arcade Game circuit diagram (PDF)

- How to install LED lights to Mini-Z model car (based on PIC12C509)

- How to use a SCART TV as a Monitor for MAME arcade game emulator

- Interfacing Sony control stick to Empeg

- JAM(Just A Minute) Quiz Game Circuit

- Jeopardy game circuit diagram using three CMOS logic chips

- Judge Dredd pinball locking ring modification

- Junior Pacman Arcade Game circuit diagram (PDF)

- Ladybug Arcade Game circuit diagram (PDF)

- LED Dice implemented with a PIC microprocessor

- LED dice project based on 555 timer and CD4017 decade counter

- LED dice project including nice veroboard layout (PDF)

- LED dice using PIC16F88

- LED dice with fast roll

- Lego Mindstoms IR Link PIC transceiver

- Lego Mindstorms Double Rotation Sensor

- Low-cost bingo game for a TV based on an Atmel microcontoller

- Magic Wand Conjuring Trick

- Mappy Arcade Game circuit diagram (PDF)

- MBC5/CPLD for the GameBoy

- MemoSound game based on a PIC16F84A

- Moon Cresta Arcade circuit diagram (PDF)

- Mr.Do Arcade Game circuit diagram (PDF)

- Multi-User Jeopardy Game (Fastest Finger First)

- PacLand Arcade Game circuit diagram (PDF)

- Pengo Arcade Game circuit diagram (PDF)

- Persistance of vision (POV) toy

- PIC10F200-based electronic dice

- PIC16F84-based video game system

- Pine Racecar Victory Judge

- Pine Racecar Victory Judge

- Q*Bert Arcade Game circuit diagram (PDF)

- Qix Arcade Game circuit diagram (PDF)

- Quiz game circuit

- Quiz show indicator

- Reaction timer using 4013 flip-flop and 4060 12-stage binary ripple counter

- Reflex Action Game

- Repairing & Upgrading Gottlieb System 80 Pinballs from 1980 to 1989

- Scramble Arcade Game circuit diagram (PDF)

- Single LED dice kit circuit diagram

- Space invaders game using PIC microcontroller

- SRX1 (Stephane's Robotic eXperiment 1)

- SX28-based color video game system

- Talking Egyption frog box

- Time Pilot'84 Arcade Game circuit diagram (PDF)

- Two player quiz master game

- VCR ping pong game

- Video ping pong game

- Virtual Game System - A game console with a mechanically scanned display

- Visor cradle serial interface

- Xevious Arcade Game circuit diagram (PDF)

Infrared based schematics

- 40khz IR Tester

- 40KHz light receiver (PDF)

- 40KHz TV-VCR repeater (PDF)

- 50MHz Receiver for the IR Detector

- 50MHz Transmitter for the IR detector

- 555 timer 40khz IR Oscillator

- Basic infrared link for audio communication over distances up to 3 metres

- Build an Infrared night scope

- Computerized Infrared Remote

- Decoding IR Remote Controls

- Digibox interface

- Direction sensing infrared motion detector using PIR (PDF)

- DVD thermometer - display temperature on TV by remotely controlling DVD player by infrared

- Fire-Stick infrared remote control

- High power infrared remote control to turn off television sets from a distance

- Implementing Infrared Object Detection

- Improved infrared receiver for PC with status LED

- Inexpensive infrared reflectometer

- Infa-Red Remote Control

- Infra Red Remote Control Extender (Mark 1)

- Infra Red Switch

- Infra Red Switch that works with commonly available remote controls

- Infra Red wired Repeater circuit to control appliances from a remote location

- Infrared / Ultrasonic beacon

- Infrared beam barrier / proximity detector

- Infrared beam door alarm

- Infrared Body Sensing

- Infrared circuits for remote control

- Infrared gate (door entry alarm)

- Infrared gate for door

- Infrared Head Phones

- Infrared headphone system (includes transmistter and receiver schematics along with vero layout)

- Infrared lamp

- Infrared level detector for liquid level detection and proximity detection

- Infra-red Light Barrier Using 555

- Infrared link for 10-BASE-T / 100-BASE-T PC network card

- Infrared motion detector circuit

- Infrared Motion Detector using a PIR sensor (PDF)

- Infrared object detector using a PIC12F629 microcontroller

- Infrared proximity detector based on Microchip PIC12C508 or PIC12C509

- Infrared Proximity Detector based on Vishay TSOP4830

- Infrared Receiver Module Schematics

- Infrared remote control tester using a SFH2030 photodiode and a CA3140 operational amplifier

- Infrared Remote Control that operates on 115 volts AC

- Infrared remote transponder

- Infrared S/PDIF Receiver

- Infra-Red Sensor/Monitor

- Infrared switch using any infrared remote control

- Infrared transmitter for locomotives

- Infrared Transmitter Project Implemented on a Solderless Breadboard

- IR Audio link

- IR detector

- IR detector

- IR detector / emitter

- IR illuminator for night-vision tv cameras and scopes

- IR Link

- IR remote control

- IR remote control extender

- IR Remote Control Extender Circuit

- IR Remote Control Extender Circuit (Mark 2)

- IR Remote Control Extender Circuit (Mark 2)

- IR Remote Control Extender Circuit (Mark 3)

- IR Remote Control Extender Circuit (Mark 3)

- IR Remote Control Extender Circuit (Mark 4)

- IR Remote Control Extender Circuit (Mark 5)

- IR Remote Control Jammer

- IR remote control tester

- IR remote control tester

- IR wheel encoder board

- iRDA transceiver to extend IR port range up to 15 meters

- IR-related ASCII Schematics V1.00

- Measuring the speed of light with an infrared LED / photodiode (TDOA)

- Micro based PIR to IR remote converter

- PC IR Remote Control Hardware

- Project to capture infrared remote control signals and play them back, based on Atmel ATMEGA48 micro

- Pyroelectric Infrared (PIR) Sensor

- RC5 Repeater to extend distance of infrared remote controls

- Remote control uses an IR receiver chip to receive the IR signal from the remote

- Remote infrared terminal for projects requiring IR communications

- Serial port controller infrared transmitter (PIC16F628)

- Simple Infa-Red Remote Control

- Simple infra-red detector

- Simple infrared remote control

- Simple IR transmitter circuit

- Simple on-off IR photoswitch without use of comparators

- Simple Remote control Tester

- TV remote control Blocker

- Universal Serial Infrared Receiver

- Wireless IR headphone receiver

- Wireless IR headphone transmitter

LASER related power supplies and data transmission

- 20MHz laser light detector (PDF)

- 20MHz VCSEL 3mW laser test circuit (PDF)

- 40KHz laser burst detector (PDF)

- A simple and inexpensive laser power meter (PDF)

- Circuit for temperature stabilisation of laser diodes

- Circuit to measure speed of light with nanosecond pulsed 650 nm laser diode

- Circuits for biasing and modulating laser diodes

- Diode laser electronic circuits for atom optics

- Experimental laser data link

- Guide to Building a Homemade XY Scanner

- Heathkit modulated HeNe laser power supply kit (HK-HI1)

- HeNe laser power supply

- Home Built Laser Projector

- Laser beam alarm system

- Laser diode transmitter RF section

- Laser high-voltage power supply

- Laser light output intensity meter

- Laser link communicator project from Electronics Australia magazine

- Laser Listening Device

- Laser Modem with an Arduino Microcontroller

- LASER Power Supply

- Laser power supply

- Laser range finder and reflectivity meter for the MARS-96 international space project (PDF)

- Laser rangefinder using a linear image sensor

- Laser Target Finder Sensor

- LASER Transmitter/Receiver

- Laser transmitter/receiver

- LASER Transmitter/Receiver using Pulse Width Modulator (PWM) for 12V / 24V applications

- LASER/LED light output intensity meter (PDF)

- Low Cost Scanning Laser Rangefinder (PDF)

- Low noise PIN diode laser receiver circuit

- Micro-Laser range finder

- Micro-power 40KHz burst laser diode driver (PDF)

- Modulated laser diode tester (PDF)

- OPT301 Laser receiver

- Pulse Circuits for Infrared LEDs and Visible Diode Lasers

- Pulse Circuits for Infrared LEDs and Visible Diode Lasers

- Rangefinder with Fast Multiple Range Capability

- Real-time Laser Range Finding Vision System

- RS-232 Laser Transceiver

- RS-232 laser transceiver

- Simple high current pulsed laser driver using an avalanche transistor

- Simple laser communicator

- Simple LASER Transmitter/Receiver using HeNe laser tube

- Sniper tag laser beam detector

LED related schematics

- "Mini-Beacon" miniature programmable LED Flasher that is based around a PIC12F629 microcontroller

- "Peggy" - A Light Emitting Pegboard Display

- 1.5V LED flasher A (PDF)

- 1.5V LED flasher B (PDF)

- 10, 8 And 6 Step LED Circuits (CD4017)

- 12 Volt Knight Rider LED display

- 13 Color LED Rainbow

- [13 Color LED Rainbow](#)

- [18 LED dimmable LED lamp](#)

- [3V LED chaser using 4017](#)

- [60 LED Clock](#)

- [6V ultra-bright LED chaser using 74HC4017](#)

- [7 Segment LED Counter](#)

- [7 Segment LED Counter](#)

- [A "persistence of vision display" (POV display) using LEDs](#)

- [Adjustable flashing LED](#)

- [Alphanumeric Led Display Project](#)

- [Assorted LED circuits](#)

- [Automatic LED display dimmer using a LED as a light sensor](#)

- [AVR Color Clock using RGB LEDs](#)

- [Bedazzler: Do-it-yourself Handheld LED-Incapacitator (non-lethal weapon)](#)

- [Bicycle LED POV (persistence of vision display) LED display](#)

- [Bicycle rear flashing LED light](#)

- [Big 7-segment LED display board with SPI interface](#)

- [Cheap high constant current LED driver using OnSemi NCP3063 switching power supply IC](#)

- [Christmas Star](#)

- [Christmas tree](#)

- [Color fade](#)

- [Colour Shifting For Bi-Colour LED's](#)

- [Constant current LED driver circuit using an NPN transistor to control an N-channel MOSFET](#)

- Constant current LED driver circuit using LM334 plus a transistor

- Constant current LED driver schematic using a pair of BC547 transistors

- Current Regulators For Light Emitting Diodes

- Dancing LEDs

- Digital Up / Down Counter with 7-segment display

- Discrete LED Color Organ

- Driving led display matrix from a PIC micro

- Fading LEDs

- Fantastic Atom Expander

- Flashing LED advertising badge (PDF)

- Flashing LED advertising badge (PDF)

- Flashing LED circuit using 555 timer

- Fun with LEDs - a variety of LED flahser projects

- Giant T-shaped LED matrix display board for financial applications containing 275 8x8 LED modules

- Heart of LEDs

- High Current Pulsed LED

- High Efficiency 12V White LED Driver

- High power LED driver using LTC3780

- How to Control LED Brightness with a PWM Circuit using a 74AC14

- Incandescent LED Circuit

- Knight rider scanning LED lights

- LED Audio VU Meter

- LED Chaser

- LED chaser

- LED Chaser using 4011 / 4017 CMOS chips

- LED color fade

- LED dimmer circuit

- Led display digital Voltmeter

- LED driving and controlling methods including constant current drivers and PWM brightness control

- LED flasher using 4584 hex inverting Schmitt trigger

- LED flasher with "Rising and Falling" Brightness

- LED Modulation Circuits including 5MHz and 50MHz versions

- LED Mood Light

- LED Mood Light

- LED Running Message Display using CD4017 with transistor drivers rather than a CPU

- LED Thermometer

- LED Voltage Indicator Board

- LEDMATRIX, a 80x32 pixel DIY LED matrix display

- Linear constant current source dimmer for a white 24-LED array

- Little bike light using LEDs

- LM3909 replacement using discrete components

- Low battery voltage flasher (PDF)

- Low current LED flasher (PDF)

- Making an Amplified Color Sensor from an LED and an Op Amp

- Notes on using LEDs and various LED driver circuit diagrams

- Persistence of Vision Display for Bikes

- Pocket Ignignokt LED display

- PointLess LED Array - A 8 by 8 array displays something using POV

- POV Persistence Of Vision 2 x 32 LED display

- Pulsed LED test circuit (PDF)

- Regulated Dual White LED Lamp

- Running Message Display

- SAA1064 display module project

- Schematic and breadboard layout for reversed LED color sensor using an opamp

- Scrolling LED sign based on Atmel ATtiny2313 AVR microcontrolle

- Selecting of LED projects including a flashing Christmas tree

- Sequential flashing arrow circuit using a 4017, also includes a PCB layout

- Seven Component Regulated LED Lamp

- Seven Component Regulated LED Lamp

- Simple current limiting for LED flashlights

- Simple LED Constant Current Lighting Circuit

- Simplest LED Flasher Circuit using a 2N2222 transistor Simplest LED Flasher Circuit led

- Single and Two Cell White LED Drivers Without Inductors

- Single cell LED flasher with two-year battery life (LM3909 replacement)

- SPI Interface Big 7-Seg LED

- Tiny micro-controller driven lightshow using LEDs and a Picaxe 18A (PDF)

- Using Common Cathode Or Anode LEDs As Bipolar LEDs

- Various LM555 LED Blinker Circuits

- Voltage boost and buck circuits using Atmel AVR Tiny13V for driving a white LED

- White LED circuits

- White LED Drive Circuit

- White LED Lamp

- White LED Stroboscope

- YoYo enhancement device using a PIC12F629 to provide LED lighting effects

- **Lighting and light controller schematics**

- 12 Volt DC Fluorescent Lamp Driver

- 12 Volt Strobe, Coil Driven

- 1200 Watt Lamp Dimmer Circuit using Q4015LT combination Diac

- 12VDC Fluorescent Lamp Driver

- 12VDC Fluorescent Lamp Driver

- 12VDC Fluorescent Lamp Driver

- 1W Fluorescent lamp night light (PDF)

- 220 Volts Flashing Lamps

- 4-channel dimmer rack

- 5W Fluorescent light intensity modulator (PDF)

- 6 Channel Auto Reverse Sequential Disco Running Lights

- Adjustable Strobe Light

- Adjustable Strobe Light

- Adjustable Strobe Light

- Automated crib light

- Automatic Room Lights

- Automatic Staircase Light 1

- [Automatic Staircase Light 2](#)

- [Battery juicer provides a night light from almost flat batteries that would otherwise be discharded](#)

- [Battery-powered Night Lamp](#)

- [Bicycle back Safety Light](#)

- [Bike Light Flasher](#)

- [Black Light](#)

- [Black Light powered by a 6 volt battery](#)

- [Brightness Control for small Lamps](#)

- [Candle simulator based on a PIC12F675 microcontroller](#)

- [Christmas lights tester](#)

- [Circuit for remote lighting controller using a 433MHz AM keyfob transmitter](#)

- [Circuit to enable cycling a string of Christmas lights](#)

- [Courtesy Light](#)

- [Digitally Addressable DALI Dimming Ballast (PDF)](#)

- [Dimmable Li-Ion Halogen Bike Light](#)

- [Diode Type Constant Lighting Circuits](#)

- [Disco light controller (ZIP file)](#)

- [DMX lighting and special effects](#)

- [Easy Xenon DC-DC Converter using LM386](#)

- [Electronic candle](#)

- [Electronic night light](#)

- [Emergency light flasher schematic](#)

- [Flashing neon christmas lights](#)

- Flashy Christmas Lights

- Fluorescent Tube "Strip light" Driver

- Inverter for fluorescent lights as published in Silicon Chip Magazine February 1991 (PDF)

- Lamp flasher/dimmer

- LED Mood Light

- LEDs or Lamps Sequencer is versatile modular design with no limits on number of lights

- Lightning bulb - Create an electrical storm in a light bulb

- Low-voltage light dimmer

- LX-800 Lighting system

- Mini emergency light

- Neon desklamp

- Neon lamp dimmer

- Night light saver using AT89C2051

- RHINO8 EL Sequencer

- Strobe light

- Strobo Disco Light Using Standard Tube Lamp (TL)

- Traffic light controller using an Arduino microcontroller

- TRIAC based lamp dimmer circuit diagram

- TRIAC Light Dimmer

- TRIAC Light Dimmer

- TRIAC light dimmer

- Xenon Flash Indicator (XFI)

- Xenon Strobe Light

- ## **Medical and health related schematics**

- "TENS" Circuit diagram for muscle stimulation

- Automated Timestamp for Computed Radiography

- Brain-Wave Machine

- Cardiac monitor

- Cranial Electrotherapy Stimulation (CES) circuit diagram

- Digital pedometer circuit

- ECG amplifier with right leg drive

- ECG Measurement and Analysis

- EKG/EEG circuit

- Electronic Stethoscope

- Electronic Stethoscope

- Galvanic Skin Response (GSR) Circuit

- Heart rate sensor

- Heartbeat transducer using infrared LED / detector

- Jogging timer

- Lie detector

- Model 2030 XRAY monitor instruction manual including schematics (PDF)

