

# Trippy RGB Light

23-Nov-09

an open-source project by Mitch Altman  
hacked from the open-source MiniPOV3 kit by Limor Fried (aka Ladyada)

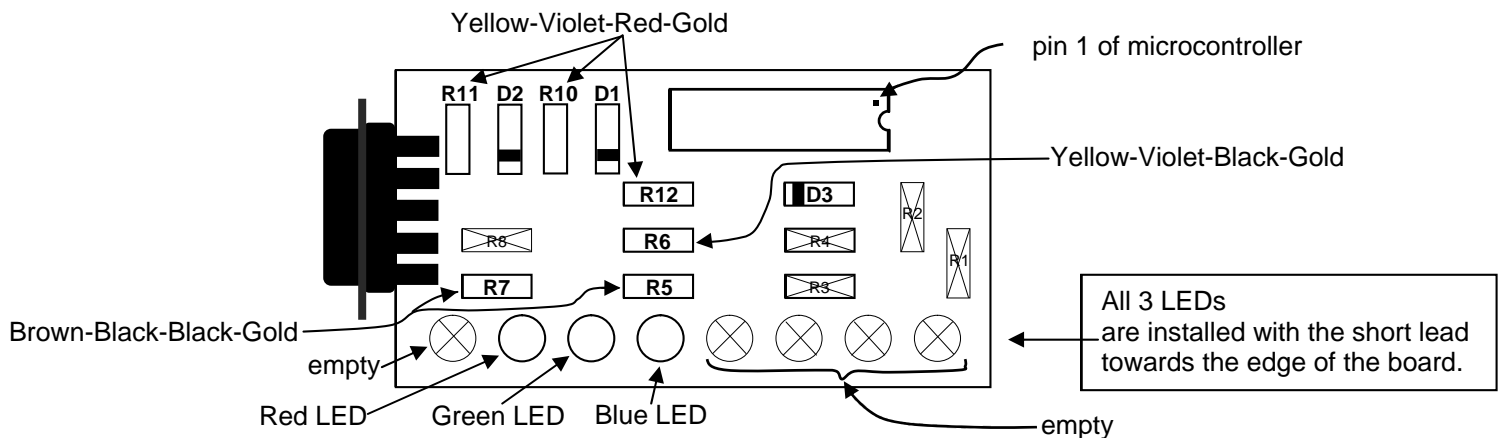
## Assembly Instructions

This kit has all of the components you need to build your own Trippy RGB Light.

1) You can follow the initial steps to build the MiniPOV3 kit, or just skip to the diagram at the bottom of this page. If want to follow the MiniPOV3 kit instructions, find them here:  
<http://ladyada.net/make/minipov3/solder.html>

**You will need to skip the installation of many of the parts! -- only install:**

- R10, R11, R12 – these are all Yellow-Violet-Red-Gold resistors
- 2) now skip some instructions from the Ladyada instructions, and install:
- D1, D2, D3 – these are the three zener diodes, so be sure to match the black stripe on the diodes with the black stripe on the board
  - Serial Port Connector.
- 3) now we'll install:
- R5 and R7, which are both Brown-Black-Black-Gold resistors
  - R6 which is a Yellow-Violet-Black-Gold resistor.
- 4) next look at the Ladyada instructions for the LEDs – we will only install one Red LED:
- The Red LED is the one without any label, and it goes in the board 2<sup>nd</sup> from the Serial Port connector. **IMPORTANT:** the short lead goes towards the edge of the board. (See picture, below.)
- 5) next install the Green LED
- Remove the label from the Green LED and install it in the next LED circle on the board (with the short lead towards the edge of the board).
- 5) next install the Blue LED
- Remove the label from the Blue LED and install it in the third LED circle on the board (with the short lead towards the edge of the board).



- The battery pack has a switch on it. *Make sure it is off when you first install the batteries.*
- After placing the microcontroller chip in its socket and turning on power for the first time, the microcontroller will run the firmware that I already programmed into it: the three LEDs will light up, first Red, then Green, then Blue, followed by a sequence of colors. If no LEDs light up, turn off power immediately and debug (chip in backwards? power attached backwards? bad solder connections?)
- Please feel free to hack the firmware! It is available at:  
<http://CornfieldElectronics.com>  
click on the “maker faire” button and scroll down to “Project: Make your own Trippy RGB Light”
- Feel free to email me with any questions:  
[mitch@CornfieldElectronics.com](mailto:mitch@CornfieldElectronics.com)