Nerf gun attachments

3 attachments are printed for the nerf-gun:
One is attached to the barrel.
One is attached to the handguard rail.
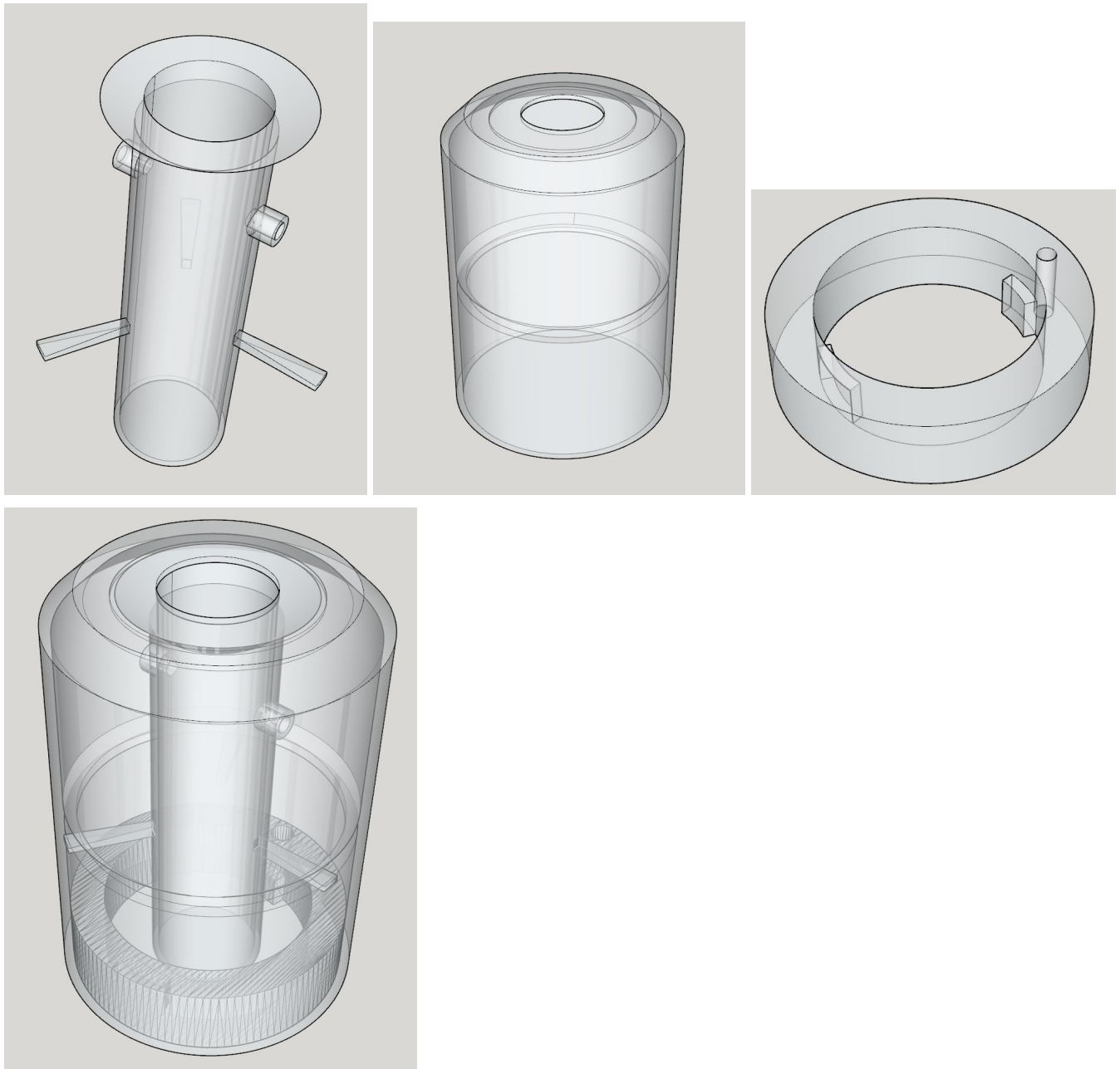One is attached as a "scope".

The STL files and sketchup files can be found in "~/Project_Nerf_Alpha/3D_Design/"

Barrel attachment

The barrel attachment consists of 3 3D printed parts and two electrical components.

