

# Electronics & Electrical Projects List Offered By

Technogroovy Systems India Pvt Ltd

[www.technogroovy.com](http://www.technogroovy.com)

1. PC TO PC COMMUNICATION USING IR/FIBER OPTIC CABLE
2. PWM CONTROL OF DC MOTOR USING C++
3. COMPUTERISED ELECTRICAL APPLIANCE CONTROL
4. DATA ACQUISITION CARD FOR P.C.
5. SIMPLE ANALOGUE INTERFACE FOR P.C.
6. P.C. BASED FUNCTION GENERATOR
7. PC BASED SUN SEEKER
8. COMMUNICATION BETWEEN PC'S USING IR, LASER
9. SIMPLE RELAY AND SENSOR INTERFACE FOR P.C.
10. P.C. BASED DIGITAL CLOCK
11. INTERFACE YOUR PC WITH LIGHT AND FANS
12. P.C. BASED VISITOR COUNTER
13. P.C. BASED TOKEN NUMBER DISPLAYER
14. PC BASE TRANSISTOR LEAD IDENTIFIER
15. PC BASED STEPPER MOTOR CONTROLLER
16. PC BASED DC MOTOR SPEED CONTROLLER
17. P.C. BASED 7-SEGMENT ROLLING DISPLAY
18. PC. BASED DC MOTOR SPEED CONTROLLED
19. PC BASED ROBOTIC ARM
20. P.C. BASED TIMER
21. P.C. BASED MULTILEVEL CAR PARKING

90 555 Timer As Amplifier

91 90 Second Timer

92 Automatic Dialing to Any Telephone Using I2C Protocol on Detecting Burglary

- 93 Automatic Dusk to Dawn (Evening on to Morning Off)
- 94 Automatic Elevator Light and Fan Controller
- 95 Automatic Exhaust Fan Control Coupled To Gas Leak Detection
- 96 Automatic Fan Speed Regulator
- 97 Automatic Heat Detector
- 98 Automatic irrigation System on Sensing Soil Moisture Content
- 99 Automatic Light Beam Shifting Of Vehicles On High Ways
- 100 Automatic Light Lamp with Morning Alarm
- 101 Automatic light/dark indicator
- 102 Automatic Power OFF timer for CD player
- 103 Automatic Road Level Detection And Alerting System for Cars
- 104 Automatic solar street light controller
- 105 Automatic Solar Tracker
- 106 Automatic Speed Regulation Depending On Incoming Vehicle On High Ways (Fuel Injection)
- 107 Automatic Star Delta Starter Using Relays and Adjustable Electronic Timer for Induction Motor
- 108 Automatic Surveillance Camera Panning System from PC
- 109 Automatic Threshold Detection System for Phase Preserving Image Denoising
- 110 Automatic Vehicle Image Capturing When Overriding traffic lights
- 111 Automatic Wash Basin Tap Controller
- 112 Automatic Wireless Health Monitoring System in Hospitals for Patients
- 113 AVR based Heart Rate Monitoring System With Health level Indicator
- 114 Background Interpolation for Selective Image Cancellation
- 115 Bathroom Light Off Timer
- 116 Battery Level Indicator
- 117 Beacon Flasher Using Microcontroller
- 118 Electronic Number Game
- 119 Electronic Soft Start for 3 Phase Induction Motor
- 120 Electronic Thermometer for Beverage Temperature Measurement
- 121 Wireless Remote to Control 255 Different Appliances Individually
- 122 Working of light dependent resistor
- 123 CD 4060IC based Message Display Circuit
- 124 CD 4060 Based Security Alarm
- 125 CD 4027 Based Emergency Lighting System
- 126 CD 4013 Based Two Way Switch
- 127 CD 4013 based Sound Sensing Module
- 128 Car Reverse Horn

