

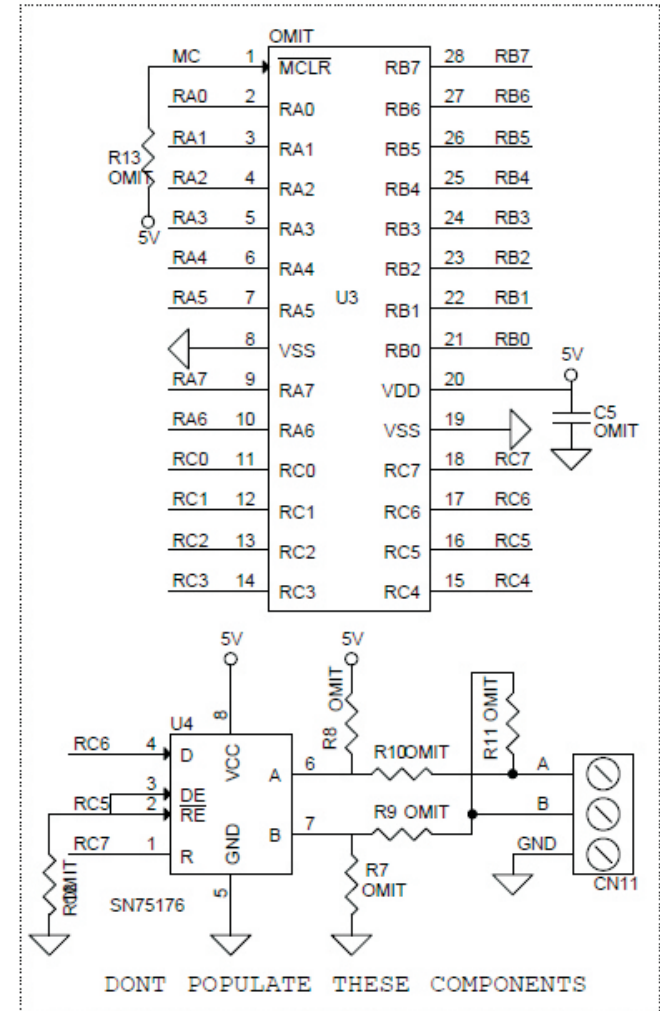
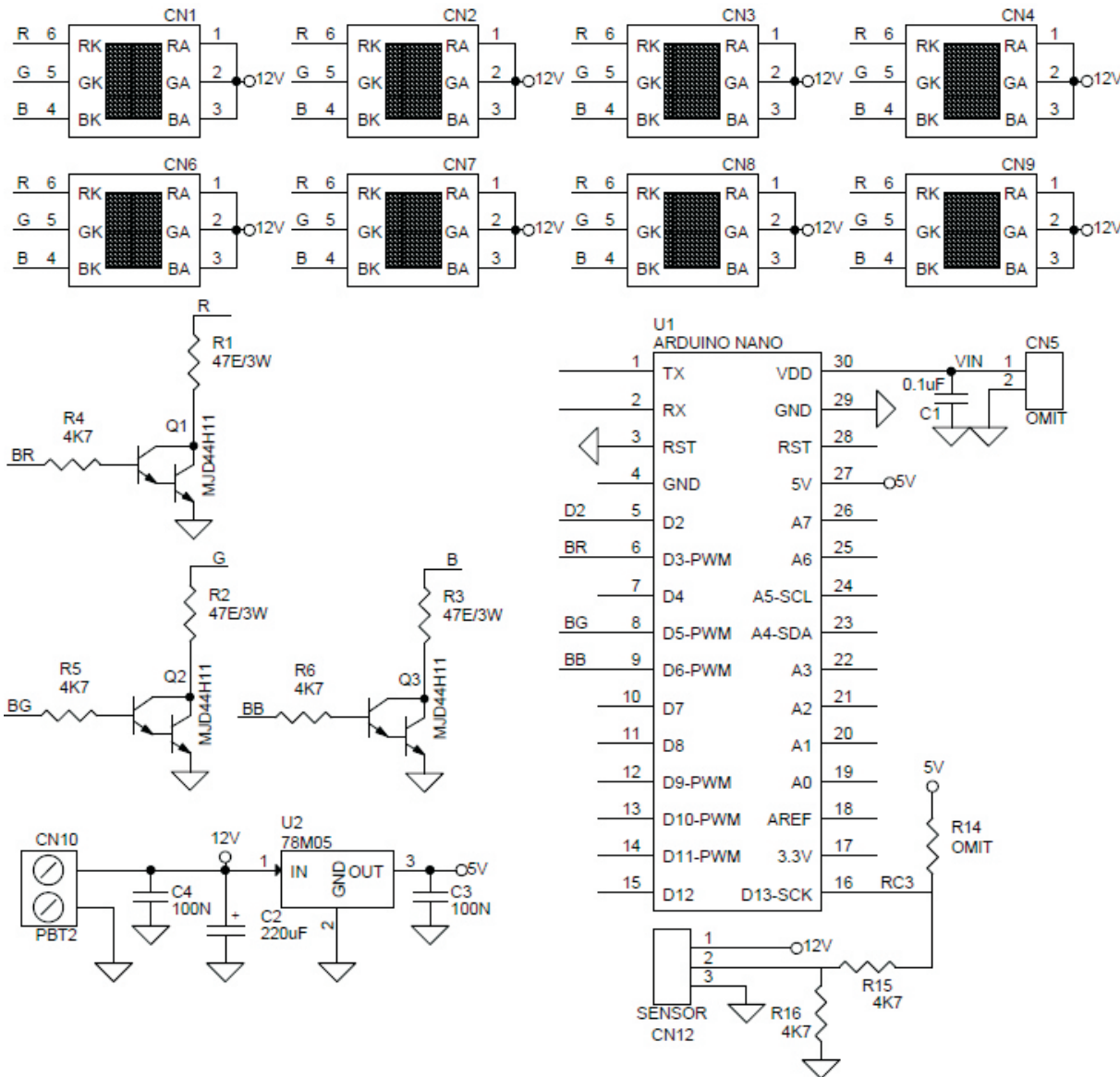
8 RGB LED Driver Shield for Arduino Nano Including Defuse Sensor

