



# Dis/assembling Eye/Pupil Camera Housing

Creation of headset for RADlab. First: eye camera Second: pupil camera

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## TOOLS:

- [Pro Tech Toolkit](#) (1)
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## Step 1 — Dis/assembling Eye/Pupil Camera Housing



- First: Eye Camera
- Remove initial frame (crack off)

## Step 2



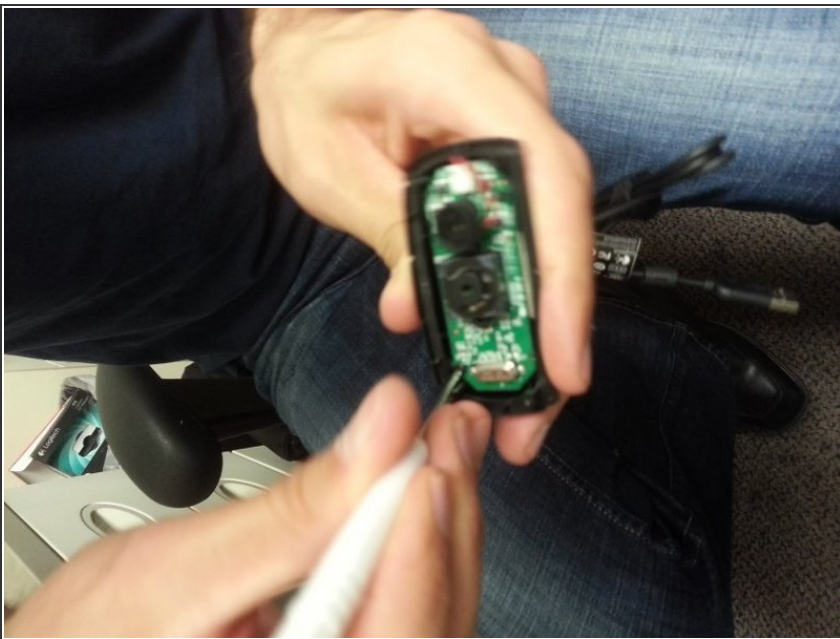
- Remove 4 screws.

### Step 3



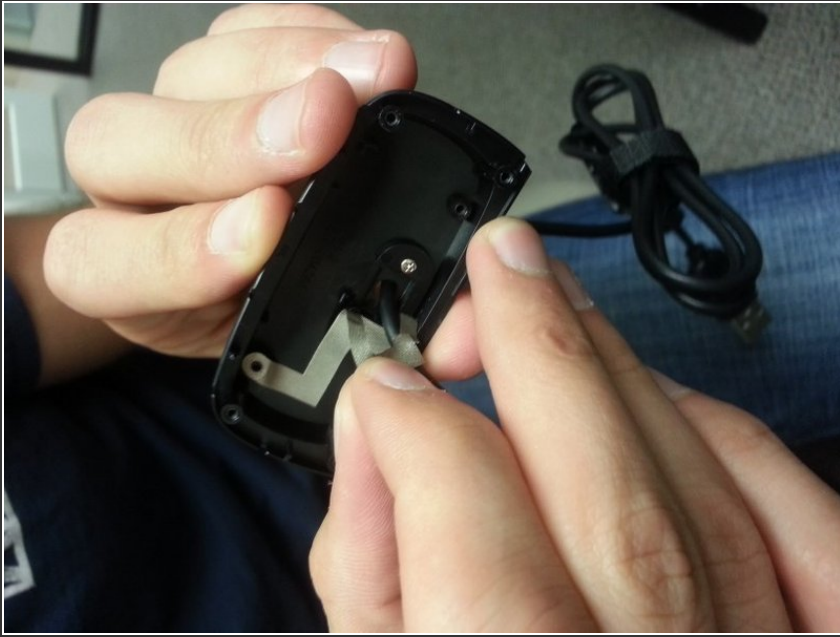
- Remove cover to get to the PCB underneath

### Step 4



- Remove two screws on the PCB.

