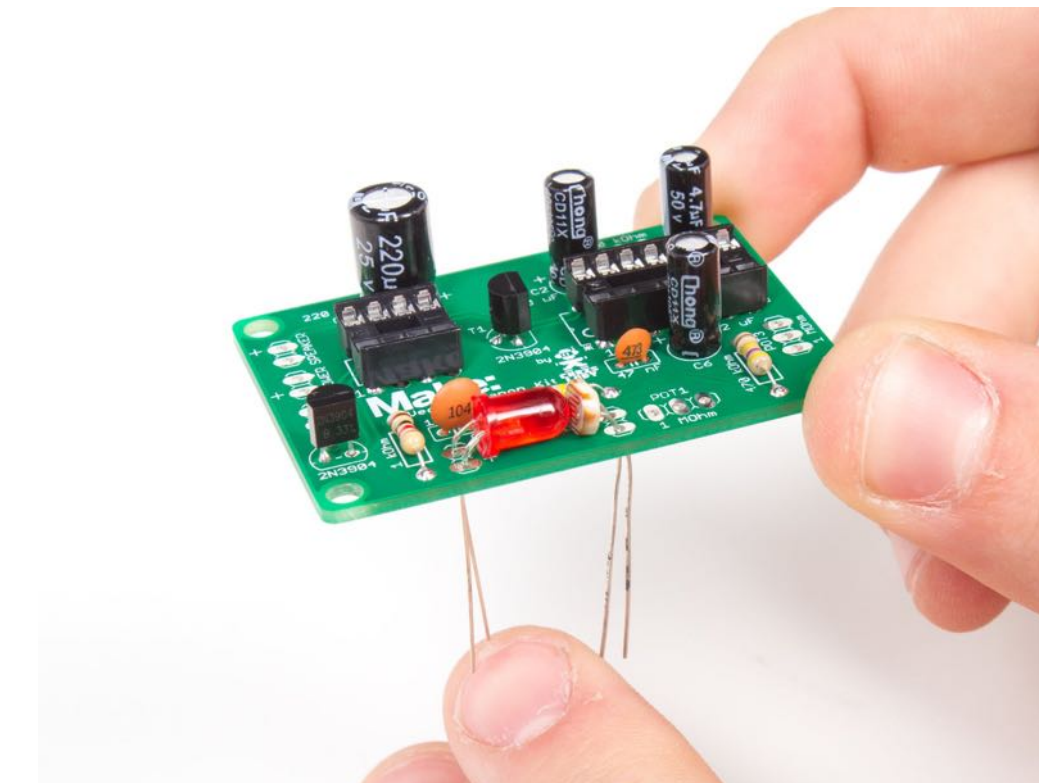


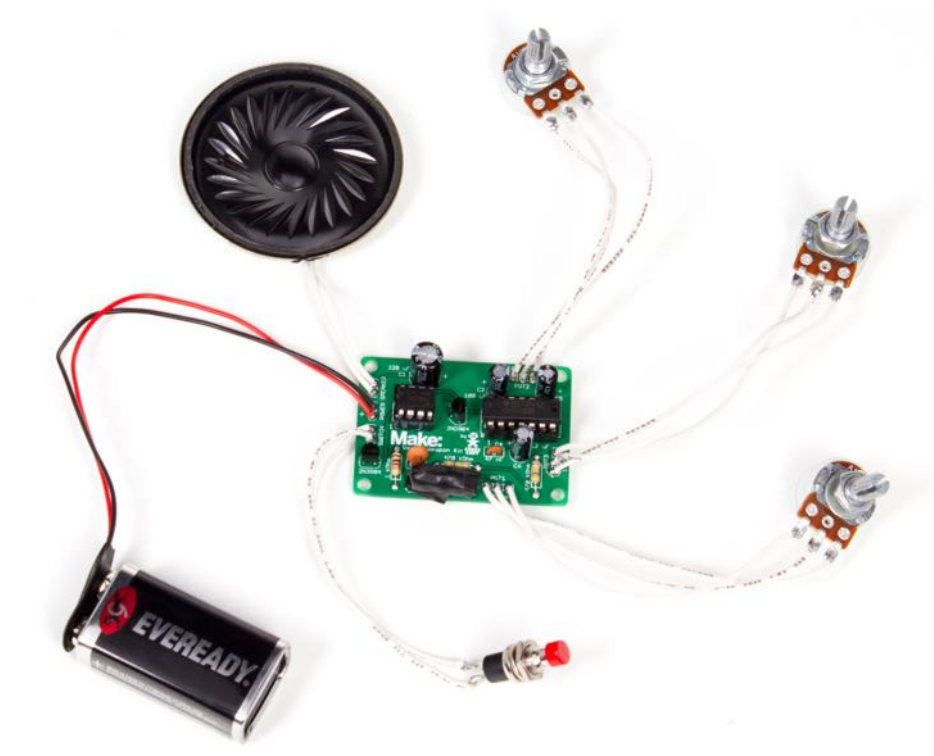
Riff Raff's Ray Gun

Riff Raff's Ray Gun was developed by adapting a low-fi analog synth circuit designed by Chris Lody. The gun consists of three main components: a 30W megaphone, a modified synth circuit, and a custom fabricated 3D-printed LED assembly. The synth circuit utilizes a Schmitt Trigger, three independent potentiometers, and an optocoupler to create a variety of oscillations and modulations in the signal. The potentiometers allow the actor to alter the frequency and rate of the oscillators, enabling endless variations in the sound of the weapon.

The front of the device contains a ring of RGB LEDs, which pulse and change color based on the output of the second oscillator. There is also a group of high-intensity red LEDs in the center of the device which form a beam whenever the trigger is activated. The device was finished with gold spray paint and several vacuum tubes, which are each illuminated by the light of the LEDs.