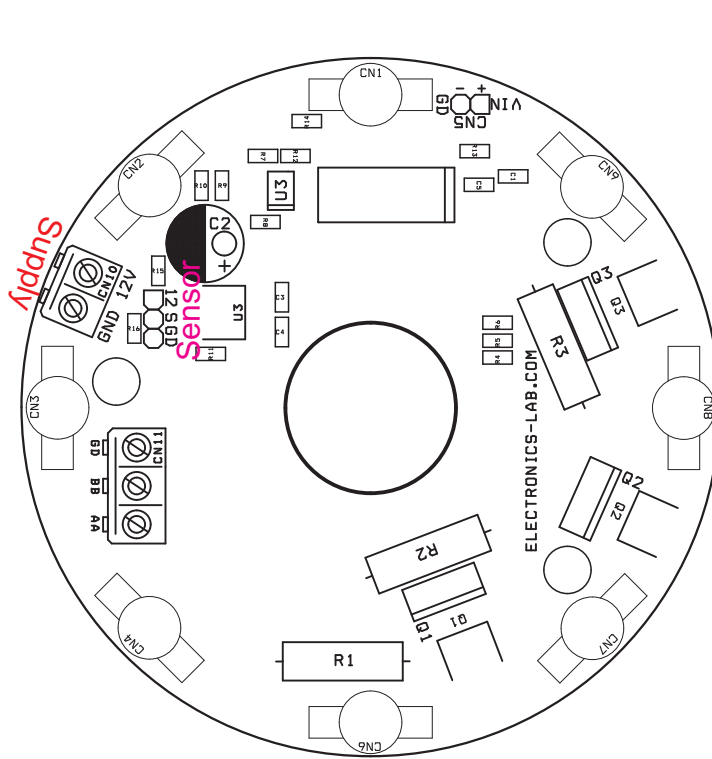
The board consist 8 Nos. RGB LEDs 1W of each, BJT transistors on each LED, series resistor across the LED for current limit, provision to mount 18MM optical sensor may be defuse sensor for object detection and Arduino nano. The board can be programed and create multiple RGB LED related applications, like interactive lamp, automatic bathroom light. I have used Omron E3F-D32 Defuse optical sensor which can detect human or object with distance up to 300MM, when sensor detect any object within range of 300mm its provides output, the output is PNP type, the range of sensor adjustable using trimmer pot and also sensor has operation LED indicator. All RGB LED transistors connected to D3, D5, D6 of Arduino PWM pins which helps to create multi-color. Optical sensor connected to digital pin D13 of Arduino Nano. Board also has proto-type area to mount other sensors or circuitry, some additional components provided to make Pic based applications or RS485 based RGB LED controller. Circuit works with 12V DC.

Features

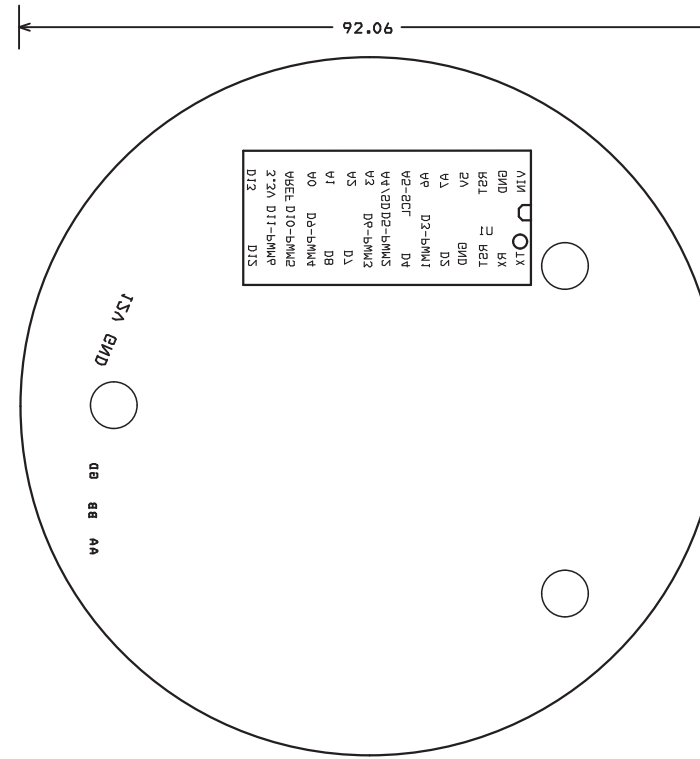
- Supply 12V DC
- 8 RGB LEDs Each 1W
- Defuse Reflective Sensor for Interactive Light
- PCB Diameter 92.06 MM