- Muscular Bio-Stimulator

- Muscular Bio-Stimulator using 555 timer

- OpenEEG open hardware EEG project

- Optical Heart Rate Monitor

- PC based biofeedback monitor

- Photodiode Pulse Detector - using infrared light to detect a heartbeat (PDF)

- Portable blood pressure monitor

- Positive Feedback Circuit for Isometric Muscle Experiments

- Pulse rate monitor / telephone based electronic stethoscope design

- Salt taster - detects the amount of salt contained in liquid foods

- Simple lie detector

- Simple lie detector

- Sleeping aid based on electromagnetic-field radiation

- Snore alarm electronic device

- Tan timer to prevent sunburn

- The ESP SIM (Sound Impairment Monitor)

- Tiny EEG interface schematic

- Wireless Electrocardiogram Monitor

- ## Microcontroller based schematics

- "Singing" Christmas tree based on Microchip PIC16F84

- 10 tricks for interfacing to the PIC16C508

- 10 tricks for interfacing to the PIC16C508

- 101 AT Keyboard to ASCII Decoder using 68HC705J1A MCU

- 128x64 LCD Driver for AT90S2313 (ZIP file)

- 2-wire LCD interface using PIC16CF84

- 3-wire serial LCD interface for the PIC

- 40+ MHz 5-digit frequency counter with an AVR 2313

- 4-Channel Timer using Atmel 89C4051 and MAX7219 display driver

- [50 MHz frequency counter, voltage meter & SWR/PWR indicator](#)

- [6802 Nano computer](#)

- [8049 Spy - read the internal ROM contents of a 8048 or 8049 processor](#)

- [8051 Development System Circuit Board](#)

- [8051 Development System Circuit Board](#)

- [8051 Development System Circuit Board](#)

- [8051 Development System Circuit Board](#)

- [8051 SBC (single board computer)](#)

- [8051SBC V1.1](#)

- [8088 maximum mode SBC](#)

- [80C31 stepper motor controller](#)

- [89C2051 microcontroller programmer](#)

- [89S52 Project Board](#)

- [90S2313 AVR Robot Board](#)

- [A PIC16F819 Dymoclock (also demonstrates interfacing 30 LEDs to a PIC using only six I/O pins)](#)

- [A PIC16F84A Alarm Clock](#)

- [A PIC-based "TDOA" RDF (radio direction finder) antenna unit](#)

- [A Real Time Clock IC (DS1307) project using the PIC micro](#)

- [A Scenix (and PIC) Programmer](#)

- [A Voice Controlled LED Light Show using a VRStamp](#)

- [Acceleration monitor using ADXL202 and AVR](#)

- [ADC conversion using ADC0804LCN and 8051](#)

- [AFSK 1200 Modem based on PIC16C620](#)

- ['Almost No Parts' 7-segments 12/24 Hours LED clock with PIC 16F84A or 16F628A](#)

- [Analog datalogger based on T89C51RD2](#)

- [Analog to digital (ADC) conversion notes](#)

- [Arduino based controller interface for servo motors, stepper motors and DC motors](#)

- [Arduino microcontroller prototyping system](#)

- [Arduino speech sythesizer](#)

- [Asynchronous 40-bit TTL CPU](#)

- [AT89C2051 Digital thermometer and clock](#)

- [AT89C2051 line-follower robot](#)

- [AT89C2051 Night light saver](#)

- [AT89C2051 real-time controller](#)

- [AT89C2051 serial COMs to LED driver](#)

- [AT89C2051/4051 Driving dot LED](#)

- [AT89C2051/4051 Easy-Downloader](#)

- [AT89C2051/4051connecting dumb terminal](#)

- [AT89C2051/4051scanning 7-segment display and keypad](#)

- [AT89C2051/4051stepper motor interface](#)

- [AT89C51/52/55 Easy-Downloader](#)

- [AT89Sxx Cheap and Simple Learning Board](#)

- [AT90S8515 experimenter board](#)

- [ATmega48 based Nixie Clock](#)

- [ATmega8 based TNC with GPS and WX support](#)

- [Atmel 8051 Flash Based-Microcontroller Programmer](#)

- [Atmel 89 Series Device Programmer](#)

- Atmel 89C Series Flash Microcontroller Programmer

- Atmel 89C2051 In-Circuit Programmer Schematic

- Atmel 89C2051 prototype board

- Atmel 89S and AVR Programmer (STK200)

- Atmel 90s2313 based TNC

- Atmel AT90USB development board

- Atmel ATmega128 development board

- Atmel ATtiny26 development board

- Atmel AVR 90s2313 based POCSAG encoder (ZIP file)

- Atmel AVR and 8051 series ISP programmer

- Atmel AVR ATMega 8535/16/32 and AT89S5x family learning kit

- Atmel AVR ATtiny45 development board

- Atmel Mega88 Dual Temperatur meter

- Atmel Mega88 Temperatur meter, Type K sensor, Heat set and regulator

- Atmel Microcontroller based Ultrasonic Ranger

- Automatic door opener with PIC12C508

- AVR Based NiMH battery charger

- AVR STK200/STK300 ISP Dongle circuit diagram

- AVR Thermometer

- AVR thermometer / thermostat based on an Atmel ATtiny2313

- AVR to IDE hard disk drive interface project including circuit

- AVR910 - AVR Programmer

- AVR-Based Serial Port IR Receiver

- AVR-Core V1.1 - DIP-like development board for ATmega128 processors (PDF)

- AVRlinx V1.1 - Development board for ATmega16, ATmega32 processors with data radio transceiver (PDF)

- AVRmini V2.0 - Development board for all AVR processors in 40-pin packages (PDF)

- AVRmini V3.1 - Development board supporting all AVR processors in 40-pin and 64-pin packages (PDF)

- AVRmini V4.0 - Development board with Ethernet/USB for 40-pin AVR processors (PDF)

- AVRmini8 V1.0 - Development board for ATmega8, ATmega44, ATmega88, ATmega168 processors (PDF)

- Basic Stamp based altimeter

- Build a PIC controlled DDS VFO, 0 to 6 MHz

- C-52 EVB Robot Controller

- CASIO datalogger system based around Microchip PIC microcontroller

- CF/IDE Adapter V1.0 - CompactFlash and IDE interface for your microcontroller

- Cheap Ultrasonic Range Finder based on a PIC microcontroller

- Cheap Ultrasonic Range Finder based on PIC16F877A with a 8MHz crystal

- Circuit for interfacing an Arduina to USB using an FTDI FT232BM chip

- Circuits for interfacing microcontrollers to a wide number of real-word interfaces

- Complete Design for Giant 8-foot LCD Counter (Zip file)

- Connecting AT90S2313 with LCD display 2x16 char and 4x4 keypad

- Connecting LED to PIC Micro I/O pins (PDF)

- Cypress PSoC based digital wallet to record secret codes and passwords securely

- Darkroom timer using PIC16F84A

- Designing a 4-Channel A/D (ADC) converter with the PIC12C671

- Digital compass using PIC16F84

- Dirt cheap video using a PIC16F819 microcontroller

- Driving high-power loads with a microprocessor

- DS1820 Arbiter V2.00 Schematic

- EasyPic2 with on-board Ethernet Adapter

- Electronic distance meter based on Motorola 68HC908QY4

- Electronic irrigation controller based on PIC

- Electronic safety lock based on ATtiny26

- Ethernet shield for Arduino (Xport)

- EZ80 single board computer schematic (Z80)

- Fan timer based on Motorola 68HC908QT2

- Galvanic decoupling of I2C bus

- GPS / Datalogging shield for Arduino microcontroller

- GPS LCD Display Project

- Hardware Random Number Generator with an SX microcontroller

- Homebrew Basic Stamp project

- I2C LCD interface

- Iambic keyer based on a PIC16F84 or PIC16C84

- IDE interface to a Microchip PIC16F877 microcontroller

- In-Circuit PIC Loader (ISP programmer) over parallel port

- Interfacing an LCD touch control panel to an Arduino

- Interfacing DRAM to AT90S8515

- Interfacing EEPROM to a Basic Stamp

- Interfacing the MAX186 8 Channel ADC to the BSII

- Interfacing the MAX187 ADC to the BSII to measure voltages

- Interfacing the PIC16C508

- IR On/Off Switch Using a PIC12F629 Microcontroller

- Isolated RS232 for PIC16F84

- Isolated RS232C for PIC16F84 or other microcontrollers

- JDM programmer

- Jupiter card programemr

- KD7LMO Micro Beacon (PIC18F252)

- LCD clock based on AVR Attiny2313

- LCD thermometer using PIC16F871

- LCD to PIC16C54 schematic

- LED 5x7 display using a PIC microcontroller

- Linuxstamp general purpose processor module based on Atmel AT91RM9200

- Long-period watchdog timer

- Low cost Atmel in-system programmer

- Mains clock controller using AT89C2051

- Measuring Acceleration Using a PIC Microcontroller (ADXL202 + PIC16F84A)

- Microchip PIC ICD (in-circuit debugger)

- Microcontroller sensor and actuator interfaces

- Microprocessor RS-232 Reset

- Microprocessor using Xilinx FPGA

- MiniLOGGER V1.0

- MMC to PIC16F876 circuit diagram

- Motorola 68HC11 evaluation board

- Motorola 68K SBC (single board computer)

- MTK-85 8085 Microprocessor Training Kit

- [MTK-85 8085 Microprocessor Training Kit](#)

- [Multi PIC Programmer 5 Ver.2](#)

- [Multi-chip programmer](#)

- [Night light saver (PIC12C508)](#)

- [Nixie clock (PIC16F876)](#)

- [Parallel AVR programmer](#)

- [PC to microcontroller communications using power from the PC serial port](#)

- [PIC 18 programmer (PIC18F458, PIC18F452, PIC18C252, PIC16C745, PIC18F6620, PIC18F6720)](#)

- [PIC based packet radio encoder (PDF over FTP)](#)

- [PIC based touch clock that demonstrates interfacing a PIC microcontroller to an LCD touch panel](#)

- [PIC demo board](#)

- [PIC ICD](#)

- [PIC LCD and Keypad driver](#)

- [PIC Light Chaser using PIC16C84](#)

- [PIC micro LED projects](#)

- [PIC micro multiple servo motor interface](#)

- [PIC micro programmer](#)

- [PIC micro programmer that runs under MAC, Win98, XP, Vista, DOS, Linux, etc](#)

- [PIC micro to ISA bus interface](#)

- [PIC microcontroller servo motor interface](#)

- [PIC Project #1 - RS232 to I2C Interface](#)

- [PIC serial communications tutorial, includes circuit diagram and PIC16F84 assembler code](#)

- PIC Serial LCD project - An RS232 serial LCD interface using a standard HD44780 LCD

- PIC sonar (ultrasonic) range finding project with seven segment display using PIC micro

- PIC vacuum fluorescent display (VFD) interface

- PIC Web Server Schematic

- PIC12C508 Night-light saver

- PIC12C508 Phase Controller for 2kW heater (ZIP file)

- PIC12C509 Gym Timer (ZIP file)

- PIC12C509 logic gate replacement for nitrogen filler (ZIP file)

- PIC16 DemoKit3 with programmer and displays

- PIC16C505 IR / wireless remote control

- PIC16F628 controlled FLL (Frequency Locked Loop) VFO for HF (PDF)

- PIC16F84 Based Morse Code Reader

- PIC16F84 CW decoder (PDF)

- PIC16F84 debugging terminal

- PIC16F84 LED chaser

- PIC16F84 line following robot

- PIC16F84 miniature real-time controller

- PIC16F84 programmer

- PIC16F84 pulse monitor with date/time output (ZIP)

- PIC16F84 Serial I/O-expander with PicBasic

- PIC16F84 tone generator

- PIC16F84 tone generator (6-Bit)

- PIC16F84 tone generator with source code

- PIC16F84 TRIAC / IGBT brightness phase controller

- PIC16F876 Datalogger

- PIC16F877 Programmer And Development System

- PIC16F877 to IDE interface

- PIC18F2550 Project Board

- PIC18F4550 Development Board including PCB layout suitable for home etching

- PICADC - a free, PIC based "intelligent" A/D converter

- PicCon - Hidden Radio Transmitter Controller

- PicoWeb V5.1 (AT90S8515) tiny web server

- PIC-Programmer 2

- PIC-Programmer 2 for PIC16C84 etc

- PIXpand - TI calculator to Playstation memory card interface

- POCSAG encoder/decoder (Zip file)

- Poor man's analog to digital converter (ADC) using a 2N222 transistor and a few passives (PDF)

- Programmer PIC16F84,12C50x and EEPROM 24Cxx

- Programming hardware and softrware for 14-bit FLASH PIC microcontrollers

- PS/2 keyboard keystroke logger based on Atmel 89C2051

- RF remote control based on Basic Stamp

- Rotating Sprocket Wheel Generator (PIC16F84)

- RS232 interfaced DVM using a PIC12F675 including source code for CCS C Compiler

- RS-232 to TTL Translator

- RS485-like multi-drop bus with half duplex serial protocol

- ScanMate audio activated recorded

- Scriptable thermometer / thermometric controller based around a COP8-CCR9-PLC44 microcontroller

- SD card interface for PIC microcontroller including schematic and source code

- Serial LCD controller using a PIC16F628

- Serial LCD Controller using Microchip PIC16F628

- Serial port I/O interface using AVR microcontroller

- Serial to parallel converter using the AT89C2051

- Serial-based PIC16F84 Programmer For Windows 95/98/NT/2000/ME/XP

- Ser-Key 10-Key Serial Keypad Encoder

- Several Atmel AVR programmer circuits

- Simple 10 bit DAC for the Arduino using TLC274 opamp

- Simple CW Keyer based on Atmel ATtiny 2313

- Simple QRSS callsign keyer based on an Atmega AVR programmed in C

- Simple RS232C Level Converter using Transistors

- Smart card programmer

- Solderless Breadboard Arduino Clone for Arduino prototyping

- Speech recognition using HM2007

- Speech Synthesizer Development System using a PIC microcontroller

- SPI Flash Microcontroller Programmer

- SPI2CF, a fast and efficient WLAN interface for the AVR

- T89V51CC01 Development board

- Tachometer Measures Very Low Frequencies (PIC16F872)

- Talking fish hack using a PIC16F819 microcontroller

- Talking PIC - based on SP0256

- TekBots universal device programmer with USB interface

- Temperature controlled based on AT89CX051

- Temperature monitor/controller: AVR 2313 / DS1621

- Tiny 2313 Project Development Board

- Tiny 2313 Project Development Board

- Tiny Eprom Simulator

- Tony Nixons Pocket Programmer (PIC)

- Touch senstor based on Atmel AT90S2313

- TTL to RS232 adapter using 2N3906 / 2N3904 transistors

- Ultra low-cost programmer for AT90S family

- Ultrasonic Distance Measurement With the MSP430 (PDF)

- Ultrasonic Distance Measurer based on Freescale MC9RS08KA2 (PDF)

- USB and GLCD expansion board for 8051 SBC

- USBmini V1.0 - Generic USB Full-speed interface board (PDF)

- USBtinyISP - AVR programmer & SPI interface project

- Using an ADXL330 accelerometer with an AVR microcontroller

- Using the AT89C4051 as a RTC (real-time clock)

- Variety of circuits for RS232 to TTL Signal Conversion

- Variety of circuits for TTL to RS232 Signal Conversion

- Victoria TAFE programmer (based on AT89C2051)

- Wave (Audio) shield for Arduino microcontroller

- Wireless communications using a Basic Stamp and low-cost wireless data modules

- Wisp628 ISP Microchip PIC Programmer

- WLoader - PIC16F877 application loader / bootloader

- **Misc audio (also see Music, Amplifiers, Preamp)**

- "Anti-RIAA" Equalizer for Line to Mag Phono Converter (PDF)

- 1 Watt audio amp using a TDA7052

- 12 watt audio amplifier with tone using TDA1020

- 3 Channel Spectrum Analyzer

- -30dBm to +30dBm Audio Level Meter

- 3-Band audio graphic equalizer

- 4 channel audio selector

- 5 watt audio amplifier using TDA1010

- 6-Input mixer

- Acoustic Simulator for Headphone Amplifiers

- Active Sub-Woofer and Controller

- Actvie speaker based on a dual op-amp (LM833) and TDA2030 power amp

- Additional RFI protection for line input circuit diagram (PDF)