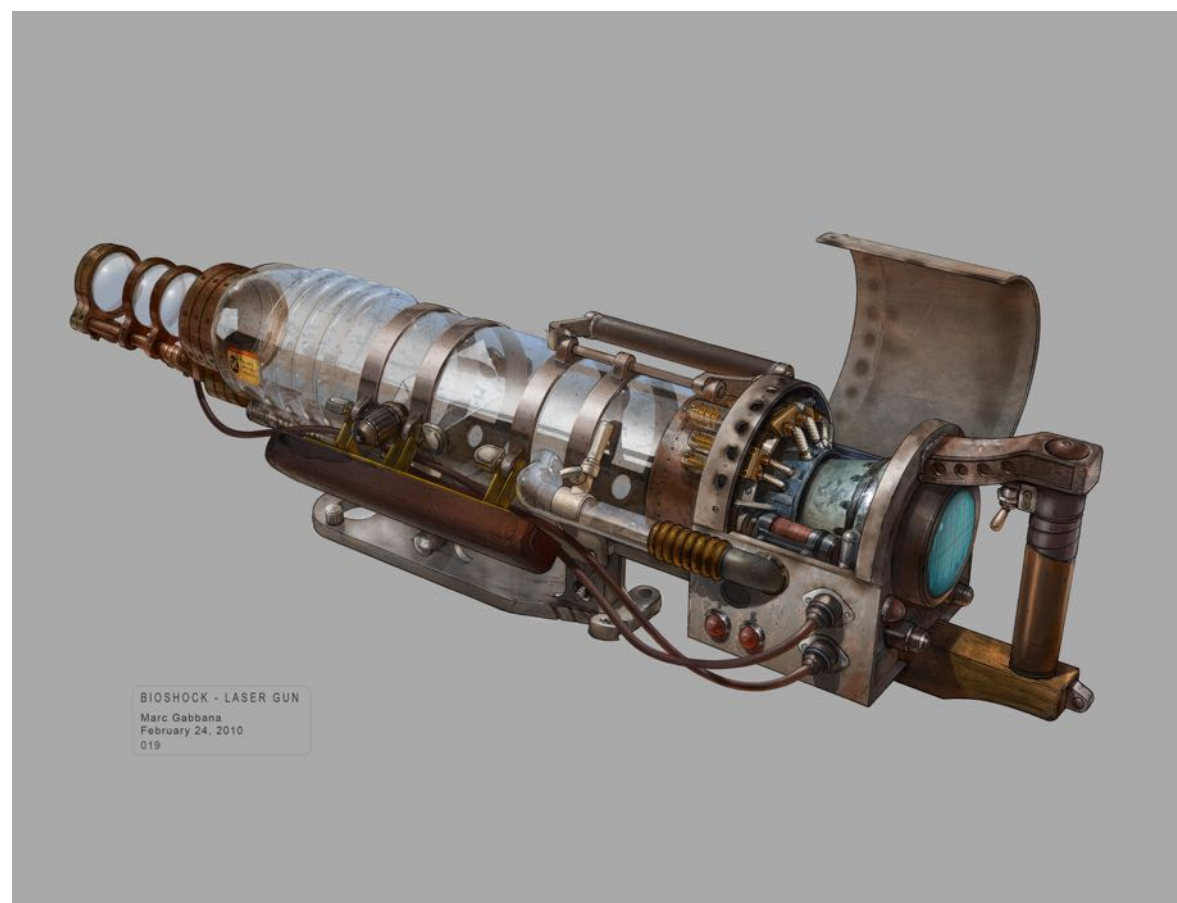


