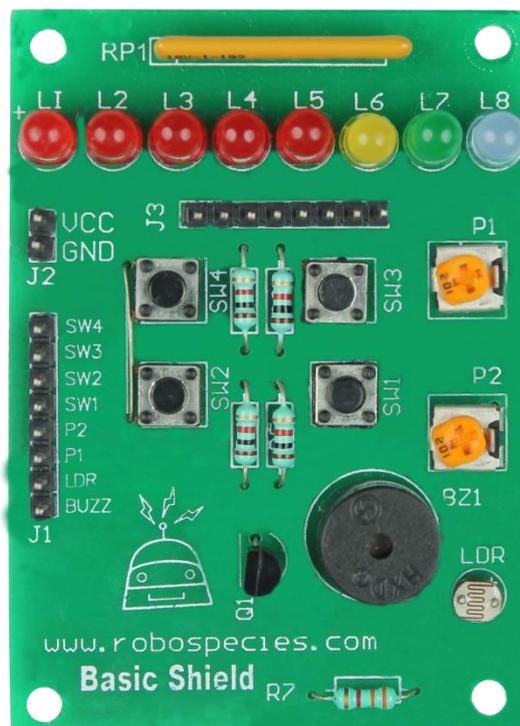


*Presents*

## BASIC SHIELD (RS-1001)



*Learn Everything Here*

# GUROMY

A RoboSpecies Initiative [.com](http://www.guromy.com)

## Basic Shield (RS-1001)

This Basic Shield can be interface with 5V or 3.3V logic microcontroller boards like Arduino, AVR, PIC, 8051, ARM etc. Basic Shield is very popular shield for interfacing of electronics component with microcontroller like LED's, variable resistor, Push Button, LDR, buzzer etc.

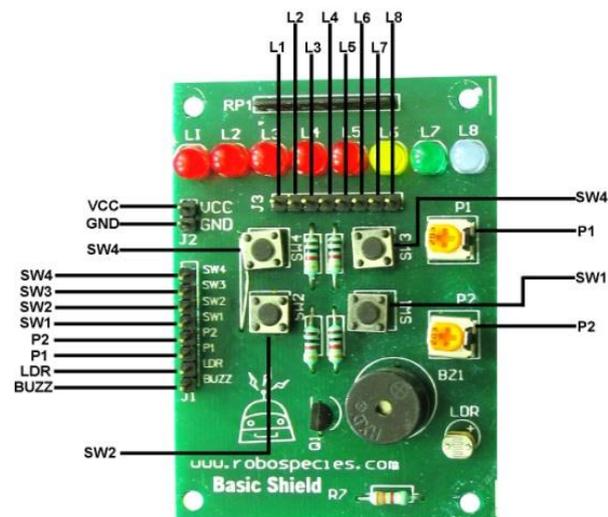
All components are arranged in a proper manner so that you can use it with your microcontroller to learn basic programming of microcontroller in your projects. This shield helps you how to deal with basic electronics component in your project.

### Technical Specification:

- ✓ It contains 8 LEDs (5 mm)
- ✓ 4 Push Button
- ✓ 2 Potentiometer (102k)
- ✓ LDR (light detection resistor)
- ✓ Buzzer

This shield is comfortable with 5v or 3.3VDC power supply, and easy to fix on board (chassis). All components have separate pin so that you can use them in your projects per your project need.

Note – this basic shield has been designed with Common anode network, means to glow led you have to connect LOW logic signal at led pins.