Printed parts

The 3 parts are an inner tube, an outer tube, and a locking mechanism.
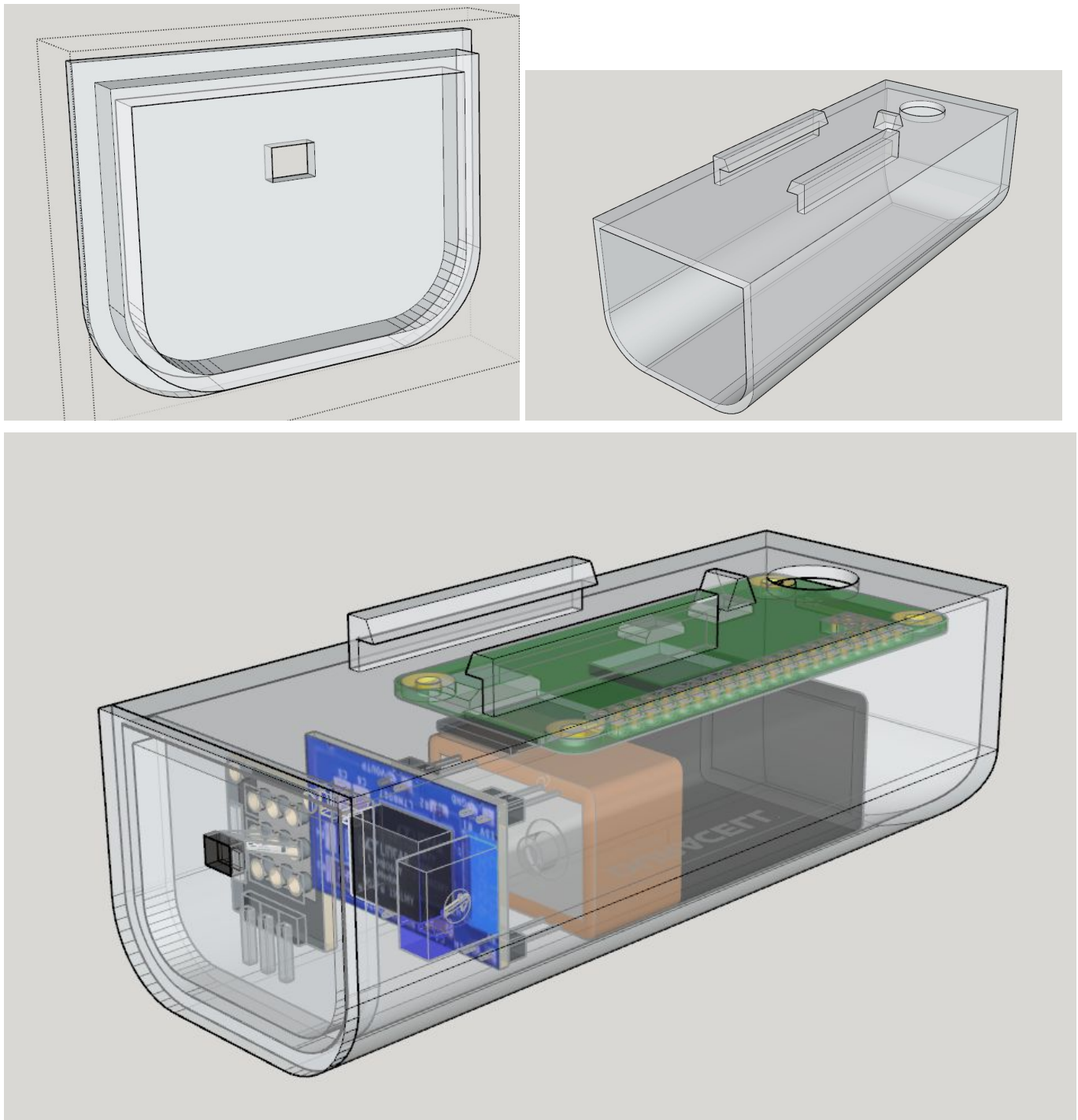
Electrical components

The 2 parts are an ILIR034 3mm infrared LED and the phototransistor from a TCRT5000.

Handguard rail attachment

The handguard rail attachment consists of 2 3D printed parts, 3 electrical components and a 9V battery.

