## Adafruit

6 x NeoPixel Ring - 16 x 5050 RGBW LEDs w/ Integrated Drivers (Warm White -

~3000K) [ID:2854] = $71.70

2 x Breadboard-friendly RGB Smart NeoPixel - Sheet of 25[ID:1558] = $79.90

3 x Adafruit Metro Mini 328 - 5V 16MHz[ID:2590] = $37.50

## Amazon

3x USB micro 4’ cables

3x headlamps for their straps

3x usb banks

Foam sheet <https://www.amazon.com/gp/product/B016YNB8D4/ref=od_aui_detailpages00?ie=UTF8&psc=1>

## Medium Run Construction

### LEDs:

Bear: 16 + 16 + 16 + 16 = 64 LEDs/mask

Cat: 16 + 16 + 8 + 8 = 48 LEDs/mask

50x Bears and 50x Cats = 5650 LEDs

Let’s say at this “low” quantity it’s 25cents/unit [(see search)](https://www.alibaba.com/trade/search?fsb=y&IndexArea=product_en&CatId=&SearchText=SMT+RGB+5050+LED&viewtype=G)

That’s $1412.50 for LEDs

### Boards:

24sq inches per board

[Oshpark does $1/sq inch](http://docs.oshpark.com/services/two-layer-medium-run/) with Medium run

At 100 boards, that’s 24 \* 100 = $2400 for board

### Acrylic

24sq inches per board

[Canal Plastics](https://www.canalplastic.com/collections/plexi-sheets/products/see-thru-mirror-acrylic-sheet?variant=32913712078) is $132 for a sheet of 24”x48” (1152 square inches)

Two sheets round up… $132 \* 3 = $396

How much will laser cutting cost?

### Soft rubber face plate

??? need to find material name

### Components

Battery: maybe just do a lithium ion cell battery? $10 ea.

AVR: $10 ea

Switch/button: $1 ea

### Subtotal

$6308

$63.08 each

## Small Run… 10pieces?

$40 for LEDs

Channel rubber

$132 for acrylic