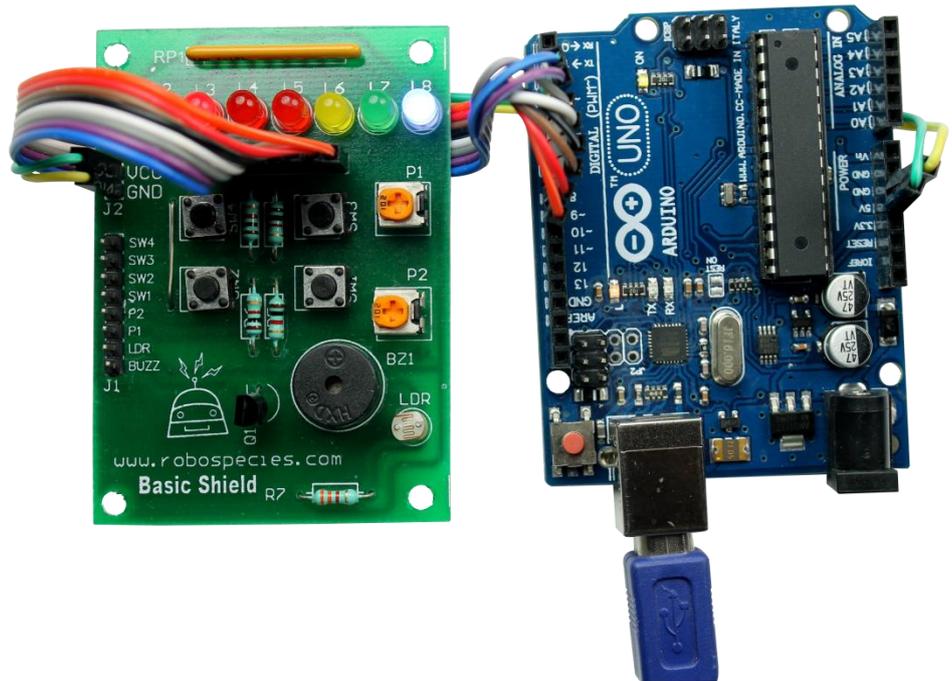
Basic Shield

### How to use Basic Shield:

- ✓ First Connect 5v or 3.3v DC Power Supply to power up Basic Shield.
- ✓ Connect LDR or SW1-SW4 or POT Pin of Basic Shield to your input pins of microcontroller. In case of LEDs connect your LEDs pin with output pins of microcontroller.
- ✓ For each component there is pin on board, that pin you can connect with the pins of microcontroller as per your requirement.
- ✓ With the help of this board you can interface analog sensors (Potentiometer and LDR), or output device like a LED to see your output.

## Sample Code:

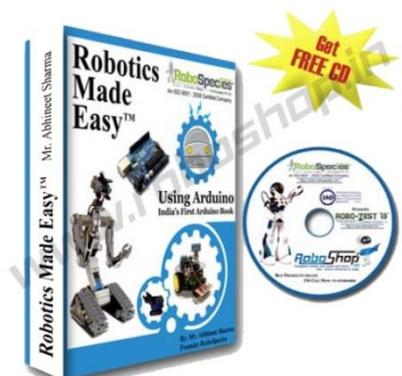
```
void setup() {
  pinMode(13,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(11,OUTPUT);
  pinMode(10,OUTPUT);
  pinMode(9,OUTPUT);
  pinMode(8,OUTPUT);
  pinMode(7,OUTPUT);
  pinMode(6,OUTPUT);
}
void loop() {
  digitalWrite(12,HIGH);
  digitalWrite(10,HIGH);
  digitalWrite(8,HIGH);
  digitalWrite(6,HIGH);
  digitalWrite(13,LOW);
  digitalWrite(11,LOW);
  digitalWrite(9,LOW);
  digitalWrite(7,LOW);
  delay(500);
  digitalWrite(13,HIGH);
  digitalWrite(11,HIGH);
  digitalWrite(9,HIGH);
  digitalWrite(7,HIGH);
  digitalWrite(12,LOW);
  digitalWrite(10,LOW);
  digitalWrite(8,LOW);
  digitalWrite(6,LOW);
  delay(500);
}
```



## OUTPUT:

The output of the program is all the even leds will glow at once and then after 500 milliseconds all the odd leds will glow. The basic shield is connected with a microcontroller board in which this sample code is uploaded already. You can see the output in the picture.

**For detailed explanation and understanding buy our complete Robotics Cook Book-**



**“Robotics Made Easy”**.