## Step 5



- Remove PCB from the base plastic piece.

## Step 6



- Break base plastic piece. Cutters work well. Be careful not to snip the wire attached to the PCB.

## Step 7



- Black mold (from 3D printer) piece attaches to the PCB with 4 screws.

## Step 8



- Completed assembly of the eye camera.

## Step 9 — Pupil camera dis/assembly



- Back of pupil camera is glued on. Remove with flat-head.

## Step 10



- Remove the black frame on the front of the pupil camera.

## Step 11



- Once frame is taken off the front, two screws need to be removed.

## Step 12



- One screw removed from the back.

## Step 13



- Front housing comes off once the screws are removed from the frame.
- Twist out the silver microphone.

## Step 14



- Pull off bottom stand until it breaks off.

## Step 15



- Remove rubber/plastic piece from the bottom

## Step 16



- Remove four screws from under the plastic tape (removed from last step).

## Step 17



- Bottom pops off

## Step 18



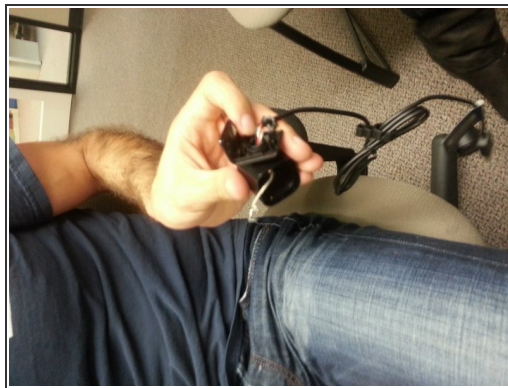
- Separate the metal frame from the plastic assembly.
- Avoid the cables

## Step 19



- Take out PCB from the plastic housing.

## Step 20



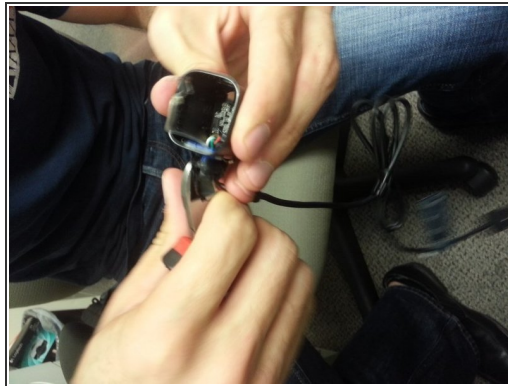
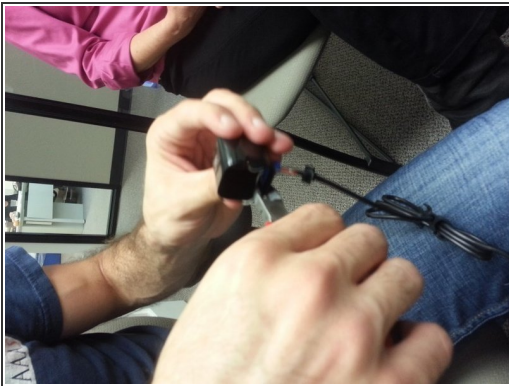
- Remove the rest of the black plastic housing.