- Amplifier thermal protection

- An Audio Limiter for NBFM use

- An Audio-Noise-Based Voting Circuit

- Analog Synth Keyboard Schematic

- Assortment of Siren Circuits

- Audio DAC3 (SPDIF->Analog Audio)

- Audio Detector Circuit

- Audio graphic equaliser

- Audio Indicator - monitor a loudspeaker, alarm, or audio source for presence of an audio waveform

- Audio line isolator

- Audio mixer (ASCII circuit diagram)

- Audio Signal Source

- Audio Spectrum Analyzer and Equalizer Designs

- Audio Speech Processor

- Audio VU Meter based on pair of LM324 quad opamps

- Automatic Charger for Battery Operated Hi-Fi Preamps

- Automatic loudness control

- Balanced Line Driver & Receiver

- Base / treble control circuit using LM1036N

- Bass booster using a TL702 opamp

- Bass EQ pre-amp correction for high impedance ceramic crystal pickup

- Beat Tracking Strobe

- Better Volume (and Balance) control circuit diagrams

- Big Ben sound effects generator

- Bridging Adapter For Audio Power Amplifiers

- Bridging Adapter For Power Amplifiers

- Build a Tape Linearizer and a Distortion Analyzer

- Cicuit diagram for super long range microphone for use with a shotgun microphone or parabolic dish

- Clack Clack Electronic Bell

- CMOS IC 1 kHz Audio Oscillator

- Condenser microphone hookup

- Cuckoo sound generator

- Cuckoo sound Generator

- DC Fault Protection Circuit for Audio Amplifiers

- Defeating SCMS on DAY recorders using a Sony CXD2601 chip

- Digital Delay Unit For Surround Sound

- Digital noise generator (PDF)

- Digital volume control

- Digital volume control

- Digital Volume Control based around CD4067 CMOS chips

- Digital Volume Control using DS1669 Digital Pot IC

- Digital Volume Control using DS1669

- Direct Injection Box for Recording & PA Systems

- Doorphone intercom

- Dual Voltage Controlled Oscillator w/Modulator

- Dynamic microphone to electret microphone input

- Electret microphone powering circuits

- Electronic attenuator

- Electronic Canary

- Electronic canary sound effects

- Electronic siren

- Envelope generator ADSR

- Fast Audio Peak Limiter

- FET Audio Mixer

- FET audio mixer

- Guitar Reverb Effect Version 2

- High CMRR Balanced Interface for Crystal 18 or 20 Bit A/D Converters (PDF)

- High Output Line Driver for Single Ended Power Supply (PDF)

- High Quality Audio Mixer

- High Quality Sound Mixer

- Home theater system

- Improved PL tone decoder

- ISD4002-120 audio recording circuit

- JFET Bass Preamp

- Line level signal to microphone input adapter

- Linkwitz Cosine Burst Generator

- LM358 preamp

- Load Sensing Automatic Switch

- Loudspeaker Protection and Muting

- Loudspeaker Protection and Muting

- Low frequency / audio frequency dB output meter

- Low Noise Balanced Microphone Preamp

- Low Noise Microphone Preamplifier

- Magnetic cartridge amplifier

- Microcontroller (AT89C2051) based tachometer (PDF)

- Microphone Mixer

- Microphone mixer

- Microphone phantom power supply

- Minimalist Discrete Hi-Fi Preamp

- Minimum Theremin Kit Schematic

- Mono To Stereo Synthesizer / Simulator

- MS Stereo Decoder

- Musical Electronic Bell

- NE555 drives a speakes: Pulse Width Modulation Amplifier

- Noise-Canceling Headphones circuit diagram based on NE5322 opamps

- Novel buzzer using a relay and transformer

- Op Amp Limiter including SPICE simulation

- Panner Waveform Generator

- Parabolic microphone project circuit (can be used with shotgun directional microphone also)

- Paradoxical Sound Syntheizer

- Parametric And Sub-Woofer Equaliser

- Parametric And Sub-Woofer Equaliser

- Peak reading audio level meter using CA3140 opamp

- Peak-reading meters

- Phase shifter

- Phono Preamps For All

- Police Siren

- Power Amplifier Clipping Indicator

- Power Amplifier Clipping Indicator Circuit Diagram

- Precision Audio Millivoltmeter

- RC Audio Oscillator

- RDS Encoder

- Regulatable audio amplifier using a 741opamp

- RIAA Equalized Stereo Phono Preamp

- Room noise detector

- Room Noise Detector

- SCMS killer circuit for DAT decks using Sony CXD2601 signal processor chip

- Signal Detecting Auto Power-On Unit

- Simple Audio Tone Control Circuit

- Simple electronic buzzer

- Simple light to sound converter with Youtube video

- Simple Surround Sound Decoder

- Simple surround sound decoder circuit schematic

- Simple two line output combiner

- Simplest Ever Amplifier Bridging

- Six-channel Mixer and Amplifier

- Slew rate control circuit diagrams

- Sound activated relay, V1

- Sound activated relay, V2

- Sound alarm based on LM741 opamp and LM386 amplifier

- Sound detector

- Sound Level Meter

- Sound level meter

- Sound operated switch

- Sound Pressure Level Meter

- Speaker cabinet simulator - professional-quality frequency response in a DIY-friendly circuit

- Speaker Microphone Circuit

- Speaker signals to line level inputs

- Speech recorded using ISD2560

- Spring reverb unit

- Stereo Audio Isolator

- Stereo Audio Isolator

- Stereo audio line driver for running audio over long distance cables

- Stereo Width Controllers

- Subwoofer Equaliser

- Subwoofer Filter, Gainer, Auto Power System

- Super mixer with microphone input / amplifier including a PCB layout

- Three channel audio spectrum analyzer

- Three channel audio spectrum analyzer

- Three-Level Audio Power Indicator

- Tone control circuit diagram

- Tone control circuit schematic

- Tone Control using TDA1524A Tone Control IC

- Tone detector circuit diagram

- Tone display system

- Tone generator circuit diagram

- Two Tone Audio Oscillator

- Underwater microphone used in a home aquarium to monitor fish sounds

- Use amplifier phono input as line level input

- Using a speaker as a microphone - impedance matching circuit

- Variable Amplifier Impedance

- Various tube crossover circuits

- Very loud beeper (PDF)

- Voice / Audio Record / Playback Circuit

- Voice Message Recorder / Player (uses an obsolete voice recorder chip)

- Voice Scrambler

- Voice-Over Circuit

- Voltage controlled amplifier

- Voltage controlled audio panner

- Voltage Controlled Panner

- Voltage Controlled Panner

- Voltage Controlled Panner

- VU And PPM Audio Metering

- VU And PPM Audio Metering

- VU Meter Amplifier

- Warbler siren circuit diagram

- Weird Sound Generator

- **Miscellaneous schematics**

- 1.9 Kilojoule Coil Gun

- 10 GHz CW Radar based on a X-band Gunnplexer

- 12 Volt Toilet Tank Refiller

- 1uS light pulse descriminator plus F to V converter (PDF)

- 1uS light pulse receiver plus post amp (MISC)

- 2D3 Nixie clock schematic using Atmel microcontroller

- 6 Pole ElectroMagnet Motor (aka Simple Brushless motor)

- 741 Light Sensor

- A small collection of quick to build electronic circuit designs

- A spark throwing tesla coil made entirely of garbage

- A Two-Way Morse Practice Set

- Air flow detector

- Air flow detector using an incandescent lamp to detect airflow

- Amateur weather station to APRS interface ALWXI-01

- Analog opto-isolator

- Analog pulse counter

- APRS system for GPS tracking

- Assorted digital circuits

- Aurora Alarm: Automated Detection System for the Northern Lights

- Barry's Coilgun Mark I circuit diagrams

- Barry's Coilgun Mark II circuit diagrans

- Barry's Coilgun Mark III circuit diagrans

- Barry's Coilgun Mark IV circuit diagrans

- Barry's magnetic levitation project

- Basement doorbell beeper (PDF)

- Basic Homebuilt Discrete DTL gate circuits (Diode Transistor Logic)

- Basic opamp circuits

- Bat detector

- Beat Balance Metal Detector

- Biasing Op-Amps into Class A

- Big Ear Stereo Parabolic Microphone

- Black Light

- Bleeper box for time reference

- Broadband 2MHz optical fiber receiver (PDF)

- Broadband 5MHz optical fiber receiver (PDF)

- Build logic gates using discrete parts

- Build your own UFO Bino-Scope unit - upgrade binoculars to become a photosensitive bino-scope

- Build Your Own Video-Rate 2-photon Microscope

- Building a Hardware Random Bit Generator

- Capacitance to Voltage conversion

- Capacitive Sensor

- Cat or Dog Detector - can be used to control entry on a Cat or Dog Door

- Chaos generator

- Circuit diagram for Coilgun Pistol Pskov 1100

- Circuit diagrams for making logic gates from discrete components

- Circuit for driving a liquid crystal (LCD) shutter to simply pass or block light

- Circuit for gold wafer card

- Circuit for temperature stabilization of a MTP3055E MOSFET

- CMOS based electric fence design

- CMOS Logic Experiments

- Coil Coupled Operation Metal Detector

- Color sensor circuit

- Computerize Your Room/Home

- Count Accumulator for Radiation Levels (CARL)

- CW Tone Keyer

- Dekatron circuit diagram - device used for dividing by 10 during the valve era

- Delayed shutter control for Kodak DC-20

- Digg Button Kit

- Digital Call Sign Annunciator

- Digital Radar Speedometer

- Digital Remote Thermometer

- Dinsmore 1490 digital compass

- DIY Plasma Globe using an automotive ignition coil

- DIY Pulse Induction Metal Detector with circuit diagram, PCB layout and detection coil details

- DIY Tesla coil - DC Powered with Plasma Output

- Doorbell for the Deaf

- Driving N-channel FETs from TTL

- Easy Morse Code Keyer Circuit

- Eddie's Composting Loo fan controller

- Electric cockroach zapper

- Electric field disturbance monitor

- Electromagnetic field detector

- Electromagnetic Field Probe with Meter Output using an LF351 opamp

- Electronic canary doorbell

- Electronic dazer

- Electronic inclinometer ("clino"), a surveying device

- Fantastic Atom Expander

- FCTS Project

- FET based metal detector using MPF102 / J310 BF998 FETs

- Fish caller circuit

- Fluid level detector

- FM Morse Code Keyer

- Fogger smoke machine controller

- Full-duplex doorphone with 3 wires connection

- G Strain energy absorber

- Garmin Foretrex 101,201, Forerunner 101,201 to Serial DB9 cable schematic pinout

- Garmin GPS data interconnect

- Geiger counter

- Geomagnetic field detector

- GoldPic 3 Pulse Induction Metal Detector (has electronic kit available)

- GPS receiver support kit

- Hacking the Hot Wheels Radar Gun - includes circuit of analog front end

- Heathkit Groundtrack GR-1290 VLF metal detector circuit diagram and detector coil construction notes

- High Quality Intercom

- High Speed ISO9141 Interface using Motorola MC33290D ISO driver IC

- High voltage stun gun

- High voltage zappers

- High-speed 75MHz light receiver (PDF)

- Lost keys finder using HCF4069

- Low Voltage Alarm

- Low-power optical interrupter (PDF)

- Magnetic Gun.

- Magnetic levitation device

- Magnetic levitation project from Electronics Now, February 1996

- Magnetic levitation project from Popular Electronics, May 1966

- Magnetic levitation project from Popular Electronics, May 1989

- Mains Remote-Alert - Remotely operates beeper and/or a LED via mains supply line

- Marshmallow Bazooka with a PIC12F615 based capacitor discharge ignition system

- Metal Detector using a 2 Pulse Induction Coil (PDF)

- Mini efficient magnetic coil launcher from disposable camera flash

- Miniature magnetic gun (rail gun)

- Miscellaneous 741 opamp schematics

- Miscellaneous Circuits for Idea Purposes

- Miscellaneous simple circuits

- Mobile APRS / GPS tracking system

- Modifications for CDV700 Geiger Counter

- Modulated light receiver circuit (PDF)

- Monitor output from Motorola Oncore GPS engine in HP Z3801A in GPS Disciplined Oscillator

- Morse Code Beacon Keyer

- Morse code display

- Morse Code Practice Keyer 1

- Morse Code Practice Keyer 2

- Navigator 555A radio direction finder (RDF) circuit diagram

- Negative Ion Detector

- Negative Ion Generator

- Nocturnal Animals Whisker

- Nokia 3310 Lcd Thermometer using DS18B20

- omentary High Voltage Arc Circuit - can be used to Ignite a barbeque or a Gas in a Potato Gun

- Op Amp Comparator with Hysteresis with SPICE simulation

- Op Amp Precision Half-wave Rectifier including SPICE simulation

- Op-amp circuits for detectors, filtering, and power applications including photodiodes (PDF)

- Open loop pulse trigger module for coilgun

- Optical speed trap to measure the the velocity of the projectile

- Optical trigger module for coilgun

- PASCO scientific model SF-9211 stroboscope schematic (PDF)

- Photo sensor application note showing photodiode and phototransistor circuits

- Photodiode primer and interface circuit diagrams including photovoltaic and photoconductive modes

- Plant Watering Watcher (moisture meter)

- Popular Electronics Ultrasound Detector

- Power MOSFET module for coilgun

- Powerful stun gun / taser circuit diagram

- Project for experimenting with magnetic levitation

- Pulse Induction Metal Detector part 1 (PDF)

- Pulse Induction Metal Detector part 2 (PDF)

- Pulse width modulators (PWM)

- Pulse width to voltage converter

- Pulsed Induction Metal Detector circuit diagram and PCB layout

- Rain Detector

- Random noise generator

- Scaling ADXL50 accelerometer output

- Seismic detector interfaces to datalogger

- Select of interesting electronic circuits that require only a single transistor ideal for education

- Selection of run circuits to experiment with the 4017 CMOS decade counter chip

- SIM card reader circuit diagram

- Simple BFO metal detector using 2N3906 and 2N3904 transistors

- Simple DIY BFO metal detector

- Simple DTMF Repeater Controller using PIC16F84

- Simple electronic keyer

- Simple Frequency Reader for conversion VFOs

- Simple Lie Detector

- Simple metal detector based on a PIC12F683 microcontroller

- Simple moisture indicator

- Simple nitrogen spark generator (PDF)

- Single chip metal detecor with a range of a few inches based on CS209A

- Single-Supply AC Inverting Op Amp amplifier with SPICE simulation

- Small selection of useful circuits

- Solid state tesla coil

- Solid State Tesla Coil and Wireless Power

- Sony RS-422 ADAT sync cable pinout

- Sound finding cricket

- Sound finding cricket with phase detector

- Static Electricity / Negative Ion Detector

- Stroboscope

- Stun gun / taser circuit diagrams

- Suddent ionospheric disturbance (SID) receiver

- Switch debouncer circuits including transistor, CMOS logic and a 555 timer based design

- Tesla coil

- Tesla coil

- Tesla power receiver

- Texas Instruments collection of buffer op-amp circuits for ADC

- Texas Instruments collection of differential op-amp circuits (PDF)

- Three component bat detector based on a PIC12F683 microcontroller

- Three stage induced voltage triggered coilgun

- Thyristor fired coilgun circuit diagram

- Time to dust indicator - battery powered dust indicator (PDF)

- Touch activated switch using CD4011 CMOS NAND gate

- Touch sensistive touchpad based on a PIC16F627A micro

- Touch switch using transistors

- Touch switches

- Two-component metal detector using a 4093

- Two-tone doorbell using 555 timer

- u-Blox GPS receiver board

- Ultra Low Power LCD Indicator

- Ultrasonic dog whistle

- Ultrasonic Pest Repeller

- UltraSonic Radar

- Ultrasonic sonar unit using MAX232 to drive ultrasonic transducer

- Ultrasonic sound detector / sniffer

- Ultrasonic switch

- Ultrasonic transducer oscillator circuit

- Ultrasound detector

- Vareity of circuits for interfacing to/from TTL logic

- Variety of applications using a CMOS 4001 2-input NOR gate including a PCB layout

- Very basic circuits

- Visible and Infrared Light Detectors

- Voice activated switch (VOX) circuit diagram

- Voltage Comparator Information And Circuits

- Waveform conversion

- Weather station with pressure reading, relative humidity, indoor & remote temperature reading

