**Mechanical Materials**

1. Eight 5050 RGB Neopixel LEDs

<https://www.adafruit.com/product/1655>

1. Pulse Sensor

<https://www.sparkfun.com/products/11574>

1. Arduino Uno

<http://www.jameco.com/z/A000066-Arduino-Arduino-Uno-R3-DIP-Edition-Revision-3-_2151486.html?CID=GOOG&gclid=CML9r9v129MCFQaFaQod0FoLvw>

1. Black Solid Core Wire (used for bridging and LEDs)
2. 1000uf Capacitor
3. 390 ohm Resistor
4. Breakout Boards made in Step 3
5. Male Headers

<http://www.jameco.com/z/A000066-Arduino-Arduino-Uno-R3-DIP-Edition-Revision-3-_2151486.html?CID=GOOG&gclid=CML9r9v129MCFQaFaQod0FoLvw>

1. Solderable PC board

[https://www.amazon.com/Vktech-Prototype-Universal-Printed-Circuit/dp/B00CGV6TZG/ref=pd\_sim\_328\_12?\_encoding=UTF8&pd\_rd\_i=B00CGV6TZG&pd\_rd\_r=XAKCPAYWEFZFQ8QV63TS&pd\_rd\_w=l8ghQ&pd\_rd\_wg=6r9Xb&psc=1&refRID=XAKCPAYWEFZFQ8QV63TS](https://www.amazon.com/Vktech-Prototype-Universal-Printed-Circuit/dp/B00CGV6TZG/ref%3Dpd_sim_328_12?_encoding=UTF8&pd_rd_i=B00CGV6TZG&pd_rd_r=XAKCPAYWEFZFQ8QV63TS&pd_rd_w=l8ghQ&pd_rd_wg=6r9Xb&psc=1&refRID=XAKCPAYWEFZFQ8QV63TS)

1. 4 Different color stranded wires (to distinguish from VSS,VDD,DIN&DOUT) I used Black for ground, Red for power, Yellow for DOUT & White for DIN
2. On-Off Rocker Switch

[https://www.amazon.com/gp/product/B00VU381FW/ref=oh\_aui\_detailpage\_o00\_s00?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B00VU381FW/ref%3Doh_aui_detailpage_o00_s00?ie=UTF8&psc=1)

1. Clear Shrink Tubing
2. 9V battery
3. 9V barrel jack Adapter

[https://www.amazon.com/gp/product/B00Q9YB5DW/ref=oh\_aui\_detailpage\_o02\_s00?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B00Q9YB5DW/ref%3Doh_aui_detailpage_o02_s00?ie=UTF8&psc=1)