LED/LRD Synth Circuit

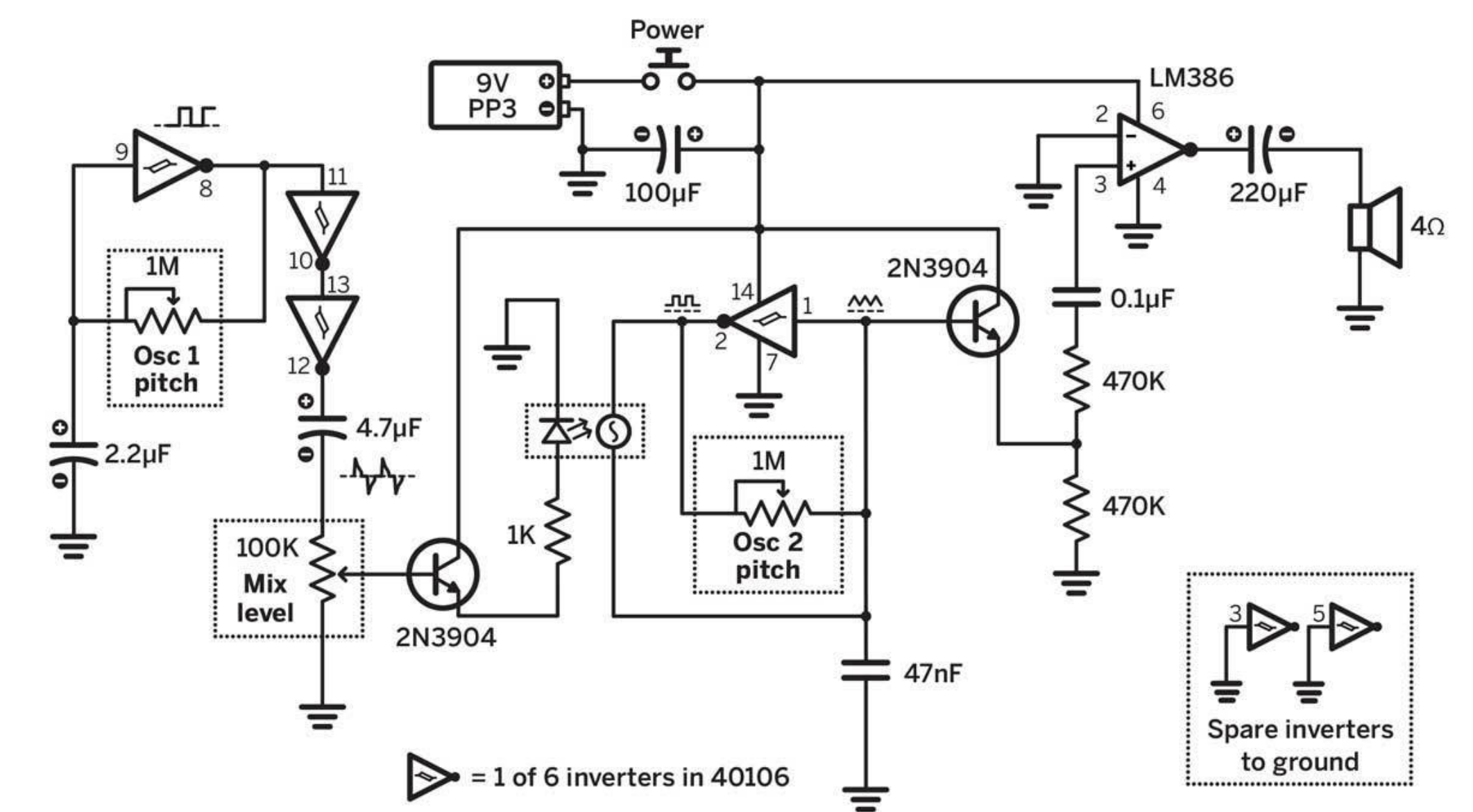