- 129 Camouflaged Voice Recording and Transmitting System
- 130 Burglar alarm based Home Security System
- 131 Bluetooth Controlled Robot
- 132 BLDC Motor Speed Control with RPM Display
- 133 bidirectional Rotation of an Induction Motor with a Remote Control Device
- 134 A Multiple Bots Operated with a Single Base Station
- 135 A Swarm of Mutually Interacting Metal Detecting Robots For Scanning the Area
- 136 Active high trigger for 555 in monostable mode
- 137 Detecting Power Grid Synchronization Failure on Sensing Frequency or Voltage Beyond Acceptable Range
- 138 Differential amplifier
- 139 DNA Based Mathematical Calculator
- 140 DTMF Based Car Lock System
- 141 AES128 Encrypted hardware Lock Using AVR ATMEGA-16
- 142 DTMF Based Load Control System
- 143 Electronic Dog to Sense The Proximity of a Specific Purpose
- 144 Electronic Eye Controlled Security System
- 145 Electronic Nose to Indicate gas Leakage in Underground Mines and Industries
- 146 AES256 bit Highly Encrypted Image Steganography
- 147 Electronic Notepad
- 148 Electronic Timer Circuit
- 149 Fabrics That Generate Energy using Dye Based Solar Cells
- 150 Facebook Connected Arduino And Intelligent Event Reporting
- 151 FACTs (flexible ac transmission) by TSR
- 152 FACTs by SVC (flexible ac transmission)
- 153 Fastest Finger Press Quiz Buzzer
- 154 Amplifier for Musical ICs
- 155 Finger Print Based Security System
- 156 Fire Fighting Robotic Vehicle
- 157 Fire Powered Mini Portable Power Supply
- 158 Fixed voltage power supply
- 159 Flash Flood Intimation Over GSM Network
- 160 Flash Memory with Self Destroy Master Lock
- 161 Flip Flop based Staircase Switch
- 162 Four Quadrant DC Motor Control without Microcontroller
- 163 Four Quadrant DC Motor Speed Control with Microcontroller
- 164 Frequency Counter Using Smartphone
- 165 Full range centigrade temperature sensor

166 Generating time delay with 555 IC  
167 Gesture Operated Wheel Chair  
168 GPS enabled Quadcopter  
169 GSM Based Energy Meter Reading with Load Control  
170 GSM Based Monthly Energy Meter Billing via SMS  
171 Hardware Authentication Dongle with Fingerprint Recognition  
172 Hardware Level Bit tracing and Data Interpolating Forensic System  
173 H-bridge using transistor  
174 Hidden Active Cell Phone Detector  
175 Android Based Waveform Analyser  
176 High Voltage DC by Marx Generator Principles  
177 High Voltage DC Upto 2kv from AC by Using Diode and Capacitors in Voltage Multiplier Circuit  
178 Hit the Target Game  
179 Home Automation Using Digital Control  
180 Humidity Detector Circuit  
181 IC 555 Based Message Display Circuit  
182 IC555 based Multicolor LED Lamp Circuit Diagram  
183 Image Watermarking Using Python  
184 Incoming Phone Ring Light Flasher  
185 Android Based Waveform Generator  
186 Induction Motor Protection System  
187 Industrial Battery Charger by Thyristor Firing Angle Control  
188 Industrial Power Control by Integral Cycle Switching without Generating Harmonics  
189 Industrial Temperature Controller  
190 Infrared (IR) sensor  
191 Integrated Energy Management System Based on GSM Protocol with Acknowledge  
192 Intelligent Bot Network for Area Monitoring and reporting  
193 Interfacing 4026 with 7 segment display  
194 Inverting amplifier using 741  
195 Android Controlled Wheel Chair for the Physically Handicapped  
196 Inverting amplifier with signal feedback  
197 Invisible Image Watermarking in Python  
198 IR Controlled Robotic Vehicle  
199 IR Obstacle Detection to Actuate Load  
200 Lamp Life Extender by ZVS (Zero Voltage Switching)  
201 LDR Based Automatic Lamp  
202 LED Based Pendulum Circuit