## Step 21



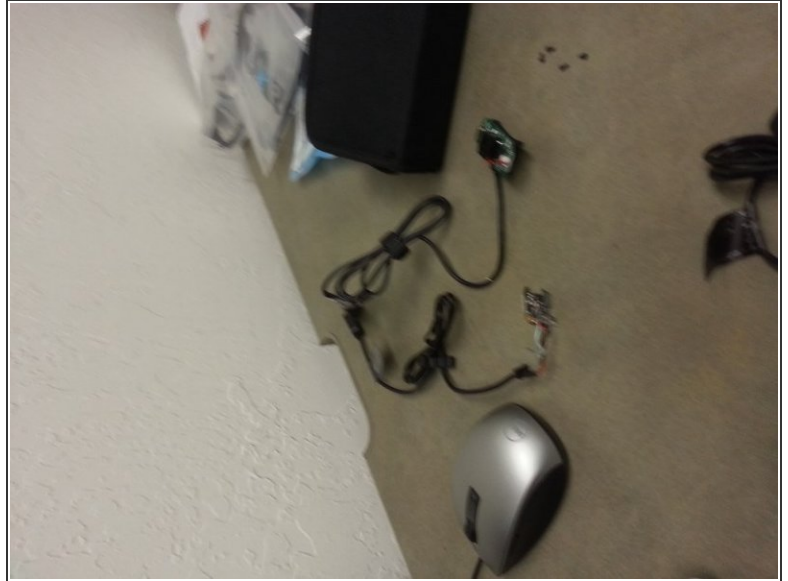
- Black plastic housing removed

## Step 22



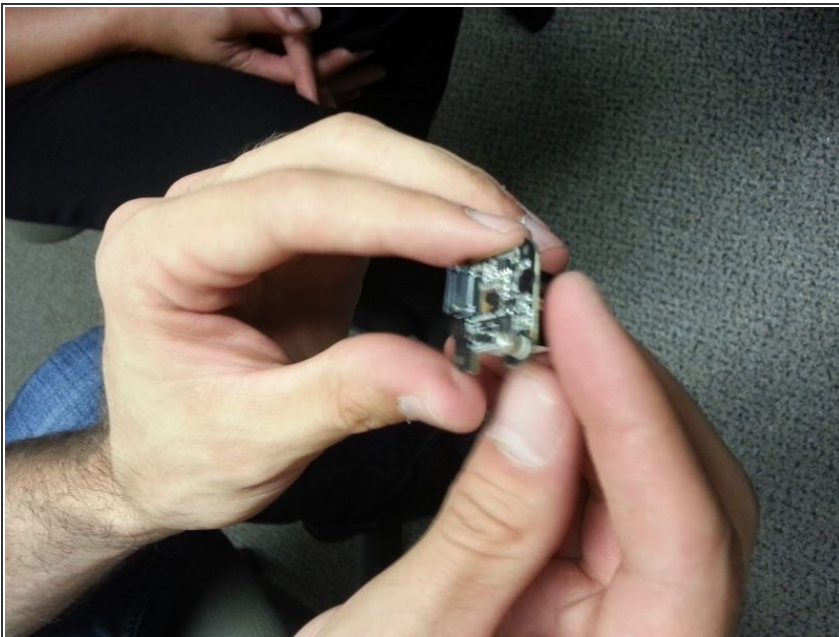
- Continue removing the black plastic housing surrounding the inner PCB.

## Step 23



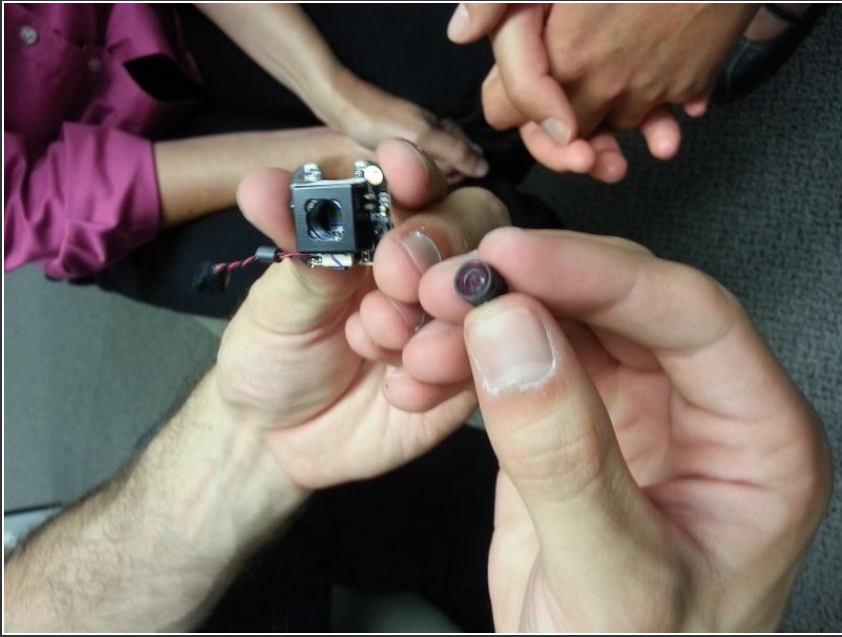
- PCB removed from the black plastic housing.