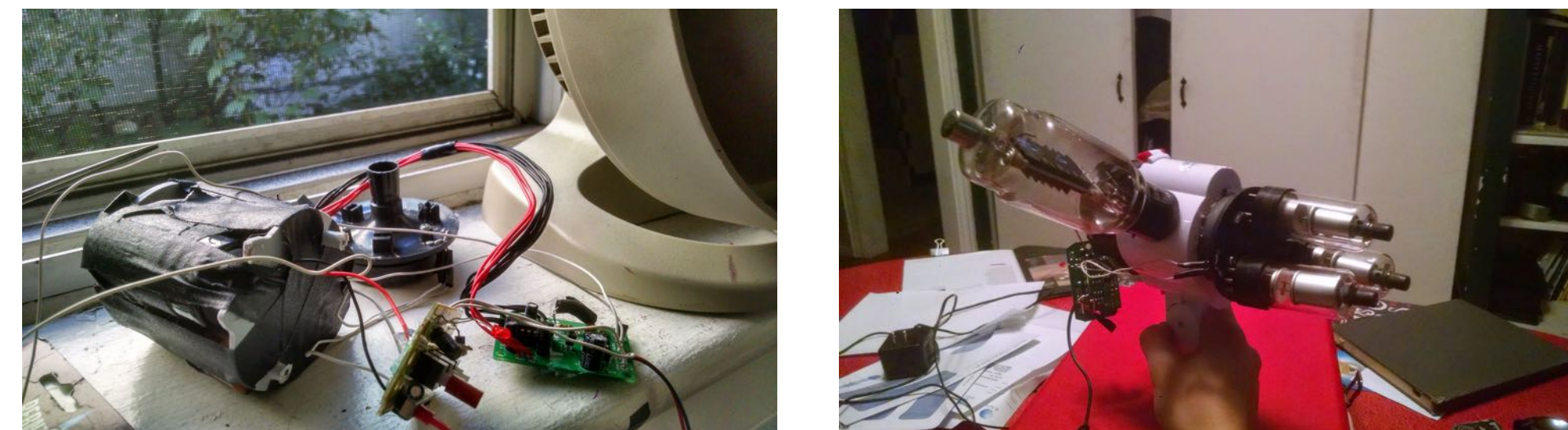