203 LED Lamp Using CA3140 IC  
204 Life Cycle Testing of Electrical Loads by Down Counter  
205 Anti Theft Alarm for Bikes  
206 Light dependent frequency variation using LDR  
207 Light detector  
208 Light sensor using photodiode  
209 Lighting Controller Counts How Many People are in a Room  
210 Line Following Robotic Vehicle  
211 Line Following Robotic Vehicle Using Microcontroller  
212 Liquid level Alarm  
213 Location Broadcaster Using Arduino Ethernet Interface  
214 Location Mapping and Routing System for the Blind With GPS Support  
215 Location Mapping Ariel Vehicle  
216 Arduino Based Earthquake Detection Social Network Broadcast system  
217 Long Range FM Transmitter with Audio Modulation  
218 Long range IR  
219 Low Cost Touch Screen For Instant Drawing And Presentations  
220 Low pass filter  
221 Magic Eye Circuit Using 4049 IC  
222 Magic Eye using 555 Timer IC  
223 MATLAB based Landscape Surveillance System  
224 Metal Detector Robotic Vehicle  
225 Microscope Using A Smartphone  
226 Military Grade Video based Steganography  
227 3D Notice Board using LED Cube  
228 Arduino Based Online Database Interfacing  
229 Miniature Disguised Location Transmitter for Military Spying  
230 Miniature Photonic Rat Bot  
231 Minimizing Penalty in Industrial Power Consumption by Engaging APFC Unit  
232 Mobile Phone Sniffer With Over 10 Meter Range Using An Ultrasonic Device as Antenna  
233 Motion Detector  
234 Movement Sensed Automatic Door Opening System  
235 Multi Color Lighting  
236 Multimeter Using Android Smartphone  
237 Multipurpose Timer With Musical Alarm  
238 Multitone Generator Circuit  
239 Arduino Based Swarm Bots  
240 Multi-Utility Flashing Light

241 Music (Data) transfer by IR  
242 NE 555 Timer based Automatic Headlight  
243 Negative supply using 555 IC  
244 Networking of Multiple Microcontrollers  
245 Night Lamp with Timer for Stairs  
246 Non inverting amplifier  
247 Arduino based Waveform Generator For Electronics Laboratory  
248 Notepad Lamp  
249 Number Guessing Game  
250 Object Counter with 7 Segment Display  
251 Object Detection by Ultrasonic Means  
252 Obstacle Avoidance Robotic Vehicle  
253 Opamp as comparator  
254 Optimum Energy Management System  
255 Over Voltage or Under Voltage Tripping Mechanism  
256 Overheat/Overcooling circuit breaker  
257 Panic Sensing and Spontaneous Stabilization System for Cars to avoid Accidents  
258 Arduino Based World Intelligent Event Detection and Alert System with Network Interface  
259 Parallel Port Based Home Automation on Linux  
260 Parallel Telephone Lines with Security System  
261 Parked Vehicle Indicator  
262 Password Based Circuit Breaker  
263 PC Based Electrical Load Control  
264 PC Based Wireless Appliance Control  
265 PC Controlled Scrolling Message Display for Notice Board  
266 PC Temperature Controller  
267 Periodically Turning On & Off Mosquito Repellent Circuit Diagram  
268 Phase Preserving Image Denoising for Maximum Noise Removal  
269 Arduino Ethernet Interface for Industrial Automation  
270 Phase Sequence Checker for Three Phase Supply  
271 Pick N Place with Soft Catching Gripper  
272 Piezo sensor as input  
273 Piezo sensor as output  
274 Pin-Pong Ball Board for Eye Catching Marketing  
275 Pocket CRO using Android  
276 Porch Light (Auto Turn Off Light) Circuit Diagram  
277 Portable Programmable Medication Reminder  
278 Post Encryption Data Scrambling For Maximum Data Security random order

279 Ariel Red Herrings to Mislead Missile Tracking Systems  
280 Power failure alarm  
281 Power Saver for Industries & Commercial Establishments Æ□Å□ For more details about this project, please Abstract.  
282 Pre Set Off Timer  
283 Pre Stampede Monitoring and Alarm System  
284 Precise Digital Temperature Control  
285 Precise Illumination Control of Lamp  
286 Precision Current Source With Keypad interface to Select the current  
287 Predefined Speed Control of BLDC Motor  
288 Pre-programmed Digital Scrolling Message System  
289 Programmable AC Power Control  
290 Astable mode by NAND gate  
291 Programmable Energy Meter for Electrical Load Survey  
292 Programmable Load Shedding Time Management for Utility Department  
293 Programmable Switching Control for Industrial Automation in Repetitive Nature of Work  
294 Pulse Counter Fed with Infrared Pulses  
295 QuadraCopter with Six Degrees of Freedom and Obstacle Avoidance Built in  
296 QuadraCopter with Video transmission Ability  
297 Railway Level Crossing Gate Control through SMS by the Station Master or the Driver  
298 Railway Track Security System  
299 Random Number Generator Using 7 Segment Display  
300 Raspberry Based Home Automation  
301 ATmega644 JTAG Debugger  
302 Refrigerator Door Alarm  
303 Remote Controlled Toy Car  
304 Remote Jamming Device  
305 Remote Tester Circuit  
306 Audio amplifier  
307 RF based Fire Alarm (Overheat Alarm)  
308 RF Based Home Automation System  
309 RF based Intruder Alarm  
310 RF based Wireless Remote Control  
311 RF Controlled Hovercraft  
312 RF Controlled Robotic Vehicle With Laser Beam Arrangement  
313 RF Electrically Directional Antenna Based Tracking System  
314 RFID based attendance system  
315 RFID Based Device Control and Authentication Using PIC Microcontroller