- White's Surfmaster PI (pulse induction) metal detector schematic diagram

Models, remote control toys, robotics

- 0-10V control for RC servos

- 27Mhz toy car receiver

- 27Mhz toy car transmitter

- 5 Second Ramp Generator for Locomotive Sound Card Demonstration

- 5 Times Around Circuit

- 556 Timer Stall-Motor Switch Machine Drivers

- A dual alternating flashing light circuit

- A dual tandem flashing light circuit powered by a 9 volt battery

- A Receive Signal Decoder

- A selection of robotics projects

- Acceleration Sensing - gesture controllers for robotic musical instruments

- Across The Track Infrared Detectors

- Adding External Meters to DC Throttles

- Analog controller for TekBot robot

- Angelfire rocket GPS payload

- Audible Train Approach Warning Circuit

- Automatic - Railway Grade Crossing Circuit (2008 design)

- Automatic Railway Grade Crossing Flashers

- Automatic Reversing Circuit for Model Trains

- autopilot: Do it yourself UAV

- AVR Line Following Robot

- Balancing robot (PDF)

- Basic DC controller for model trains (PDF)

- Beam robot / insect based on a PIC16F818 microcontroller

- Block Occupancy Detector For DCC

- Build A Roomba Bluetooth Adapter

- Building an RF Remote Control System

- Charger board for TekBot robot

- Circuit diagram for connecting the SRF08/10/235 sonar modules to the BS2p Basic Stamp

- Circuit for three axis robot arm based on stepper motors out of 5 1/4" drives

- Collection of BEAM robot circuits

- Connecting Multiple SRF08 Sonar Modules to a BS2 (Basic Stamp 2)

- DCC - Zero Stretching Simulator (LM555)

- DCC Ammeter for Model Railways

- DCC Circuit Breakers

- DCC To DC - Accessory Power Supplies

- Deriving power from Lego NXT motor port A

- Discharger for Receiver Battery Packs

- Distance Sensing - devices for wireless distance and position determination

- Doppler radar based gesture measurement system capable of delivering positional information

- Downed model locator

- Downed model locator Mark 2

- Electronic millipede robot

- External power supply for Lego NXT

- FailureBot 5 - A Line Following Robot

- Fast Electronic Circuit Breaker for Model Railways

- First Across The Line Race Scorer Circuits

- Glowplug driver for radio control models

- GP2D12 distance sensor

- Grade Crossing Bell Ringer (LM555)

- Grouped DCC Block Occupancy Detectors

- Hexbot robot based on a PIC including source code and circuit diagram

- Incline Railway Control Circuit

- Java Bot - Simple line follower robot

- Launch controller for multiple rockets

- LED Out Circuit For Tortoise Switch Machines

- Lego compatible, compact rotation sensor

- Locomotive signal braking module

- Making a FRED photopopper

- Miniature line follower robot

- Model Railroad - Infrared Proximity Switch

- Model Railroad Odometer Car

- Model rocket launch controller

- Model rocket launch controller

- Model Train Diesel & Horn Sound Module

- Moderately complex train detector using an infrared LED and an infrared detector

- Motor controller board for TekBot robot

- Motor walker circuit

- Multi Rocket Launcher

- Pad launch controller for model rockets

- PC Controlled RC Car

- PIC-Bot II using Microchip PIC16LF84

- Precision Receiver Battery Low Voltage Alarm

- R/C digital camera controller

- R/C Emergency locator alarm

- R/C helicopter camera

- Rail Crossing Diamond Protection Circuit

- RC Receiver Battery Low Voltage Alarm

- RC Receiver for airplane (35MHz)

- Relay interface to R/C receivers

- RF Modem Robotics Project

- Robotic microcontroller board

- Roomba robotic vaccum cleaner serial interface

- School Bus Signals Circuit

- Signal braking module

- Simple flashing light circuit

- Simple flashing light circuit

- Simple flashing light circuit

- Simple Traffic Light Controller

- Simple train detector using ambient light and a photocell

- Simplest R/C circuit

- Simulate the Gyralite (dual flashing headlights).

- Single Traffic Light Driver Circuit

- Slot car TV cronograph displays the lap times of your model cars on a regular TV

- Sonar and PIR Sensor Board for TekBot / general robotics

- Tactile whisker for TekBot robot

- The Coat Hanger Walker - Simple BEAM robot

- Three Terminal Regulator Type Throttle (LM350K)

- Timed DC Throttle

- Timed Uncoupling Ramp Driver (LM555)

- Toy car hack to turn it into a synthetic rodent

- Traffic light controller with 20-output sequencing

- Train Mounted Camera Battery Charger

- Trooper - miniaturized Scout Walker 2 robot

- Turnout Anti-Derail Protection Circuits

- Two tone train horn

- Various radio control schematics

- Various Transistor Throttles Cicuit Schematics

- Walking robot

- Walking robot (PDF)

- Wire guidance sensor

Motor and general control schematics

- 12 Volt Differential Temperature Controller

- 35KHz Magnetic-Radiation Remote-Control

- 4 Digit Keypad Switch

- 4-bit receiver for DC motor control

- 555 Based Simple Servo Controller

- 556 Timer Stall-Motor Switch Machine Drivers

- 5A H-bridge motor driver based on TIP122 / TIP127 power transistors

- 6090 digital decoder schematics

- 9V Xenon photoflash controller (PDF)

- A Simple Repeater Fan Controller (PDF)

- AC Motor Speed Controller

- AC switching with TRIAC from TTL

- Arduindo based Appliance Remote Control

- Assorted relay control circuits

- Audio Signal Detecting Auto Power-On Unit

- Bipolar stepper motor driver based on 74194 chip

- Bridge head

- Brushless DC electric motor control by CPLD

- Charge coupled bi-directional power MOSFET relay (PDF)

- Circuit for soft start module for induction motor

- Clap activated remote control

- CMOS control voltage for firing Crydom Soft-Start Motor Module

- CO2 controller for planted tanks

- Constant Temperature Circuit

- Constant Temperature Circuit

- Control 120VAC relay with TTL

- Current loop interface

- Dark activated switch

- DAS1 - 12 Volt 10 Amp Dark Activated Switch

- DC Motor Control Circuit

- DC Motor Controller using 74 series chips

- DC Motor Driver with L6203

- DC Motor Reversing Circuit

- DC Motor-Driver H-Bridge Circuit

- DC Push Button Motor Control Circuit

- Delayed Power Circuit using an SCR

- Digital logic controller

- DIY Power Pulse Controller

- Dremel drill speed controller

- Driving a relay with a CPU

- DS1821 programmable thermostat

- Dual fan controller using ATTiny45 microcontroller

- Dual stepper motor drivers using UDN2540

- Dual Stepping motor drivers using UDN2540

- Electric heater thermostat

- Electronic circuit diagram of cell phone SMS remote control device

- Electronic Control for DC Motors Using Discrete Bridge Circuits (PDF)

- Fan control based on a TL082 opamp and IRF510 power MOSFET

- FAN Thermostat controlled by IR remote controller

- Finger touch activated switch (PDF)

- GSM SMS javljalnik ALSMS-01 (page in slovenian)SMS remote control project

- H Bridge controller for DC motors

- H Bridge Motor Control Circuits

- H-Bridge Circuit

- H-Bridge Motor Driver Using Bipolar Transistors

- Heating System Thermostat

- High And Low Voltage Cut Off With Time Delay

- High and Low Voltage Cutout with delay and Music

- High current H-Bridge motor controller circuit diagram

- High current PWM controller based around a 555 timer

- HIGH or LOW Power Switch For Lights or Small Motors

- Home Automation Over Internet

- Homemade Water Drain Pump controller

- Hot Water Tank Level Indicator

- How to Make a PWM Circuit without a Microcontroller

- LDR light/dark activated relay switch

- Light / dark activated relay

- Light detector

- Light Operated Switch

- Light switch using LDR

- Light/dark detector

- Light/Dark Detector drives a relay

- Line-powered Xenon flash transmitter (PDF)

- Machine vibration triggers hour meter (PDF)

- Mains Power Load Sensing Automatic Switch

- Micro-step driver - connect a bipolar steppe motor to a PC through the parallel port

- Microstepping with PBM3960 and TEA3718

- Modular relay system

- MOSFET H-BRIDGE schematic and theory

- Motor speed controllers

- MotorDriver V1.0 - Dual DC Motor Driver Board (LMD18200T based, 55V 3A, 6A peak) - PDF

- No-Hum Fan Controller

- NPN transistor circuit for relay control (relay driver)

- One component stepper motor driver

- Op Amp based PID Controller circuit with SPICE simulation

- Optically isolated stepper motor controller

- Optically isolated TRIAC driver

- Over / Under Voltage Cut-Out

- PA fan temperature controlled speed motor speed controller

- Pulse width mododulator using 555 timer IC

- Pulse Width Modulation DC Motor Control

- Pulse Width Modulation DC Motor Controller

- Push Button Motor Control Circuits

- Pushbutton one-shot and latch (PDF)

- PWM DC motor control with SG3525

- PWM DC motor driver and control with SG3525

- PWM DC Motor Speed Control

- PWM Heater fan controller based on PIC12F675

- PWM motor controller

- PWM Motor Speed Controller / DC Light Dimmer

- PWM Motor Speed Controller / DC Light Dimmer

- PWM Motor/Light Controller circuit diagrams

- Radio Remote Control using DTMF

- Relatively simple thermostat circuit diagram

- Relay circuit for relay control via an RS232 port

- Relay circuit using 74LS573 to driver 5V DC relays

- Relay controller based on Microchip PIC16F84 (PDF)

- Remote Motor Controller

- Rolling code 4-channel UHF remote control

- Safe Universal Mains Switching Box

- Selection of PWM driver circuits for electric DC motors

- Serial servo controller

- Several stepper motorol control circuits

- Shadow activated (or hand wave) motion detector

- Simple 120 VAC motor speed controller based on a TRIAC

- Simple keypad operated switch

- Simple Servo Controller using 555 Timer

- Simple temperature regulated FAN speed controller

- Simple Two Speed Contactor DC Motor Controller

- Smart switch, short press for on, longer press to turn off

- Smooth, fast, strong and cheap stepper motor controller using a PIC micro

- Solenoid starter

- Solid state relay (PDF)

- Solid-state power controller

- Sound operated switch

- Stepper motor controller

- Stepper motor controller

- Stepper Motor Controller using 4027 flip-flop and 4070 XOR gate

- Stepper motor driver circuit diagram

- Stepper Motor Driver using L298 and L297

- Stepper motor driver using PIC12F675

- Stepper motor driver using PIC12F675 that offers serial port command interface

- Stepper Motor Driver using TEA3718/3717

- Stepper motor positioner

- Switching solenoid driver

- Temperature monitor using 741 opamp

- Thermal cooling fan controller

- Thermo-Fan to keep your amplifier or other equipment cool

- Three electronic circuit diagrams for thermal controllers including linear and PWM control

- Time Delay Relay

- Time Delay Relay II

- Touch switch

- Touch switch based on CD4011 flip-flop

- Touch Switch using 4011 CMOS NAND Gate IC

- Touch Switches

- Two-button control for dangerous machines

- Unipolar and bipolar stepper motor driver circuits using 74194 and ULN2803

- Unipolar stepper motor driver based on 74194 chip

- Variety of simple motor control circuit diagrams using SCR or TRIAC

- Various CNC mill circuit diagrams and other DIY CNC mill information

- Voice activated switch using MC2830

- Voltage comparator switch

- Water Detector With Sump/Bilge Pump Controller

- Water system controller (PDF)

- Wireless RF PWM dual motor controller

- ## **Music related schematics (also see Audio)**

- 100W Guitar Amplifier Mk II

- 2 Note Ribbon Controller

- 25-pin PC serial port to MIDI synthesizer interface cable

- 3 Channel Color Organ

- 8 Note Tune Player

- 8 note tune player

- 9-pin PC serial port to MIDI synthesizer interface cable

- A refined Fuzz Face. Schematic and PCB layout.

- Amiga MIDI interface

- Ampeg SB-12 Portaflex adapted for use as a bass overdrive stompbox

- An ultra-flexible tonestack with clean boost. Schematic, photo, and PCB/perfboard layouts.

- Apple Mac to MIDI synthesizer interface cable

- Apple Macintosh MIDI interface schematic (basic version)

- Apple Macintosh MIDI interface schematic (deluxe version)

- Arduino MIDI interface (Arduino MIDI Drum Kit and Spooky Sound Trigger)

- B. Blender: Blends an effects chain with the input signal. Works well with bass guitar

- Bassline synthesizer/sequencer

- Big Muff Pi variant using Bazz Fuss as clipping stage. Schematic and and PCB/perfboard layouts.

- Boogie MkI adapted for use as a distortion stompbox

- Build A Stereo Synthesizer

- CD4049 based distortion. Schematic, PCB/perfboard layout, and photos.

- Closer look at the FET booster based on a vintage Fender 12AX7 input stage.

- Colour (Sound) Organ

- Colour (Sound) Organ

- Colour Organ based on a PIC16F84 microcontroller including schematics and source code

- Compact DJ station

- Daisy MP3 player project

- Digital Delay Unit For Surround Sound

- Digital Guitar Tuner

- Distortion effects using an LM386 audio amplifier IC

- DIY Serial MIDI Interface (80C51/80C31 Version)

- Drawdio - A very simple musical synthesizer that uses the conductive properties of pencil graphite

- Drum percussion sensor schematics

- Drum Tone Oscillators

- Dual parallel buffered effect loops with blend control. Schematic and perfboard/PCB layouts

- Electronic metronome

- Faux-phaser circuit with LFO and manual (wah pedal) modes. Schematic and and PCB layout.

- Fender Princeton adapted for use as a distortion stompbox

- [FET overdrive developed as a Tube Screamer alternative. Schematic and perfboard layout.](#)

- [Guitar Fuzz Effect](#)

- [Guitar fuzz effect](#)

- [Guitar Reverb Effect Version 2](#)

- [Guitar Reverb Pedal](#)

- [Guitar Reverb Pedal](#)

- [Guitar Tremolo Unit](#)

- [Guitar Vibrato Unit](#)

- [Guitar Vibrato Unit Circuit Diagram](#)

- [Homebuilt MP3 Player](#)

- [Improved Silicon Fuzz Face. Schematic, build notes, photo, and PCB/perfboard layouts.](#)

- [Infinite melody for music synthesizers](#)

- [JT-11P-1 in 4-Way Active "Guitar Splitter" (PDF)](#)

- [Liquidator Tube Phaser/Chorus Effect](#)

- [Lossless portable digital audio player using the Microchip PIC32](#)

- [Marshall 100W Super Lead adapted for use as a distortion stompbox. Schematic and PCB layout.](#)

- [Marshall 18W adapted for use as a distortion stompbox](#)

- [Matchless DC/30 adapted for use as a distortion stompbox](#)

- [Metronome Circuit](#)

- [Microcontroller MIDI interface](#)

- [MIDI Controller Footpedal](#)

- [MIDI Drum Machine Analog Input Schematic](#)

- [MIDI drum machine project](#)

- MIDI interface / cable tester

- MIDI keyboard circuit diagram

- MIDI merger schematic

- MIDI Pedalboard Encoder

- midi2cv8 to Drum Tone Board Connections

- Midibox 64

- Miniature metronome

- MP3 Player circuit schematic

- Mr Smooth is a clean boost to mild overdrive effect

- Mr. EQ - a simple, yet potent DIY equalizer

- Music player built on microcontroller AT91SAM7S256 with ARM core

- Musical Instrument (Expandable) Graphic Equaliser

- New clipper circuit diagram (based on TL071 opamp)

- Octave screamer

- Peppermill overdrive - A simple, transparent overdrive. Schematic and PCB/perfboard layouts.

- Percussion generator circuits

- Portable Mixer with high-quality modular design (9V battery powered)

- Portable MP3 music player

- Practical MS Decoder Circuit

- Real-world MIDI interface platform project including circuit diagram and PCB design files

- Schematic of a Rockman-like distortion. Schematic and PCB/perfboard layouts.

- Selection of solid state and tube guitar amplifier and effects circuits

- Serial MIDI interface

- [Simple Colour Organ](#)

- [Simple colour organ](#)

- [Simple line mixer](#)

- [Simple metronome using LM1458](#)

- [Simple MIDI switcher](#)

- [Simple MIDI tester](#)

- [Simple open source MP3 player with SD/MMC memory card support](#)

- [Simple Transistor Organ](#)

- [Sound Effects Generator](#)

- [Sound Effects Generator 2](#)

- [Sound Lab Mini-Synth analog music synthesizer](#)

- [Spring reverb](#)

- [Spring reverb unit](#)

- [Spring Reverb Unit For Guitar](#)

- [Spring Reverb Unit For Guitar or Keyboards](#)

- [Stage center reverb unit circuit schematic](#)

- [Standard MIDI to MIDI interface cable diagram](#)

- [Stereo Width Controllers](#)

- [Supro 16T adapted for use as a distortion stompbox](#)

- [The 203 Theremin - A Battery-Operated Version of the Wien-Bridge Theremin](#)

- [Theremax Theramic Circuit Schematic](#)

- [Theremin](#)

- [Theremin controller](#)

- [Tone Filters for Electronic Organs (PDF)](#)

- Transistor organ

- Treble Booster/Overdrive including a perf board circuit layout

- Tube Screamer-based overdrive. Schematic and PCB/perfboard layouts.