## Step 24



- Autofocus assembly.
- Remove two screws from the bottom of the auto-focus PCB.

## Step 25



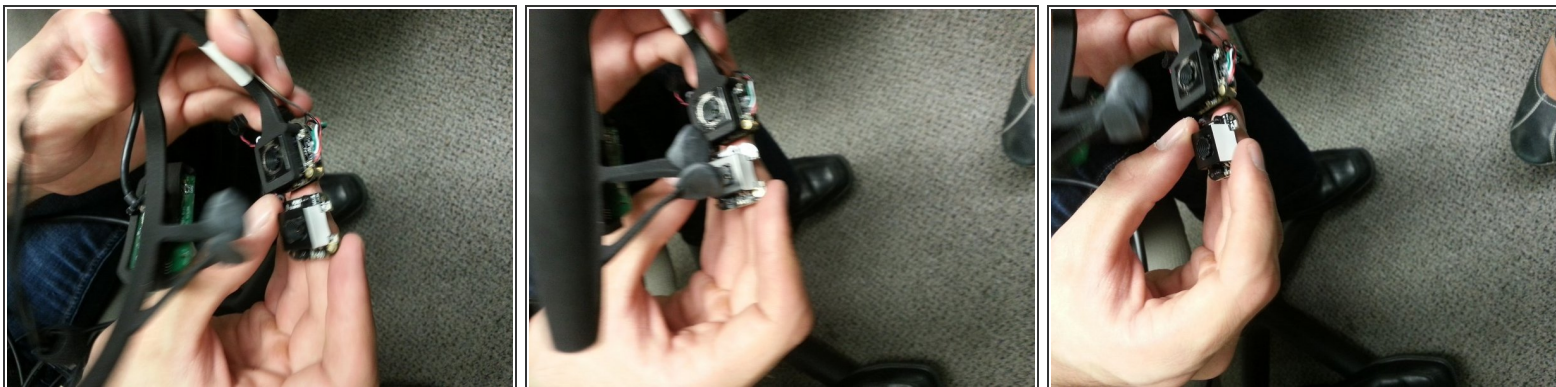
- Unscrew the lens

## Step 26



- Take out the IR filter by using a scalpel for pulling out the lens tape.

## Step 27



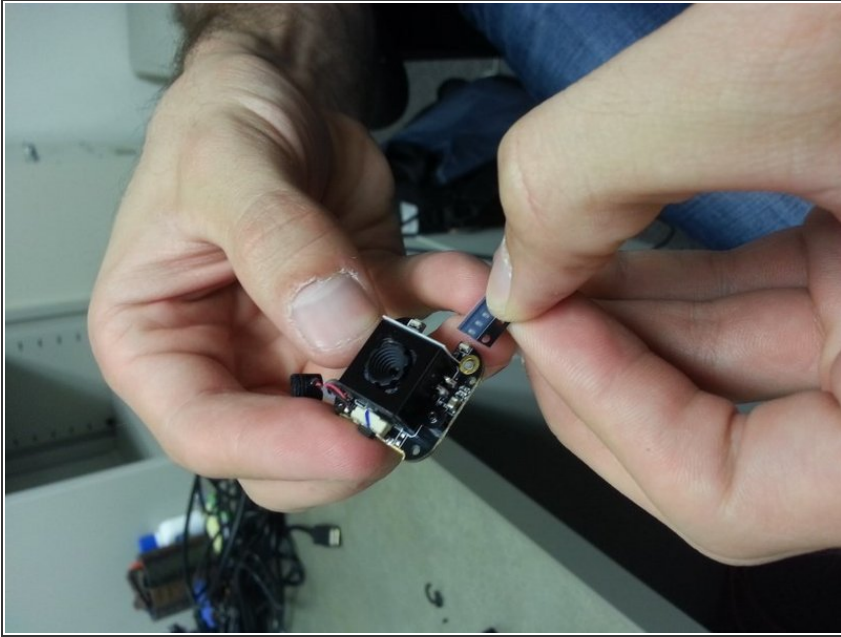
- Comparison photos of completed autofocus assembly vs in-progress autofocus assembly