316 RFID Based Door Access Control  
317 Audio Amplifier using Opamp  
318 RFID Based Paid Car Parking  
319 RFID Based Passport Details  
320 RFID security access control system  
321 Safety Alarm Circuit  
322 SCADA (Supervisory Control & Data Acquisition) for Remote Industrial Plant  
323 Secret Code Enabled Secure Communication Using RF Technology  
324 Secure room access system  
325 Security Alarm for Doors, Almirah, cupboards using Opam  
326 Security System Using Smartcard Technology  
327 Security System With User Changeable Password  
328 4 Player Quiz Buzzer  
329 Auto Braking System For Cars Detecting Momentum and Road Irregularities  
330 Seismic sensor  
331 Self Switching Power Supply  
332 Shadow Alarm using LDR  
333 Shadow Counter Solar Powered Long Range Communication System using Microwave Devices  
334 Short Range Ultrasonic Radar With Distance Measuring Capabilities  
335 Simple AC to DC converter using bridge rectifier  
336 Simple FM Radio Jammer  
337 Sine Pulse Width Modulation (SPWM)  
338 Single switch motor on/off.. Clockwise/anticlockwise  
339 Single Wheeled Self Balancing Bot  
340 Auto charging grinding machine with solar power  
341 Sleep Sensing and Alerting System for Drivers  
342 Smooth Start of a Single Phase Induction Motor  
343 Solar Energy Measurement System  
344 Solar mobile phone charger circuit  
345 Solar Power Charge Controller  
346 Solar Powered Auto irrigation System  
347 Solar Powered LED Street Light with Auto Intensity Control  
348 Sound generation in audio range  
349 Sound Generation using 555  
350 Sound Operated LED  
351 Auto Intensity Control of Street Lights  
352 Sound Operated Switch



353 Speed Checker to Detect Rash Driving on Highways  
354 Speed Control Unit Designed for a DC Motor  
355 Speed Synchronization of Multiple Motors in Industries  
356 Spell Effect Sign Display Circuit  
357 Staircase Light That Turns ON and OFF Automatically When Required  
358 Stamp Value Calculator for Postage Needs  
359 Step Up 6 Volt DC to 10 Volt DC Using 555 Timer  
360 Street Light that Glows on Detecting Vehicle Movement  
361 Suitcase Security Alarm  
362 Auto Metro Train to Shuttle Between Stations  
363 Sun Tracking Solar Panel  
364 SVPWM Space Vector Pulse Width Modulation  
365 Synchronized Traffic Signals at Various Junctions Using PIC Microcontroller  
366 Tampered Energy Meter Information Conveyed to Concerned Authority by Wireless Communication  
367 Temperature Broadcaster to Twitter Using Arduino Ethernet Interface  
368 Text to Speech Conversion For Indian Languages  
369 Theft Intimation of Vehicle Over SMS to Owner Who Can Stop the Engine Remotely  
370 Thermistor Based Temperature Control  
371 Three Phase Fault Analysis with Auto Reset on Temporary Fault and Permanent Trip Otherwise  
372 Three Phase Solid State Relay with ZVS  
373 Auto Power Supply Control from 4 Different Sources: Solar, Mains, Generator & Inverter to Ensure No Break Power  
374 Thumb Sized Adjustable Voltage Step Up Circuit  
375 Thumb sized capacitance Calculator  
376 Timer Circuit using IC CD 4060  
377 DTMF Decoder  
378 Dual converter Using Thyristors  
379 Easy to Use Automatic Light Controller to Turn ON Lights In Dark  
380 Electromagnetic Climbing Robots for Industries  
381 Electronic alarm for cash box, lockers  
382 Electronic Code Locking System  
383 Auto Selection of Any Available Phase, in 3 Phase Supply System  
384 Toggle flip flop using CD4013  
385 Toggle switch using CD4017  
386 Tone generator Circuit Diagram  
387 Touch Controlled Load Switch  
388 Touch Screen Based Home Automation System