- Two channel distortion circuit

- Ultra Simple Bass Guitar Compressor

- Umble - A distortion stompbox, inspired by Dumble amplifiers. Schematic and PCB/perfboard layouts.

- Using the Hot Springs Reverb reverberation unit

- Versatile FET booster engine. Schematic and perfboard/PCB layouts.

- Vocal zapper

- Vox AC-30 Top Boost adapted for use as a distortion stompbox

- Wave Multiplier for music synthesizers

- Wireless guitar transmitter

- Zonk Machine and Treble Booster

PC related schematics

- 160 Baud ALDL Hardware Interface

- 300/1200 baud BAYCOM MODEM (revision and improved)

- 3-axis stepper motor controller for PC parallel port

- 7 segment rolling display using PC

- 8-way relay interface board for PC parallel printer port

- 9-pin null modem cable

- A Serial Infrared Remote Controller

- ADMS programming Cable for the Yaesu FT50, VX1 and VX5

- Analog Signal Acquisition for PC Printer Port

- Apple II/II+/IIe IDE Drive Interface

- Assorted computer interface circuits

- Basic Stamp I & PC Relay Controller

- Bell 202 and CCITT V23 Compatible FSK Modem Circuit

- Build your own iRDA SIR Transceiver (Dongle) using MCP2120

- Build your own MARES dive computer IRIS interface for RS232

- Building an Infrared Transmitter for Your PC

- CCD linear image sensor to PC parallel interface

- Circuit for interfacing a relay / solenoid to a PC based on a 2N7000 FET

- Circuits to computerize your room/house

- CNC controller that interfaces directly to a PC parallel port without using a microcontroller

- Commodore 64 24-bit parallel port interface with 8255

- Computer Controlled Frequency Counter/Logic Probe

- Computer microphone

- Connect other circuits to PC joystick port

- Connect two CD-ROM drives to one soundcard

- Convert Atari-style joystick to PC joystick port

- Dallas DS1620 based USB Digital Thermometer

- DB-9 Connector to DB-25 (both RS-232)

- DCF77 receiver to PC RS232 serial port interface

- Ericsson phone to PC serial port interface

- Ethernet interface for Commodore 64 computer

- Extremely simple ADC for the PC (parallel port interface)

- Fake Joystick circuit

- Fax to modem interface

- FM radio for a PIC (uses TDA7000 IC which is now obsolete)

- FM radio with PC parallel port interface

- Game boy camera PC serial interface

- General purpose ISA interface card for PC

- Get power out of PC parallel port

- Get power out of PC RS-232 port

- Getting power from RS-232 interface

- GPS receiver (Gamin, Eagle etc) to PC interface cables

- HAMCOM & SoundCard MODEM using serial- or soundcard audio

- HAMCOM (SSTV, RTTY, FAX...) modem using PC-speaker for TX

- HAMCOM (SSTV, RTTY, FAX...) modem using serial audio for TX

- Hardware and software project which enables a PC to measure frequencies of over 20MHz

- Headphone driving circuit for soundcards

- Hi-Fi PC Speaker System

- Homebuilt RS232 LCD Interface

- Homemade Serial to Nokia MBus Interface on a PCB, without using Zener diodes

- How to construct Garmin GPS receiver interface cables

- How to get power from PC to your circuits

- i2c-tiny-usb, a simple i2c interface for the usb port

- iLINK Interface

- Interfacing 16x2 character :LCD to parallel port

- [Interfacing PC sound card to SSB rig](#)

- [iRDA interface for motherboard using Vishay TFDS4500](#)

- [Isolated Full Duplex RS232C Interface](#)

- [Isolated Full Duplex RS232C Interface for a PC](#)

- [Isolated RS422 adapter for PC serial port](#)

- [Jasmin floppy disk controller schematics](#)

- [Laptop Computer Serial Port Power Booster](#)

- [LCD2LPT with LIRC (LCD to LPT printer port) interface](#)

- [LCD2USB, cheap open source text LCD interface](#)

- [Linux Infra-red Remote Control (LIRC)](#)

- [Mac Serial Port (RS-422 DIN-8) to RS-232 DB-25](#)

- [Mac to HP48 cable pinout](#)

- [Machine Independent Parallel Interface](#)

- [Magnetic card reader to PC RS-232 port interface based on a PIC12F675 micro](#)

- [MIDI cable for Sound Blaster cards](#)

- [More accurate PC/AT clock](#)

- [MS-DOS EEPROM Programmer](#)

- [New and Improved Sound Card Packet Interface tested with PSK31 and APRS](#)

- [Null Printer Adapter](#)

- [Parallel (Printer) Port Interface](#)

- [PC based digital thermometer based around a Dallas Semiconductor DS1621](#)

- [PC based Frequency Meter](#)

- [PC based thermometer based on Dallas DS1621](#)

- [PC electrically isolated RS422 interface using SN75176B or MAX485](#)

- PC electrically isolated RS485 interface using MAX487 or SN75176B

- PC interface for point controller

- PC ISA board containing a Z80 microprocessor (coprocessor card)

- PC ISA Card Random Number Generator

- PC parallel port eight DC power switch cam driver two unipolar stepper motors, lights etc

- PC Power Reboot Circuit for ATX power supplies

- PC serial port parastic mode interface for 1-wire DS18S20 and similar 1-wire temperature sensors

- PC speaker volume control circuit

- PC thermometer using PC game (joystick) port

- PC-based ISA data acquisition and control board

- PG31 GPS RS232 GPS development board

- PG31 GPS RS232 USB development board

- PG4S programming Cable for the Kenwood TM-V7 and TM-G707

- Pic-Plot GPIB to RS-232 converter

- Pic-Plot2 GPIB to USB converter

- PS/2 Keyboard Or Mouse based on an Arduino

- PTT and soundcard interface for the TM255/455

- PTT and/or soundcard interface

- Radio clock for PC's

- Radio Interface Box for the Motorola Radius GP300

- Relay interface add-on board for PC

- RFID evaluation kit for PC serial port (PDF)

- RS232 - Lowe HF-225 interface

- RS232 DB-9 switch to flip between two serial ports

- RS-232 line monitor and loopback cables

- RS-232 Protocol Analyser

- RS232 RS485 USB Converter Board

- RS232 serial to USB converter cable circuit schematic

- RS-232 surge protection

- RS232 to RS485 converter schematic to connect PC to RS485 network

- RS-232 to TTL cable

- RS-232 to TTL level translator

- RS232C Level Converter

- Sanyo 20EZ monitor circuit diagram

- SB-Bus Drivers Introduction and Circuit Diagrams

- Schematic of a standard PC joystick

- Sega 3D glasses interface circuit diagrams

- Serial port temperature datalogger

- Serial servo controller for interfacing hobby servos via RS232 to a PC

- Serial to parallel converter - connect a large number of digital outputs to a PC parallel port

- Short circuit protected power supply from PC 12V supply

- Simple and easy build RS232C-RS485 converter

- Simple Hankel USB oscilloscope for a PC

- Simple music synthesizer for an ATARI

- Simple Parallel (Printer) Port Interface

- Simple PC SmartCard reader

- Simple PC thermometer for serial port but using R/C network for measurement

- Simple RS232 Level Converter based on a MAX232 including Eagle PCB and schematic files

- Simple RS-232 serial port buffer circuit

- Simple RS232C Level Converter using Transistors

- Simple stepper motor driver for PC parallel port

- Small circuit and PCB layout for recording to PC Sound Monitor / Pre-amp

- SmartCard PC Emulator

- Sound Blaster Microphone Preamplifier

- SPDIF RCA to (Optical + RCA) Adapter

- Stepper motor controller for PC parallel port

- SWTP PR-40 Printer Interface Schematics

- The Great Z80 Computer Project

- The KD2BD Pacsat Modem

- Thermal fan control circuit designed for overclocked PCs

- TiltStick, a motion sensing device (USB interface to accelerometer)

- TM-441 9600bps packet modification

- Transceiver to PC interface with a hardware DTMF detector and galvanic isolation (PDF)

- Transceiver to PC soundblaster interface for digital operating modes (PSK-31, RTTY, SSTV etc)

- USB camera circuit

- USB LCD/VFD Controller Hardware

- USB to parallel port converter using Cypress CY7C68013A-56PVXC

- Using a PC power supply as a benchtop power supply

- Using the joystick port as general purpose input

- Various sound card interfacing circuit diagrams

- Virtual USB Keyboard based on an Arduino

- Yaesu FT-897 - PC interface (PDF)

- Yaesu VX-7 / VX-7R to PC interface

- Z80 Computer

- ## PDA / music player interfaces and schematics

- 1.5V iPod Microphone (PDF)

- Aladin interface

- Apple iPod and iPhone dock pinout

- Casio calculator interface schematic

- Casio datalogger

- Design and build your own iPod docking station

- DIY iPhone 3G Charger circuit

- DIY iPhone Charger circuit

- DIY Microphone Cable for iPod Touch (2nd Gen)

- Fitting a JTAG interface to an iPAQ 3600

- Gameboy MIDI interface circuit schematic and notes on Linux development for Gameboy

- Interfacing ADXL202 accelerometer to PalmPilot

- iPod / USB MP3 charger using MC34063 switchmode regulator

- Mass storage and printer interface for the FX-700P calculator

- Palm Keyboard interface board

- Palm PDA based datalogger

- Palm Pilot, Palm III, V, VII, VIIx, Handera interface port pinout

- PalmPilot turbo boost guage interface

- Portable iPod charger

- Serial interface adapter for iPod Linux

- SHARP palm-top/hand-held to RS232 serial converter

- SHARP palm-top/hand-held to RS232 serial converter

- TomTom One V3 connector pinout

- USB charger for iPod using 7805 linear regulator

- Wireless local network for PalmPilot (large PDF)

Photography related electronic circuits

- A DIY Arduino Intervalometer (shot timer) for your Canon SLR with circuit and source code

- A home-made light-operated camera trigger using the stamp microprocessor

- A simple home-made light-operated camera trigger

- AI-1 ("All-in-one") Remote - photographic accessory that you can build

- Arduino based laser trigger for a DSLR camera using an LDR to detect when the beam is broken

- Arduino based motion triggered camera using a PIR sensor

- Arduino based photography intervalometer including circuit schematic and source code

- Arduino based Time-Lapse Camera Controller

- Beam-break Detector For Camera Shutter or Flash Control

- Building a Digital Intervalometer - includes circuit diagram and suggested layout

- Camera Axe open hardware and open software project for camera triggering

- Camera remote control system using Basic Stamp

- CamTrig - A home-made light-operated camera trigger

- Canon DSLR cable shutter release usin 4N25 for optical isolation

- Computer controlled EOS camera shutter trigger

- Computer Sound Port Shutter Tester

- Computerized Shutter Control of Canon DSLRs

- Control your camera (Canon DSLR) with your Palm PDA

- Controlling your SLR Camera from an Ipod

- Darkroom camera shutter timer

- Densitometer & Intervalometer projects

- Densitometer & Intervalometer projects including hand-drawn block diagrams only

- Digital cameras (AGFA, Olympus) to PC (COM) cable pinout

- DIY Intervalometer for a Canon SLR camera

- Dual cable (serial + USB) for Nikon Coolpix cameras

- Electronic shutter release with ultrasonic remote control

- Flash Slave Trigger

- Flash slave trigger

- Flash Slave Trigger for Digital Camera

- High speed flash photography for amateur photographers

- High-speed flash photography for amateur photographers (includes several circuit diagrams)

- Homebrew Wired Remote for Canon EOS 350D Camera

- How to Build Your Own Light Meter (PDF)

- Infrared remote control with intervalometer function for Nikon cameras

- IR Remote Control for Nikon cameras, standard version

- Kodak DC-20 camera interface (PIC12C509)

- [Kodak DC-20 camera interface (PIC16F84)](#)

- [kShutter: Simple remote shutter for Nikon Coolpix camera](#)

- [kShutter2: Advanced remote shutter for Nikon Coolpix cameras](#)

- [Large collection of strobe / photoflash circuit diagrams](#)

- [Lightning Activated Camera Shutter Trigger](#)

- [Lightning Activated Camera Shutter Trigger](#)

- [Lightning activated camera shutter trigger](#)

- [Lightning shutter trigger for a camera using an Arduino](#)

- [Making your own RS-60E3 Remote Control for Canon EOS cameras](#)

- [Nikon Coolpix 950 / 990 / 995 Flash-adapter](#)

- [Nikon IR-Remote Control based on Atmel ATtiny13](#)

- [Nikon programmable memote / intervalometer](#)

- [Programmable Hi Speed Flash & Camera Trigger](#)

- [Programmable Optical Slave Flash Trigger for Digital Cameras using PIC12F675](#)

- [Remote shutter (or 'cable release') for SLR and DSLR cameras](#)

- [Sea & Sea TTL (Motormarine II, SX-1000) Flash Interface (underwater photography flash)](#)

- [Serial cable for Casio QV-200 digital camera](#)

- [Simple sound syncronizer / sound activated shutter trigger for amateur photography](#)

- [Slave flash trigger](#)

- [Slave Flash Trigger Circuit](#)

- [Slave flash trigger with counting logic (Silicon Chip Mazine article)](#)

- [Stop Action 3D-Photography using an audio flash trigger](#)

- [Timelapse photography with the Canon 10D using a 555 timer based circuit](#)

- Universal Exposure Timer and Event Counter

- Universal sound and optical slave flash trigger

- Using an Apple II+ Computer as a Flash Intervalometer (PDF)

- ## **Power supplies and control schematics**

- +9V *and* -9V from one battery

- 0-14 volt, 0-2 amp current limited variable power supply regulator

- 12 Vdc - 120 Vac Inverter Schematic

- 12 volt battery monitor

- 12 Volt Gel Cell Charger

- 12 volt power supply

- 12 Volt Switching Power Supply circuit diagram and PCB layout

- 12V 30A power supply

- 12V Lead-Acid Battery Monitor using LM3914

- 12V to 120V Inverter

- 12V, 4-AA Cell Differential Temperature Charger

- 13.8V 30-40A Power Supply (PDF)

- 1A Variable Regulated Power Supply

- 200 Watt Modified PC Power Supply 13.5 Volt 14 Amp

- 3.3V / 5V Regulated Power Supply Circuit

- 3rd harmonic distortion meter for measuring the quality of AC supply

- 5 volt power supply

- 500W low cost 12V to 220V inverter

- 6V to 12V Converter

- 6V to 12V Converter

- AC Power Meter

- Active Power Zener

- Adjustable power supply using LM317

- Adjustable Voltage Regulator using a 7805 or other fixed linear voltage regulator instead on LM317

- Advanced High Voltage PSU circuit

- Alkaline battery charger

- Alternative power source for Magellan GPS receivers

- Amplified zener regulator

- Assorted power source and control circuits

- Automatic 12V Lead Acid Battery Charger

- Automatic 9V NiCad battery charger

- Back And Forth - Bidirectional Bipolar Stepper Motor Driver

- Basic 78xx series regulator mains power supply circuit diagram

- Basic Power Supply

- Basic Solid State Relays

- Basic UPS Power Supply

- Battery Characterizer

- Battery Charger Ideas

- Battery Charger, Current and Voltage Regulated for Sealed Lead Acid batteries

- Battery Low Voltage Beeper

- Battery Low Voltage Beeper

- Battery voltage monitor

- Bench power supply that allows a number of varying output voltages to be preset. Includes PCB layout

- Breadboard supply - very low dropout adjustable power supply

- Build A 10 Amp 13.8 Volt Power Supply

- Build a breadboard power module for integrated circuits

- Build A High Performance Voltage Regulator From Discrete Components

- Build A Simple Rechargeable CMOS Battery

- Car Ignition Coil Driver from 110V AC

- Car Ignition Coil Driver from 12V DC - Can be used as an electric fence

- Charge Monitor for 12V lead acid battery

- Charger for gel lead acid batteries

- Cockcroft-Walton voltage multipliers (PDF)

- Compressor-mate power protection for refrigerators, freezers and air conditioners

- Controller for hybrid (photovoltaic- wind turbine and diesel engine) power plant

- Current booster for 78nn series voltage regulators

- DC to AC inverter using a 555 timer

- DC Voltage and Current Source

- Digital bench power supply based on a PIC16F870

- Dual (postive and negative) 12V power supply

- Dual Polarity Power Supply

- Dual Polarity Power Supply

- Dual Polarity Unregulated PSU For High-End Audio Amps

- Dual power supply

- Dual regulated power supply

- Dynamo Current and Voltage Regulator

- Efficient unipolar stepper motor driver (only uses power when it makes a step)

- Emergency power system

- Expanded Scale Battery Volt Meter

- Expanded Scale Battery Volt Meter

- Filtering PC bus POWER

- Fixed Voltage Power Supply

- Fixed Voltage Power Supply

- Flyback transformer driver

- Fuse blown indicator

- Fuse monitor / alarm

- General purpose portable DC power supply using rechargeable C cells

- Generating -5VDC from +5VDC

- Gyrator circuit

- High Current Power Supply

- High Current Power Supply

- High current regulated power supply

- High Side Current Monitors (LM358, Zetex - ZXCT-1009)

- High Voltage Converter: 90V From 1.5V

- High voltage DC generator

- High Voltage High Current Power Supply

- High Voltage High Current Power Supply

- High-Voltage Pulse Generator

- HV supply: 12VDC in, 12KV out

- Inverter, 12 volt unit, MOSFET design

- Inverter, A 12 volt unit, Very Basic type

- Lead acid battery charger with float

- Lead/acid battery charger

- Lead-Acid Battery Monitor

- LED battery voltage monitor. A fuel gage for your gel cell battery.