Full Synth Assembly

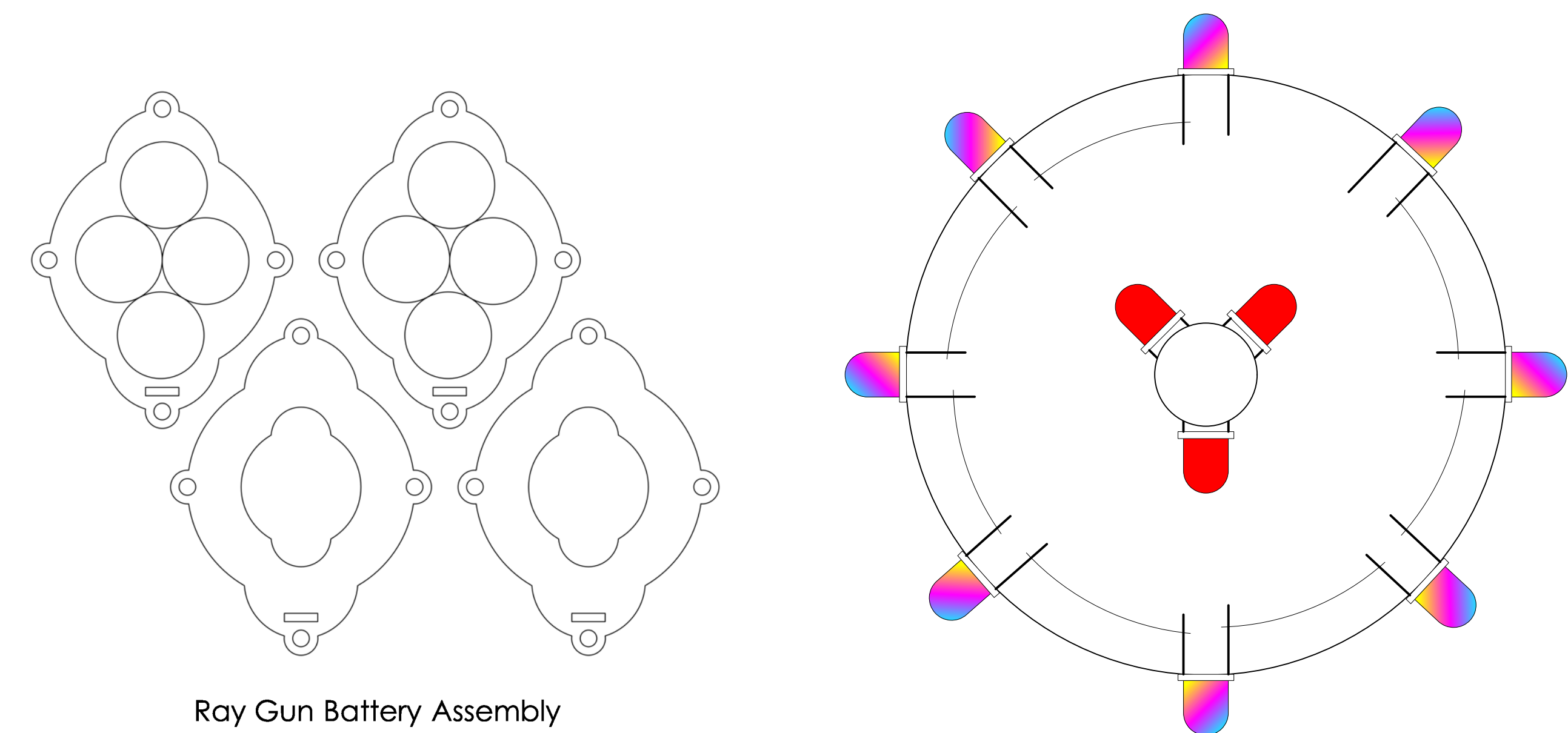
Image Research



Construction and Testing



Synth wiring diagram (not pictured: LED integration)



Ray Gun Battery Assembly

LED Assembly (Front)