## Step 28



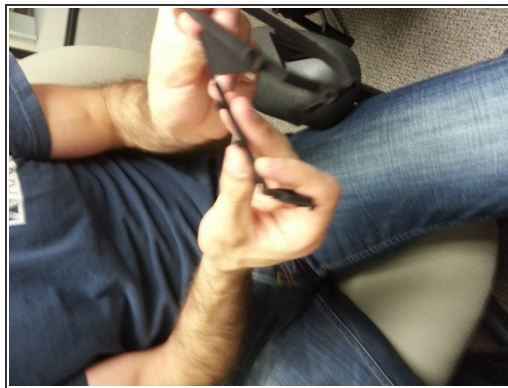
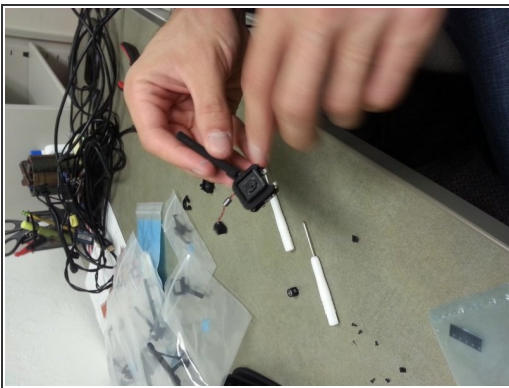
- IR LEDs replaced by SMD LED
- Soldering required here (at bottom of LED to remove).

## Step 29



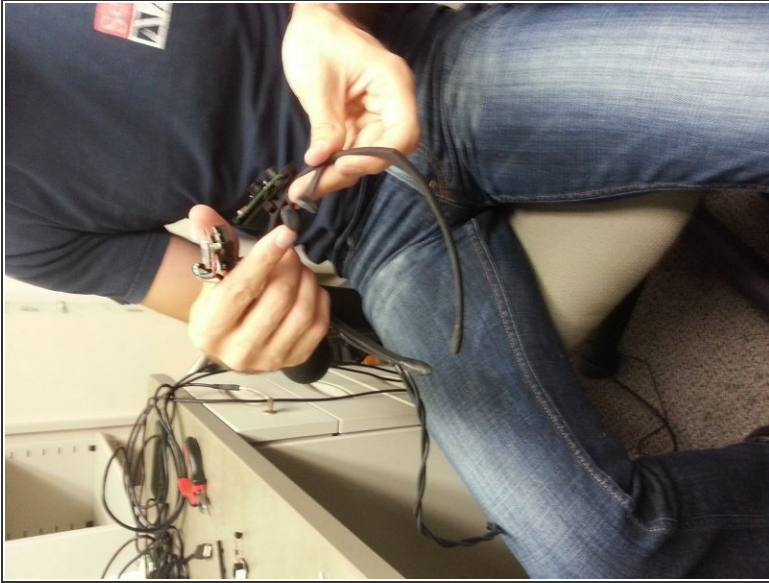
- SMD LED info: Thick black line is near the positive side of the LED
- Dark side (dot) is positive side on LED.

## Step 30



- Insert PCB into 3d-printed frame.

## Step 31



- Completed assembly.
- Sugru used for nose/head rest

To reassemble your device, follow these instructions in reverse order.