- Lithium Battery Rejuvinator

- Lithium Ion Battery Charger based on a PIC micro including circuit diagram and source code

- LM311 Thermostat circuit diagrams

- LM317 Regulator Circuit

- LM3914 battery monitor

- Low Battery Voltage Cutout Circuits

- Low Power LED Voltmeter

- Low Power LED Voltmeter

- Low Voltage Alarm for batteries and other volatile DC power sources

- Low-dropout 12V regulator (LM324)

- Machine power loss beepter (PDF)

- Multiple voltage power supply

- N.O. Magnetic Reed Switch ON /OFF Circuit (SCR equivalent)

- Nagative voltage generation using 555 timer

- Negative Supply from single positive Supply using 555 timer

- Negative voltage generator

- Nicad battery charger

- NiCad Discharger for Tx & Rx Packs

- NiCd Cell Charger

- Nine Volt Battery Eliminator

- One 9V battery gives +18, +25, +33V

- Op-Amp Current Source with Floating Load including SPICE simulation

- Power reminder beeper (PDF)

- Power supply metering circuits for measuring both voltage and current

- Power supply provides +5VDC regulated, +10VDC unregulated and 7.5VAC

- Preselect Twin Coil Switch Machine Circuit

- Pulse Charger for reviving tired Lead Acid batteries

- PWM DC Motor Speed Control

- PWM Motor Speed Controller / DC Light Dimmer

- PWM Motor/Light Controller

- PWM Motor/Light Controller

- PWM Motor/Light Controller variants

- Regulated 12V supply

- Regulated Power Supply Circuits

- Simple +5V power supply circuit

- Simple Capacitance Multiplier Power Supply For Class-A Amplifiers

- Simple constant current source

- Simple DC Adapter Power Supply

- Simple NiCad battery charger using LM317

- Simple supply with 1% current and voltage regulation using a IRFZ34 MOSFET

- Simple switching power supply

- Simple switching power supply (mains operated)

- Simple switching regulator (experimental)

- Simple voltage booster based on Linear Technologies LT1372, includes PCB design

- Single to 3-phase power conversion

- Small battery-powered USB charger including circuit diagram and PCB layout

- Snowmobile GPS power adapter

- Solid state relay circuit

- Solid State Tesla Coil/High Voltage Generator

- Student DC power supply

- Team digital - SCR16 - Twin Coil Switch Machine Adapter

- Temperature Controlled Nicad Charger

- Temperature Controlled NICD Charger

- Tesla coil / HV generator

- Transformer Secondary Voltage Reduction

- Transformerless Power Supply

- Transformerless Power Supply

- TTL power supply with crowbar protection

- Unplugged power cord alarm

- Unregulated power supply

- USB charger

- Using Pass Transistors Beef Up Voltage Regulator current output

- Variable Dual Lab Power Supply

- Variable power supply

- Voltage and current regulated power supply

- [Voltage doubler](#)

- [Voltage Inverter](#)

- [Voltage Inverter](#)

- [Voltage inverter](#)

- [Voltage Inverter using 555 Timer](#)

- [Voltage Inverter using LM380 audio amplifier IC](#)

- [Voltage Monitor using UA741 operational amplifier](#)

- [Voltage monitor with LED indicator](#)

- [Windmill DIY Analog MPPT (maximum power point tracker) Circuit](#)

- ## **Radio-frequency schematics (also see Transmitters)**

- [1 Watt 2.3 GHz RF Amplifier Using a MRF2001](#)

- [1.5 W RF Power Amplifier type class-C](#)

- [10 meter (28MHz) band RF amplifier](#)

- [10 MHz WWV Receiver](#)

- [115200 RS232 QPSK RF modem project](#)

- [118MHz to 136MHz aircraft receiver circuit diagram](#)

- [1300MHz - 1500MHz antenna with amplifier based on two MAR-8 RF amplifiers](#)

- [136 kHz direct conversion receiver](#)

- [14MHz SSB 10mW Transceiver](#)

- [15M CW Transceiver Design](#)

- [160m mini portable End Fed Half Wave Tuner - MkII](#)

- [175KHz inductive pulse receiver (PDF)](#)

- [17M to 6M transveter](#)

- [18 dB LT1253 DDS Amplifier](#)

- [2.3 GHz Power Amplifiers](#)

- [20 Meter CW Transceiver](#)

- [20 meters CW QRP Transceiver (PDF)](#)

- [20 Watt GaAaFET Power on 2.3 GHz](#)

- [200-400 MHz voltage controlled oscillator (PDF)](#)

- [20dB VHF Amplifier](#)

- [222 MHz Transverter](#)

- [23 dB Bipolar DDS Amplifier](#)

- [2304 and 3456 MHz Power Amplifiers](#)

- [2m (144MHz) Dual Gate FET Low Noise Amplifier](#)

- [2N2222 40 Meter CW/DSB Transceiver](#)

- [30 Meter, Discrete Component CW Transceiver Built Manhattan-style](#)

- [30 W Digital Wattmeter for RF (0-500MHz)](#)

- [30 watt FM linear amplifier](#)

- [300 baud RF modem circuit schematic](#)

- [30M Direct Conversion Receiver Project](#)

- [30M PSK31 Transceiver](#)

- [4 channel 433MHz remote control transmitter / receiver based on SM5162 and SM5172 chips](#)

- [40 Meter Band Direct Conversion experimental receiver](#)

- [40 Meter Popcorn Superhet Receiver](#)

- [40 Segment LED S-Meter](#)

- [40 to 6 Meter "No Tune" Transverter](#)

- [40m band direct conversion receiver](#)

- [42 Mc Band to 88 Mc Band (retrofit converter) Project](#)

- [450-2000KHz AM receiver (ZN414)](#)

- [455 Khz MF to AF converter used for DRM reception in a Yaesu FRG-100 receiver](#)

- [45-860MHz Radio receiver based on UV916-tuner](#)

- [49MHz walkie-talkie](#)

- [5 tubes SSB QRP Transceiver for 20m Ham band](#)

- [5 watt, 80 meter QRP CW Transceiver](#)

- [50 MHz Receiver based on MC3372](#)

- [50 MHz to 10 MHz receive converter](#)

- [50MHz converter project based on a NE602/SA602/NE612](#)

- [50MHz RF Power Amplifier using BFG97](#)

- [50O Load and Power Meter](#)

- [555 Time-Difference-Of-Arrival RDF](#)

- [56K RF Modem](#)

- [6 Meter SSB transceiver](#)

- [60-120MHz FM receiver with AFC](#)

- [60W Linear amplifier using IRF840 power MOSFET](#)

- [60W RF linear amplifier using IRF840](#)

- [6m SSB & CW QRP transceiver](#)

- [73MHz remote controller hallogen light](#)

- [75 Meter QRP SSB Transceiver](#)

- [78-80 MHz Superfast Scanner using a DDS (direct digital sythesizer)](#)

- [7MHz SSB Transceiver](#)

- 80 Meter CW ARDF receiver

- 80 meter direct conversion receiver

- 80m band direct conversion receiver

- 80m SSB & CW QRP superhet transceiver

- A compact L-match ATU for portable use

- A Multimode Phasing Exciter for 1 to 500 MHz from ARRL (PDF)

- Active antenna 1 to 20dB, 1-30 MHz range

- Active Antenna AA-7 HF/VHF/UHF, 3-3000MHz

- Active Antenna Experiments

- Active Antenna for AM-FM-SW

- Active RF antennuator

- Advanced VHF power meter (PDF)

- Aircraft Radio Communications Receiver

- AM BCB radio receiver

- AM receiver circuit diagram

- AM receiver for aircraft communications

- AM Short Wave Broadcast Receiver circuit diagram

- AM to FM conveter

- AM/FM/SW active antenna

- AM-Receiver for Aircraft communication (118.250MHz)

- An end-fed antenna, L-match coupler and resistive bridge for HF

- An Inexpensive Tone Encoder

- Assorted RF circuits

- Audible S-Meter

- Aviation band receiver

- Basic 10GHz / 24GHz gunplexer / gunn diode control circuit (PDF)

- Basic RF oscillator

- Basic Vox Circuit

- Beat frequency oscillator for AM/SW radio receivers

- Bi-Directional 2.4 GHz One Watt Amplifier

- Bi-Directional 900Mhz One Watt Amplifier

- Bipolar transistor RF mixer

- Bootstrapping a Phase Locked Loop for Better Performance

- Broadcast-Band RF Amplifier

- Bug detector / countersurveillance monitor

- Bug detector with beep using 7413 or 74LS13

- Build a COS Detector to detect the presence of a carrier on a receiver

- Build a good GaAs FET preamp for 2 meters, 222MHz or 440MHz

- Car radio tunes the amateur bands

- Cascode 7 Experimental Receiver

- Cascode Hybrid-Based WWV Receiver for 5 MHz

- CB (27MHz citizens band) 2.5W transmitter

- CB (27MHz citizens band) receiver

- Class B series modulator

- Class E Power Amplifier Design (136KHz operating frequency)

- Compact 20 - A 14 MHz Direct Conversion Receiver

- Convert 2m VHF FM PMR transceiver Motorola Radius M110 into an amateur radio

- Converter to Hear Amateurs on your FM Radio

- [Converter to yune six metres on your two metre receiver](#)

- [COR Carrier Delay timer / Hang Timer](#)

- [Crystal Radio](#)

- [Crystal radio circuits including diode performance comparison](#)

- [DC40 - 40M Direct Conversion receiver](#)

- [Deluxe Direct Conversion Reciever](#)

- [Digital display and VFO stabiliser using a PIC microcontroller and LCD](#)

- [Digitally tuned radio board to create an embedded FM radio controlled by a Mega128](#)

- [Direct conversion 7MHz receiver using NE602](#)

- [Direct Crystal radio receiver examples](#)

- [Dopler RDF (radio direction finder) circuit](#)

- [DSP-RDF Doppler Radio Direction Finder circuit schematic - complete kit available](#)

- [Electroluminescent Receiver Kit includes circuit diagram](#)

- [Electronic Eavesdropping Devices Detector](#)

- [Electronic Eavesdropping Devices Detector (bug detector)](#)

- [Experimental DSB/CW QRP rig for 20 and 40 meter bands (PDF)](#)

- [External antenna for the GPS-38, Magellan 2000, or Eagle Explorer GPS receivers](#)

- [FM radio active antenna](#)

- [Four channel RF remote control](#)

- [Four Channel Wireless Transmitter and Receiver using RF modules (PDF)](#)

- [FPGA Based ADS-B Receiver and Decoder](#)

- [Galvanic isolated CAT & audio interface for amateur radio](#)

- [GPS jammer](#)

- [HF 10 watt amplifier for 18MHz using a 2SC1969/2SC1944 transistor](#)

- HF/6M Antenna Tuner Preselector and Antenna Switcher

- HF/VHF mini portable antenna tuner

- HF/VHF portable antenna tuner

- High quality AM through your FM stereo

- High-Performance Direct-Conversion Receivers from ARRL (PDF)

- High-Performance, Single-Signal Direct-Conversion Receivers for ARRL (PDF)

- Homebrew 20m CW Transceiver

- Homebrew 30m CW Transceiver

- Homebrew 40m CW Transceiver

- Homebrew 6m DSB Transceiver

- Homebrew 6m SSB/CW Transceiver

- How to Build a 300MHz AM, RF Remote Control System

- ICOM CI-V interface with RS232 RTS to PTT

- Improved AM-Receiver for Aircraft communication

- Improved FM Stereo Modulator

- inexpensive high speed microwave data link using an Alpha Gunnplexer for 10 Mbps data rate

- Junk Box NDB Low Pass Filter

- K8IQY's Original 2N2/40 CW Transceiver Rig

- Kenwood TR-7950 manual & schematics (PDF)

- KL 400 RF linear amplifier

- LF to HF Converter

- Linear FM 50 watt amplifier with BLY90

- Linear FM 50Watt with BLY90

- Low Frequency Circulator/Isolator Uses No Ferrite or Magnet (PDF)

- Low Power RF ID Transponder (PDF)

- MC13136 based narrow band receiver

- Medium Frequency TRF Receiver

- metre receiver

- MF and HF Receive Antenna Splitter

- Montreal Doppler 3 DF (direction finder) unit

- Morse Code Beacon Keyer

- Multi band SSB transceiver construction project

- Multiplier Generates Odd Harmonics (PDF)

- MW Enhanced Crystal Receiver using 741 IC

- MW/SW Radio receiver

- Novel crystal set requires no antenna, earth

- One transistor FM receiver

- One Watt 2.45 GHz Linear Amplifier using RF Micro Devices RF2126

- One watt class-C RF amplifier (PDF)

- Op Amp Radio

- Op-amp based radio receiver

- Op-Amp Radio

- Passive grid (tube based) linear amplifier

- Phase Locking and Tuning

- Phase-Locking ULNs for Optimum Performance

- PLL synthesized FM radio that can decode DTMF

- Pocket sized 20m (30m) CW QRP transceiver

- Popcorn Direct Conversion Main Frame

- PSK Transceiver - Unique transceiver design does not use a SSB transmitter

- QRP - Circuits for measuring RF Voltage, RF Current, RF Power, SWR

- QRP Antenna Tuner

- R2T2 Haywire Home Station

- Radio Wave Alarm

- Receive Loop Preamplifier for LF reception

- Receiver based on NE602

- Receiver building blocks

- Regenerative receiver for the AM broadcast band using two transistors

- Regenerative Short Wave Radio

- Regenerative shortwave receiver

- RF Actuated Keying Monitor

- RF front-end for triple conversion GPS receiver (PDF)

- RF Isolator Uses Differential Amplifiers

- RF noise bridge for HF

- RF Power Amplifier Module using Toshiba S-AV10H

- RF Power meter / dummy load

- RF preamp circuit diagrams

- RF Sniffer under 0.5MHz to above 500MHz

- RX3302 receiver module schematic

- SA602, SA612 RF Mixer

- SCA Adapter - listen to advertisement free background music on FM broadcast radio

- SCA Subcarrier Demodulator for FM broadcast stations

- [Send Morse on your VHF Rig](#)

- [Sensitive LW/MW/SW Shortwave general coverage receiver](#)

- [Shortwave received circuit diagram](#)

- [Simple 40 meters CW QRP Transceiver (PDF)](#)

- [Simple ADS-B aircraft transponder decoder based on a PIC18F2550 microcontroller](#)

- [Simple CW identifier for a FM repeater (PDF)](#)

- [Simple Dual Band SSB Transceiver (20/40 meters)](#)

- [Simple home made ADS-B receiver that takes IF from a modified receiver](#)

- [Simple RIT circuit based on a 2N7000 FET](#)

- [Simple Time-Difference-Of-Arrival RDF](#)

- [Simple wireless radio data link](#)

- [Single transistor receiver for SSB, CW, AM using a VHF dual gate MOSFET](#)

- [Smooth Tone Clickless CW Sidetone Generator](#)

- [Some experiments with active or voltage probe antennas (VPA)](#)

- [SOP direct conversion receiver](#)

- [SOP receiver (PDF)](#)

- [SSB linear amplifier made from a bunch of 2N2218 transistors](#)

- [SSB Receiver / Exciter and Linear amp](#)

- [SSB transceiver for 80M](#)

- [Stacked Torroid VFO Experiments 2008](#)