Printed parts

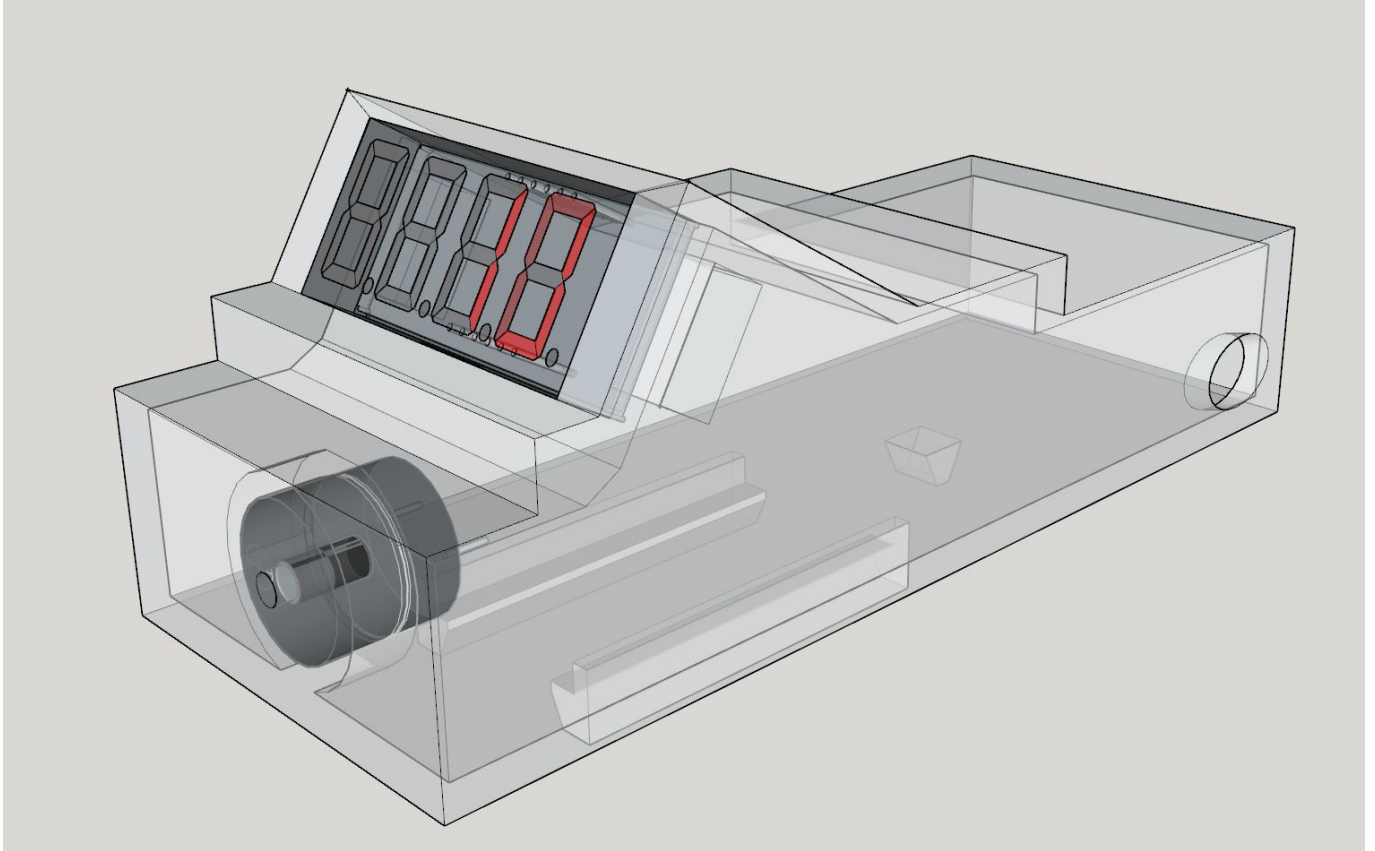A housing for components and a "plug" is 3D printed.

Electrical components

The 3 electrical components are a Raspberry Pi Zero W, a LTM8067Y isolated DC-to-DC converter (BOB) and a 3144 sensitive hall-effect switch (BOB).

"Scope" attachment

The "Scope" attachment consists of 1 3D printed part and 2 electrical components.

Printed parts

A housing for the seven segment display and the buzzer is 3D printed.

Electrical components

The 2 electrical components are a 3461BS-1 4-digit 7-segment display, and a 12mm diameter active buzzer.