389 Touch Screen Based Industrial Load Switching  
390 Touch Screen Based Remote Controlled Robotic Vehicle for Stores Management  
391 Touch Switch Circuit using 555 Timer  
392 Transformerless Low Loss DC Converter  
393 Transistor as audio amplifier  
394 Auto turn off battery charger  
395 Transistor Based Secret Bell  
396 Transistor based Security Alarm  
397 Tsunami Detection and Social Broadcast System  
398 Turn ON at Night Light Controller with Single Sensor Ambiguity Elimination  
399 TV Remote Operated Domestic Appliances Control  
400 Ultra Fast Acting Electronic Circuit Breaker  
401 UM3561 IC Based Security Alarm  
402 Underground Cable Fault Distance Locator  
403 Understanding Decade Counter CD4017  
404 Automated Car Parking System  
405 Unique Office Communication System Using RF  
406 UPFC Unified Power Factor Control  
407 USB Mobile Charger Circuit Diagram  
408 User Defined String Display and Marquee Scrolling using LED Array  
409 Using TV Remote as a Cordless Mouse for the Computer  
410 Variable power supply and charger with emergency light  
411 Vehicle Indicator  
412 Velocity Detector Using Ultrasonic Means  
413 Automated Traffic Signal Controller  
414 Vibration Alert System for the Deaf  
415 Video Activated Relay to Control the Load  
416 Vision Operated Home Automation For the Physically Disabled  
417 Visual Monitoring and Alerting System for Restricted Areas  
418 Visually Camouflaged Vehicles for Military Purposes  
419 Voice Controlled WheelChair  
420 Voltage boost by using a resistor with 78XX  
421 Voltage Doubler Circuit Using IC 4049  
422 Voltage Doubler Circuit Using IC555  
423 War Field Spying Robot with Night Vision Wireless Camera  
424 Automated Vehicle Identification and Toll-Pass System.  
425 Water Level indicator and Filling Time Estimator  
426 Water Sensor Circuit

427 Water Tank Overflow Alarm  
428 Wire Loop Breaking Alarm Signal  
429 Wireless Audio Transmitter for TV  
430 Wireless Control Of Robotic Arm  
431 Wireless Electronic Notice Board Using GSM  
432 Wireless message Communication Between Two Computers  
433 Wireless motor control through RF  
434 Wireless Power Transfer  
435 CD4001 IC based Lighting System  
436 CD4049 Based LED torch  
437 Cell Phone Based DTMF Controlled Garage Door Opening System  
438 Cell Phone Controlled Robotic Vehicle  
439 Cell Phone Operated Land Rover  
440 Clock with LED pendulum with tick tock sound  
441 Closed Loop Control for a Brushless DC Motor to Run at the Exactly Entered Speed  
442 Coin Toss/Flip Simulator Circuit  
443 Color distinguished using LDR/Color sensor using LDR  
444 Combinatorial Digital Circuit Logic Determining Device  
445 Accident Detection and Avoidance System Using Doppler Radar Interfaced with ATMEGA16  
446 Comprehensive Threat Detection for Offices  
447 Contactless Liquid Level Controller  
448 Continuous Speech Processing Using Python  
449 Continuous Speech to Text Conversion for Indian Languages  
450 Cyclo Converter Using Thyristors  
451 Darkness Detector Alarm  
452 Density Based Traffic Signal System  
453 Relay activation using TSOP 1738  
454 Relay control by sound  
455 Relay control through mic  
456 Relay operation using Darlington Pair  
457 Reminder Alarm  
458 Remote Control For Home Appliances  
459 Digital Stop Watch  
460 Discotheque Light Stroboscopic Flasher  
461 Dish Positioning Control by IR Remote  
462 Display of Dialed Telephone Numbers on Seven Segment Displays  
463 Display System used in Restaurant

464 Distance Measurement by Ultrasonic Sensor  
465 Thumb sized Resistance Calculator  
466 Thyristor Controlled Power for Induction Motor  
467 Thyristor Power Control by IR Remote  
468 Time Delay Based Relay Operated Load  
469 Timed Switch With User Defined ON and OFF Intervals  
470 Timer Based Code Lock  
471 Timer Circuit using IC 4026