- [Subcarrier adapter to listen to hidden subcarrier signals on FM radio](#)

- [Super 80 ultra-simple SSB receiver for 3.5 MHz a basic superhet](#)

- [Super improved AM-Receiver for Aircraft](#)

- [Super Scanner 45-860MHz with 0.01Hz stepsize](#)

- Superior TV-tuner receiver 45-860MHz in 2500Hz step

- Superregenerative 27MHz receiver

- SW30+ 30 Meter CW Transceiver

- Switching Diode Frequency Doublers (PDF)

- SWR bridge covering HF to VHF

- The MRX-40 Mini Receiver (PDF)

- T-Match ATU (antenna tuning unit)

- TR1001 868.35 MHz Hybrid transceiver schematic

- Transverter for Converting SSB CB to LF for Thru-the-Earth Voice Communications

- Two Diode Odd-Order Multiplier

- Two Transistor Reflex Radio

- TX Module Combiners (copied from commercial circuits)

- UHF Preamplifier covers 450MHz - 800MHz based on MPSH10 / BF180 / BCY90

- Universal USB digimode interface supports CAT (Yaesu), CI/V (Icom) and RS-232 (Kenwood) units (PDF)

- USB / CAT (CI-V) adapter tested with FT-8900, FTB-9800, VX-7R, VX-7, FT-817 and IC-706MkIIG

- USB 0-500MHz RF Power Meter based on a AD8307

- Variable Bandwidth CW Filter

- Variety of receiver converter projects

- Very Simple ADSB Receiver using a TV tunder to allow reception of aircraft transponders

- VFO from 2001 ARRL Handbook, page 14.20

- VFO from 2001 ARRL Handbook, page 17.74

- VHF 6 Meterband RF amplifier

- VHF receiver converterer

- VLF radio receiver schematic

- VLF Upconverter for Shortwave Receiver

- Wave Bubble - A design for a self-tuning portable RF jammer

- Wave Bubble self-tuning portable RF jammer

- Wee Willy 75 Meter DSB Transceiver Project

- Wideband SWR meter

- Wideband VHF/UHF/SHF 22dB RF preamp with MAR-6 or MAR-8 (MSA-0885)

- WLW 500KW Transmitter Schematic

- WWV receiver

- Yaesu band decoder schematic

- Yaesu FT-736R doppler compensation

Solar-power schematics

- 12 Volt 20 Amp Solar Charge Controller

- 1381 solar engine

- AA Battery Solar Charger

- AA battery solar charger

- Buck Mode Switching Regulator for Solar Applications

- Build a DIY solar iPod charger

- Converter that enables long cable wiring for pyranometer

- LED7 solar tracker

- Measure solar radiation on an Ubuntu Server

- Photovoltaic Solar Battery Regulator and Load Controller

- Portable solar battery charger

- Remote Solar LED light

- SCC2 10 Amp Solar Charge Controller

- SCC2 10 Amp Solar Charge Controller

- Self Powered Solar Box Furnace

- Sensor Electronic Tracker with H-Bridge Drive

- Sensor Electronic Tracker with Simple Solar Charge Controller

- Shunt-mode Solar/Wind Charge Controller

- Simple MPPT (maximum power point tracker) for photovoltaic arrays (PDF)

- Simple MPPT-Based (maximum power point tracker) Lead Acid Charger Using bq2031 (pdf)

- Solar cell battery charger circuit diagram

- Solar cell Nicad charger using Maxim MAX639

- Solar charge controller

- Solar charge controller based on a PIC microcontroller including schematic and source code

- Solar Charged LED Flashlight

- Solar energy meter

- Solar Panel Charge Controller / Low Voltage Disconnect Circuit

- Solar Panel Charge Controller / Low Voltage Disconnect Circuit

- Solar Panel Charge Controller / Low Voltage Disconnect Circuit (SPC1)

- Solar Panel Current Meter

- Solar Panel Current Meter

- Solar Powered Garden Light with PCB layout

- Solar Powered Night Light

- Solar Powered Reading Lamp

- Solar robots

- Solar station for insolation measurement with Ubuntu server 7.10 and a 24-bit Delta-sigma converter

- Solar switching regulator as published in Silicon Chip Magazine January 1994 Part 1/2 (PDF)

- Solar switching regulator as published in Silicon Chip Magazine January 1994 Part 2/2 (PDF)

- Solar Tracker

- Solar tracker

- Solar tracking control system

- SPC2 6 Amp Solar Power Center

- SPC2 6 Amp Solar Power Center

- SPC3 9 Amp in / 10 Amp out Solar Power Center

- Unconventional, scalable high efficiency 12V solar power system and battery charge controller

- Zener-based solar engine

Telephone and intercom related schematics

- 1-line telephone status indicator powered from a 3V battery (PDF)

- 4-line telephone status indicator that is polarity independent (PDF)

- 8-line intercom system using 89C51 microcontroller

- 900MHz cordless phone bug

- Assorted telephone circuits (ring generator, in-use indicator, audio interface)

- Audio Visual Indicator for Telephones

- Build your own radio controlled switch from a cordless telephone

- Caller ID decoder (requied Postscript file viewer and/or Ordcad schematic capture)

- Cellular Phone calling Detector

- Cellular Phone calling Detector

- Cellular Phone calling Detector

- Cellular Phone calling detector (detects RF field)

- Cellular Phone Jammer RF Amplifier circuit diagram

- Cellular Phone Jammer. Ver 2 circuit diagram

- Cordless phone backup power source using LM317L

- Cut Phone Line Detector

- Cut Phone Line Detector

- Cut Phone Line Detector

- Cut phone line detector

- Cut telephone line detector

- Detecting a telephone ring signal

- Digisound ring modulator

- Digital/Standard Phone Line Tester

- DSL / ADSL phone line filter

- FM Telephone Bug

- FM Telephone Bug

- FM Telephone Bug

- FM telephone line bug transmitter (88MHz to 94MHz)

- GBPPR Cellular Phone Jammer Exciter schematic diagram

- Greek telecard reader

- GSM-900 Mobile Jammer Book (PDF compressed with WinRAR)

- High Power 800 MHz/AMPS Cellular Phone Jammer

- High Quality Intercom using LM380 amplifier IC

- Hold function for Telephone

- Home made PBX / PABX

- Homebrew P2JBZ-style cellular / mobile phone jammer circuit

- Incoming call indicator (ZIP file)

- Isolated Telephone Interface

- Isolated Telephone Interface (phone tap) for tape recorder, PC sound card etc

- Line in use indicator that handles two independent phone lines (PDF)

- Low cost intercom using transistors

- Off line Telephone tester

- PCS Cellular Phone Jammer circuit schematic

- PCS Phone Jammer circuit diagram

- Phone "Hold" With Music

- Phone Broadcaster / telehone bugging device circuit diagram

- Phone Busy Indicator

- Phone Busy Indicator

- Phone Busy Indicator

- Phone call interceptor to stop unsolicited phone calls

- Phone In Use Indicator circuit diagram

- Phone in-use (manually activated)

- Phone In-Use Light

- Phone line in use indicator

- Phone line indicator

- [Phone line to audio interface](#)

- [Phone Off-Hook Indicator using CD4049 hex inverter](#)

- ['phone rang' indicator light](#)

- [Phone to audio interface for SSI202 input](#)

- [Phone-In-Use indicator](#)

- [Portable AMPS Cellular Phone Jammer](#)

- [Portable AMPS Cellular Phone Jammer - Dual Purpose](#)

- [Portable GSM900 Cellular Phone Jammer](#)

- [Portable PCS Cellular Phone Jammer circuit schematic](#)

- [Remote Telephone Bell Ringer](#)

- [Ringing Phone Light Flasher](#)

- [Ringing Phone Light Flasher](#)

- [Ringing Phone Light Flasher using optocoupler and relay](#)

- [Self-powered phone messenger based on a PIC16C819 microcontroller](#)

- [Simple alarm with telephone dialler interface](#)

- [Simple circuit to connect telephone equipment to audio mixer](#)

- [Simple intercom](#)

- [Simple Phone Tap](#)

- [Simple Phone Tap Circuit](#)

- [Simple Phone Tap circuit diagram](#)

- [Simple Skype VoIP analog adapter](#)

- [Simple speakerphone](#)

- [Simple telephone line tap for intercepting telephone calls](#)

- [Single-Wire-Telephones for caves and mines](#)

- [Smart Phone light](#)

- [Soft musical telephone ringer](#)

- [Soft Musical Telephone Ringer](#)

- [Talking phone dial monitor (PDF)](#)

- [Taxi phone automatic dialler](#)

- [Telephone amplifier](#)

- [Telephone amplifier](#)

- [Telephone auto-dialler (useful for an alarm dialler)](#)

- [Telephone call screener with voice](#)

- [Telephone Hold Button](#)

- [Telephone Hold Button](#)

- [Telephone Hold Button circuit](#)

- [Telephone in use light](#)

- [Telephone Line Filter / Protector](#)

- [Telephone Line Monitor](#)

- [Telephone line monitor](#)

- [Telephone line monitor](#)

- [Telephone line simulator](#)

- [Telephone line simulator ideal for testing phone interface projects](#)

- [Telephone music on hold interface](#)

- [Telephone privacy adapter](#)

- [Telephone Record Control using 2N4360, 2N2222 and 2N2102](#)

- [Telephone Recorder](#)

- [Telephone Recorder](#)

- Telephone recorder to record phone conversations automatically

- Telephone ringing circuits

- The 89C51 PABX

- The Link 4+0 - Internal Intercom (Doesn't offer external line access)

- The Link A2B+1 (the Link Telephone Intercom - DTMF version)

- The Original 2 Phone Intercom Link Design

- Universal telephone hold

- Use old telephones as an intercom

- Wireless Telephone Bug

- **Test equipment circuit diagrams**

- 10Hz - 100KHz D.D.S. Function Generator

- 2.5 GHz Frequency counter

- -20 dB Couplers for use with a with a spectrum analyzer or other sensitive detector

- -20 dBm, 14.060 MHz Precision Signal Source

- 20kV Digital High Voltage Meter

- 220V live wire-in-wall scanner

- 250MHz RF Generator with 1kHz display resolution

- 3 in one tester (audio, tone generator, diode/circuit tester)

- 555 go / no-go tester

- 555 Timer IC Tester

- 5Hz to 500KHz frequency meter

- Accurate Digital LC Meter based on a PIC16F84

- AD9850 DDS daughterboard

- Alarm circuit to remind you to turn off your DMM (digital multimeter)

- Amplified field strength meter / RF sniffer

- Audible Logic Probe based on LM339 operational amplifier

- Audio Millivoltmeter

- Audio Millivoltmeter

- Audio Test Oscillator

- Automatic heat limiter for soldering iron

- Battery Tester for 1.5 and 9V

- BCD readout frequency counter

- Beeper to find short circuits

- Beeper to find short circuits (continuity tester)

- Build an inexpensive Hall effect Gaussmeter

- Capacitance meter

- Capacitance meter - precision meter for small capacitors

- Connection tester for checking solder joints and other connections

- Conrad Electronics MM3610D multimeter cable pinout

- Contactless Mains Voltage Indicator

- Contactless Mains Voltage Indicator

- Continuity tester

- Continuity tester 2

- Continuity Tester based on 4 x 2N3904 and 1 x 2N3905 transistors

- Continuity tester using transistors

- Crystal tester

- Crystal tester that covers a range of 32kHz to 24MHz

- DCC Ammeter using ZXCT1009 current monitor

- DDS from 1-60 MHz with built-in amplifier and variable output level using Analog Devices AD9851

- Design for a slightly more expensive Gaussmeter

- Digital SWR / Power Meter

- Digital voltmeter (DVM)

- Digital Voltmeter using ICL7107

- Digital Wattmeter, measures from nanowatts to kilowatts using AD8307, PIC16F876, LCD Display

- Dip Oscillator for HF

- Distortion Analyser

- Distortion Analyser

- Elecraft XG2 receiver test oscillator (PDF)

- Electric field & leakage detector

- Electronic Circuit for Crystal Parameter Measurement

- EMF field probe (electromagnetic field probe) covering up to 100kHz

- ESR Meter

- Exclusive 2.5 GHz Frequency Counter with Blue 2x16 LCD display

- Field Strength Meter (FSM) covers 2Mhz - 1Ghz with peak reception at 3-200Mhz

- Field strength meter for the 137 kHz band

- Fixed Frequency "Tuner Dipper"

- Fluke 8010 / 8012 Interface

- Frequency and capacitance meter

- Frequency Counter / Timer / Logic Tester

- Frequency counter based on PIC16F628 and LCD display

- Frequency counter measures to 2.5 GHz and offers LCD display

- Full Featured Transistor Tester

- Function generator based on 555 timer and three 2N2222 transistors

- Function generator based on 8038PCD function generator IC

- Function generator based upon 8038 waveform generator IC

- Ground Fault Indicator

- Heathkit signal generator user manual and circuit diagram

- High Impedance Voltmeter

- High Resistance Voltmeter

- Highly sensitive and selective Field Strength Meter system

- Homebrew signal generator tunable from 3 to 30 Mhz

- Improved DCC Ammeter (2009) using Zetex ZXCT1009 current monitor

- In-circuit electrolytic capacitor checker

- In-circuit electrolytic capacitor tester

- Inductive meter adapter to measure inductance using a frequency counter

- IR Remote Control Tester

- Isolated oscilloscope probe

- Latching Continuity Tester to help find intermittent faults, has quite a few innovative features

- Latching continuity tester using 4093

- LC meter with LCD display for readout

- LCD Frequency Counter

- LCD frequency counter (PIC16F84)

- LED based transistor tester LED based transistor tester

- Led display digital Voltmeter using ICL7107

- Line Output / Flyback transformer tester

- Linear Resistance Meter

- Linear Resistance Meter

- Linear scale analog watt meter / RF power meter

- Linkwitz Cosine Burst Generator

- Live line detector

- Logic probe

- Logic probe

- Logic probe based on CMOS 4001 chip

- Logic probe with 7-segment display based on 74LS00 and 74LS47

- Logic probe with pulser

- Low Power Antenna Analyzer and ATU Tuning Aid

- Low-Cost Phase Noise Measurement

- Microphone Circuit Test Oscillator

- Microphone Circuit Test Oscillator

- Microphone polarity tester circuit diagran

- Mini DDS (direct digital synthesizer) using an Analog Devices AD9832 (12MHz maximum frequency)

- Mini oscilloscope based on PIC18F4620 and standard 16x2 text LCD display module

- Mini tester: Handles continuity testing, resistor testing, capacitor testing and diode testing

- Miniscope - simple all-valve 1-inch CRT oscilloscope

- MOSFET tester for N-type MOSFET transistors

- MOSFET transistor tester

- Multi wire cable tester that handles up to eight conductors

- Multi-trace scope display that allows up to 4 channels to be viewed on a single oscilloscope channel

- Not So Tiny Power Meter - Measures power consumption for entire apartment Not So Tiny Power Meter

- Opamp Design and Test Board

- Optical ballistic chronograph for measuring projectile velocity

- Oscillopscope triggering circuit for recording long transients at fast sweep speeds (PDF)

- Oscilloscope / Logic Analyzer based on an Arduino

- Oscilloscope testing module (huntron circuit)

- Oscilloscope testing module (Huntron circuit) that shows Lissajous patterns

- Panel Mounting Radio Frequency Counter

- PCB board tester and RF detector circuir diagrams

- Philips SB-6668 frequency counter upgrade

- PIC based frequency counter

- PIC logic probe with pulser

- PIC16F84 based diode tester

- Picoammeter circuit schematic with 4 ranges using CA3420

- Pink Noise Generator for Audio Testing

- Poor man's frequency counter

- PPMScope DIY oscilloscope with 1MHz sampling rate (500KHz bandwidth)

- PPMScope DIY oscilloscope with 1MHz sampling rate and Windows software

- Precision audio millivoltmeter

- Precision Frequency Marker

- Precision VXO for Crystal Characterization & Matching

- [Pulse Reading Logic Probe](#)

- [Pulse Reading Logic Probe](#)

- [Quickie servo tester for testing servo motors (based on Atmel AT90S2343)](#)

- [RCM710 electronic scale, technical manual including schematic](#)

- [Resistor decade box](#)

- [Return Loss Bridge](#)

- [RF field strength meter](#)

- [RF Power Meter for the QRP measures up to 25 watts](#)

- [RF probe circuit diagram and Autotrax PCB layout](#)

- [Schematics and C code for a 0-5V PIC LCD volt meter](#)

- [Schematics and C code for a PIC frequency counter operating up to about 50 MHz (7 segment)](#)