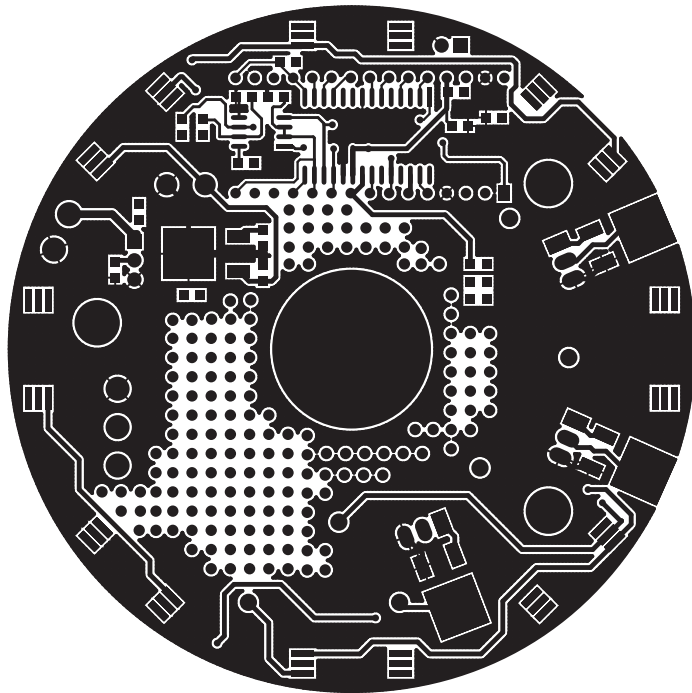


SILK SCREEN TOP LAYER

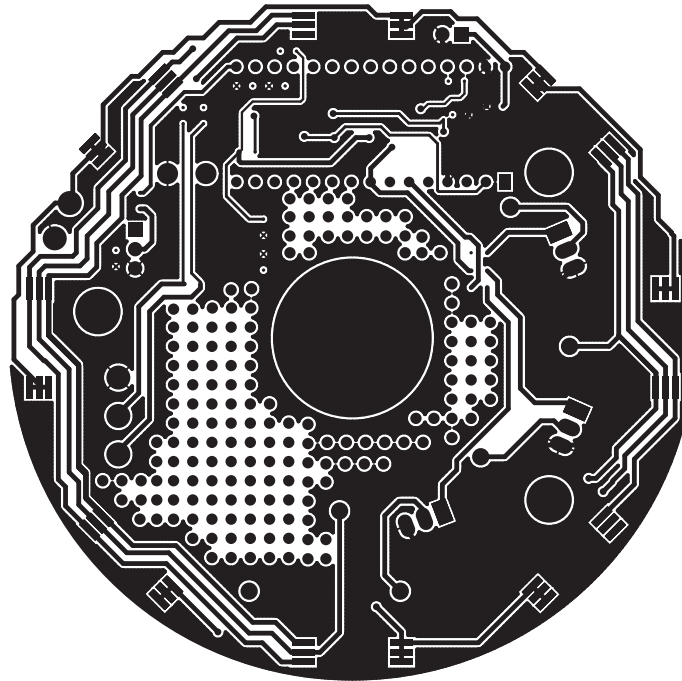


SILK SCREEN BOTTOM LAYER





TOP LAYER



BOTTOM LAYER

| BOM | | | |
|------------|-------------|--|-----------------------------|
| SR. | QNTY | REF. | DESC |
| 1 | 8 | CN1,CN2,CN3,CN4,CN6,CN7,CN8,CN9 | RGB LED 1W |
| 2 | 11 | U3,CN5,C5,R7,R8,R9,R10,R11,R12,R13,R14 | OMIT |
| 3 | 1 | CN10 | 2 PIN SCREW TERMINAL |
| 4 | 1 | CN11 | OMIT |
| 5 | 1 | CN12 | OMRON E3F-D32 DEFUSE SENSOR |
| 6 | 1 | C1 | 0.1uF SMD 0805 |
| 7 | 1 | C2 | 220uF/25V |
| 8 | 2 | C3,C4 | 100N SMD 0805 |
| 9 | 3 | Q1,Q2,Q3 | MJD44H11 SMD DPAK |
| 10 | 3 | R1,R2,R3 | 47E/3W |
| 11 | 5 | R4,R5,R6,R15,R16 | 4K7 SMD 0805D |
| 12 | 1 | U1 | ARDUINO NANO |
| 13 | 1 | U2 | 78M05 DPAK |
| 14 | 1 | U4 | OMIT |