- [Schematics and C code for a PIC frequency counter operating up to about 50 MHz (LCD)](#)

- [Self Oscillating Amplifier for Distortion Testing](#)

- [Self-powered Fast Battery-Tester - Tests 1.5 to 15 Volt cells](#)

- [Sensor to display, built with thermistor, 12-bit ADC, 89S52 and LED display](#)

- [Service monitor / deviation meter circuit](#)

- [Servo Motor Test Circuit (LM555)](#)

- [Signal Tracer and Injector](#)

- [Simple diagnostic tool for use on repeaters in the field](#)

- [Simple electronic S meter](#)

- [Simple Frequency Counter](#)

- [Simple Ground Loss bridge for Ground Loss Measurement at LF](#)

- [Simple Inductance Meter](#)

- Simple light sensor adapter for oscilloscope

- Simple Ph Meter

- Simple pH Meter Circuit, A Low Cost Adapter for Your Digital Voltmeter

- Simple polarity detector

- Simple Polarity Tester

- Simple test equipment to build

- Simplified Measurement of Output Impedance for Audio Circuits

- Single chip digital voltmeter using ICL7129

- Soft Power On Tester for Amplifiers

- Sound pressure level meter

- Spectrum analyzer Mk 1

- Spectrum analyzer Mk 2

- Standalone LED tester

- Stereo Test Tone Generator

- Stereo Test Tone Generator

- Superprobe handheld test device based on a PIC16F870

- SWR Bridge 1 to 1000 Mhz (1GHz)

- TDR cable reflection tester (Time Domain Reflectometer)

- TDS/PPM Meter for measuring of the amount of salts in a solution

- Test oscillator that generates sinewaves, squarewaves, and triangle waves

- The ESP SIM (Sound Impairment Monitor)

- The u-counter, a PIC based programmable frequency meter (PDF)

- Thermistor Thermometer: LCD version

- Time Domain Reflectometer (TDR)

- TinyScope - simple all-valve 1-inch CRT oscilloscope

- Transistor Tester

- Transistor tester using 555 timer and 4027

- Triple Stroboscope

- True RMS Watt Meter

- TTL pulse counter/logic probe

- TTL Pulse Reading Logic Probe

- TXTVb - 70cm ATV Test Generator (PDF)

- UHF signal generator

- Ultra-simple Voltage Probe

- Ultra-simple voltage probe

- Universal frequency counter & voltage meter

- UTP Cable Tester

- VCR head amplifier tester

- VCR Tuner Based RF Spectrum Analyzer Schematic

- VHF signal generator

- Wide dynamic range Field Strength Meter mark I

- Wide dynamic range Field Strength Meter mark II

- Wire tracer

- Wire Tracer (Receiver)

- Wire Tracer (Transmitter)

- Wireless Frequency counter

- XTal Tester for testing quartz crystals based on a pair of BC550C PNP transistors

- Z80 controlled Viscometer project

- Zener diode tester based on a 555 timer

- **<u>Timing and oscillator circuits</u>**

- <u>10MHz GPS disciplined frequency standard</u>

- <u>24" Wall Clock</u>

- <u>28 LED clock timer</u>

- <u>3 - 12 MHz Signal Generator</u>

- <u>455KHz oscillator using FET and 455KHz IF transformer</u>

- <u>5 to 30 Minute Timer</u>

- <u>555 Timer Tutorial + Circuits</u>

- <u>A GPS receiver based frequency standard</u>

- <u>AD9852 DDS schematic</u>

- <u>AF variable frequency generator using 555 IC</u>

- <u>Alarm clock based on Atmel AT89C2051 and Dallas DS1307 RTC chip</u>

- <u>Astable 40KHz clock</u>

- <u>Astable Multivibrator</u>

- <u>Astable Multivibrator Projects / Circuit diagrams</u>

- <u>Audible timer that can be used as a cooking timer for roasting peanuts for example</u>

- <u>Bedside lamp timer</u>

- <u>Binary clock</u>

- <u>Binary clock using LED matrix to display a binary clock with 6 digits of 4 binary bits each</u>

- <u>Build A 100Khz Crystal Calibrator</u>

- <u>Build a synchronous clock locked to the mains frequency</u>

- <u>CA4060B Timer Circuits</u>

- Cheap 40KHz clock using one gate of a 74C14

- Clock divider

- Clock doubler

- Clock generator

- CMOS oscillator using 74C14 inverting Schmitt trigger

- Collection of timer circuit diagrams to generate very long delays

- Constant Reactance Voltage Controlled Oscillator (PDF)

- Continuous Coverage V.F.O. for H.F. (PDF)

- Countdown timer with relay

- Crystal 32.768KHz CMOS Oscillator

- Crystal heater / temperature stablization circuit (TXCO)

- Crystal oscillator using a CMOS or HCMOS inverter

- Crystal switcher using diodes

- D Flip-flot one-shot circuits (PDF)

- D.I.Y. Clock Oscillator based on 555 timer

- DCF-77 PIC LED clock (DCF77 is the name of a German radio station on 77.5 KHz)

- DCF77 PIC16F84A Single-Nixie clock (DCF77 is the name of a German radio station on 77.5 KHz)

- DDS oscillator based on an Analog Devices AD9859 and an Atmel ATmega16 microco (Microsoft Word)

- DDS using AD9835

- DDS/PLL based VFO synthesizer

- Decimal DDS Signal Generator

- Digital clock based on 74 series logic

- Digital clock that receives and displays the time from the Rugby MSF radio transmission (PIC16F877)

- Digital Clock with Alarm Using DS1307

- Digital Stopwatch 0-60sec

- Digital Stopwatch 0-99sec

- Digital timer with 7-segment display and pushbuttons

- Direct Digital Synthesis VFO for HF Bands - based on Analog Devices AD7009 DDS (PDF)

- Divide by 1.5 counter (PFD)

- Egg timer

- Equivalent circuit and SPICE model of 555 timer

- Experimental Base Bias Tuned VFO

- Experimental DDS frequency synthesizer uses the AD9851

- Extended counter using CD4017

- Frequency Tripler using the CA3028 (PDF)

- Function Generator Sine / Triangle / Square / Saw / Burst Sweep Noise based on PIC16F870

- Giant nixie clock

- GPS-based universal clock generator

- HCMOS Gates Make Frequency multipliers (PDF)

- High Precision GPS/TV controlled Reference Oscillator

- High-output square wave generator (PDF)

- Homemade scope clock using a DG7 tube and a Microchip PIC16F876

- IC oscillator 1...30MHz using 74LS04 chip

- Ice Tube Clock - Vacuum fluorescent display (VFD) clock

- LED matrix clock

- Line powered 60Hz clock generator (PDF)

- Long duration timer using 4060 12-stage binary ripple counter

- Low Distortion Crystal Oscillator (PDF)

- Micropower pulse generator (PDF)

- Micro-power pulse generator (PDF)

- Mixer VXO circuit diagram

- Monostable multivibrator

- NE555 Basic Monostable

- Op Amp Triangle-Wave Generator circuit diagram and SPICE simulation files

- Oscilloscope CRT Clock

- Panel-mounting clock

- PCB exposure countdown timer based on an Atmel ATtiny2313

- Photo timer circuit using NE555

- PTT Delay Circuit

- Push Button Switch Debouncer

- 'Rounding Off' a square wave

- Selection of 14 oscillator circuits include sinewave, audio, logic and LED flashers

- Sidereal clock project with circuit diagrams

- Signal Frequency Beat Frequency Oscillator

- Simple AF-oscillator / signal generator using pair on 2N2222 transistors

- Simple Divide-By-N using 161 series chip (PDF)

- Simple Function Generator using TL084 or other opamp

- Simple GPS Stabilised 10 MHz Oscillator

- Simple Sine Wave Oscillator including a PCB layout

- Single-digit Nixie clock

- Sleep Timer

- Special Function Timer Circuits (LM555)

- Square wave oscillator using CMOS 4011 NAND chip

- Square wave to sine wave converter

- Sun tanning timer

- Super VXO

- Switch debounce using 555

- Time Delay Relay using 4011 CMOS NAND gate

- Time Delay Relay using 555 timer

- Timer circuit based on a 14536 and 4011 CMOS chips that can be calibrated using a frequency counter

- Tiny Crystal Oscillator using LP2980 (PDF)

- Triangle / Square wave generator

- Triangle / Squarewave Generator using a 1458 dual opamp

- Tuning VFOs With A PN-Junction

- TV based Receiver for a Standard Frequency Generator

- Two nixie display clock

- Unusual frequency dividers (PDF)

- VCO - Voltage Controlled Oscillator covers around 70-210 MHz

- VCO covers 300MHz to 500MHz based on Maxim MAX2608 VCO

- VFD (vacuum flourescent display) clock

- Weston Voltmeter Clock

- Wide-swing Variable Crystal Oscillator

- Wien Bridge Oscillator with SPICE simulation

Transmitter schematics (also see RF)

- 1 Watt AM transmitter for the 10 meter band (28MHz)

- 1.5 volt FM transmitter

- 1.5 volt tracking transmitter

- 1.5V tracking transmitter

- 10W 2M CW transmitter

- 12-meterband QRP AM oscillator transmitter using a 2N2219 transistor

- 1300MHz - 1500MHz transmitter with 20 - 50mW output power

- 144.000 Mhz CW Transmitter

- 15 watt FM transmitter

- 15 watt FM transmitter

- 175KHz inductive pulse transmitter (PDF)

- 2 Transistor FM Voice Transmitter

- 3 Watt FM Transmitter

- 30-Meter QRP Transmitter for Morse Code

- 3-3.5 Watt FM Transmitter

- 4 Transistor Tracking Transmitter

- 4 Watt FM Transmitter

- 4 watt FM transmitter

- 4 watt FM transmitter

- 40 Meter, 5 Watt QRP Transmitter

- 433MHz super remote control using a PIC12F683 to boost range

- 433MHz transmitter using SAW resonator

- 4-transistor transmitter

- 50 MHz crystal controlled audio bugging device

- 500kHz Transmitter design

- 500mW AM transmitter for the 20 meter band (14MHz)

- 500mW FM PLL transmitter 88-108MHz

- 5W Chinese PLL FM Transmitter With LCD Printed Circuit Board (PCB)

- 7MHz QRP transmitter

- 80 Metre CW beacon / transmitter circuit diagram

- 80 Metre DSB Transmitter

- 80m ceramic resonator VXO CW transmitter

- 88-108Mhz FM Radio Transmitter with 3 transistor stages

- A 3m (100 MHz) small bug (ZIP file)

- AM FM Simultaneous Transmitter Using Digital IC (CD4001)

- AM transmitter

- AM Transmitter

- AM Transmitter

- AM transmitter using no power supply

- AM/FM Simultaneous Transmitter Using Digital IC

- BC547 80M SSB QRP Transceiver

- Coilless FM transmitter using CD4069 CMOS hex interverter chip

- Cordless telephone bug

- Crystal controlled transmitter (46.515MHz, 1 transistor FM)

- Crystal controlled transmitter (46.515MHz, 3 transistor FM)

- Digitally controlled FM transmitter with 2 line LCD display

- Europa30, a 10MHz QRP TX

- FM audio bug using BC817 and BRF92

- FM Beacon Broadcast Transmitter (88-108 MHz)

- FM Microphone micro-transmitter that is small and sensitive

- FM Microphone transmitter / FM buf circuit diagram

- FM telephone transmitter

- FM transmitter

- FM transmitter based on Colpitts oscillator design

- FM transmitter bug

- FM transmitter for bird listening

- FM Transmitter using two transistors

- FM Transmitter with range of about 300 feet

- FM Voice Transmitter

- FOX BOX - Transmitter controller

- Ipod Stereo FM transmitter with 1W output power

- KMDTA Wireless Motion Detector Transmitter Kit

- Light sensing RF transmitter

- Long range FM transmitter using 2N3866 for output stage

- Low Power FM Transmitter

- Low Power FM Transmitter

- Low Power PLL FM Transmitter based on LMX1601 and Atmel ATtiny2313 or AT90S2313 microcontroller

- Medium range transmitter circuit

- Medium range transmitter using pair of 2N3904 transistors

- Micro Power FM Broadcasting Circuits

- Micro-Spy with FETs

- Micro-Spy with TTL

- Micro-Spy with USW

- Miniature FM Transmitter

- Miniature FM transmitter

- Miniature FM Transmitter #1

- Miniature FM Transmitter #2

- Miniature FM Transmitter #3

- Miniature tracking transmitter

- MW Transmitter can be used as an inter-room radio telephone

- One transistor FM transmitter / FM bugging device

- One Valve CW transmitter

- PLL based bug transmitter

- Pocket APRS (GPS Position) transmitter

- Pocket Transmitter that can cover 20 to 25 meters with a telescopic antenna

- Powerful AM transmitter

- QRP transmitter circuit diagrams

- Remote RF transmitter based on PIC12F675 or PIC12F629

- RF/SS Handie Hopper Transmitter Schematic

- Sensitive FM Transmitter

- Sensitive FM transmitter

- simple 430MHz band FM transmitter uses only 2 FETtransistors

- Simple CW transmitter for 80M

- Simple RF transmitter

- Single transistor FM transmitter

- Small FM Transmitter

- Small FM transmitter using SMD components

- Small radio transmitter

- Small Radio Transmitter

- THE FOX - 250mw transmitter with timer

- THE FOX - 40 milliwatt transmitter

- THE FOX 750 - 750 milliwatt transmitter

- Tiny FM transmitter using SMD (surface mount devices)

- Tracking transmitter

- Tube Transmitter with 5763 power amplifier

- Two transistor FM transmitter / FM bug

- Two transistor FM transmitter circuit diagram and PCB layout

- Two Valve 40m CW Transmitter

- Wireless FM Transmitter

- Wireless microphone

- Wireless microphone using 741 opamp and 2N3904

- Wireless transmitter for PIR using Holtek HT12E

- ## Video related circuit schematics

- 23cm FM ATV Platinum Receiver (PDF)

- 8 x 8 Audio-video switch

- An automated, self-recording surveillance camera using an SD memory card for recording digital video

- Apple IIe RGB to CGA

- AVR (AT90S2313) composite PAL colour bar generator

- Camera switching circuit to run multiple cameras with one monitor

- Circuits to transmit and demoludate RF / video signals over fibre optic cable

- Closed-Caption Decoder

- Commodore 64 Video Modulator 251025 Schematics

- Commodore 64 Video Modulator 251696 Schematics

- Commodore RF modulator

- Decoder for encoded transmissions in Videocrypt and D2MAC

- Generate composite color video signals in software using an SX microcontroller

- Generate video signals in software using PIC

- Homebuilt video digitizer Mark I

- Homebuilt video digitizer Mark II

- LH0032 video amplifier

- LM359N video amplifier

- Low cost video motion detection using a PIC16F819 and an LM339

- Macrovision removal

- Micro TV transmistter

- Motorized Video Camera Mount

- Motorized Video Camera Mount

- PIC micro frame grabber (TDA8708)

- PIC PAL Video Library including source code and circuit schematics

- Pico OSD, a PIC video superimposer

- PIC-Tock video clock

- RGB pattern generator based on an Atmel ATtiny2313 running at 20MHz

- Run video and camera power up to 2000 feet over ordinary four conductor telephone wire (PDF)

- Simple AV (audio / video) wireless transmitter

- Small TV transmitter for CCTV observation

- S-video to composite video adapter

- S-Video to RCA adapter

- Television signal amplifier

- TV RGB signal output from a SVGA graphics card

- TV Signal Amplifier covers frequencies from 40MHz to 900 MHz

- TV Transmitter - VHF band TV transmitter using negative sound modulation and PAL video modulation

- TV video transmitter using LM1889

- TV/Radio antenna cable galvanic isolator

- VGA converter for video projectors and fixed frequency monitors

- VGA to BNC Adapter (Converter)

- VGA to PAL and NTSC converter

- VGA to RGB + composite sync -converter

- VGA to SCART adapter

- VGA to TV converter

- VHF/UHF TV modulator

- Video Activated Relay

- Video amplifier

- Video Clock Superimposer

- Video clock superimposer using PIC16C711

- Video DVM - Display voltage on a TV - based on Atmel AT90S1200 and generates vid signal in software

- Video line receiver using AD818

- Video Signal Amplifier

- Video signal amplifier circuit

- Video signal edge enhancement

- Video Stabilizer/MacroVision Removal

- Video switcher - run up to four cameras into one video monitor (PDF)

- Video switcher to allow monitoring of multiple video cameras using a single monitor

- Video/Audio Wireless Transmitter

- YBox2 - DIY networked set-top box that connects to a TV to deliver Internet content

Tarequl Islam
01670656335
882737@gmail.com