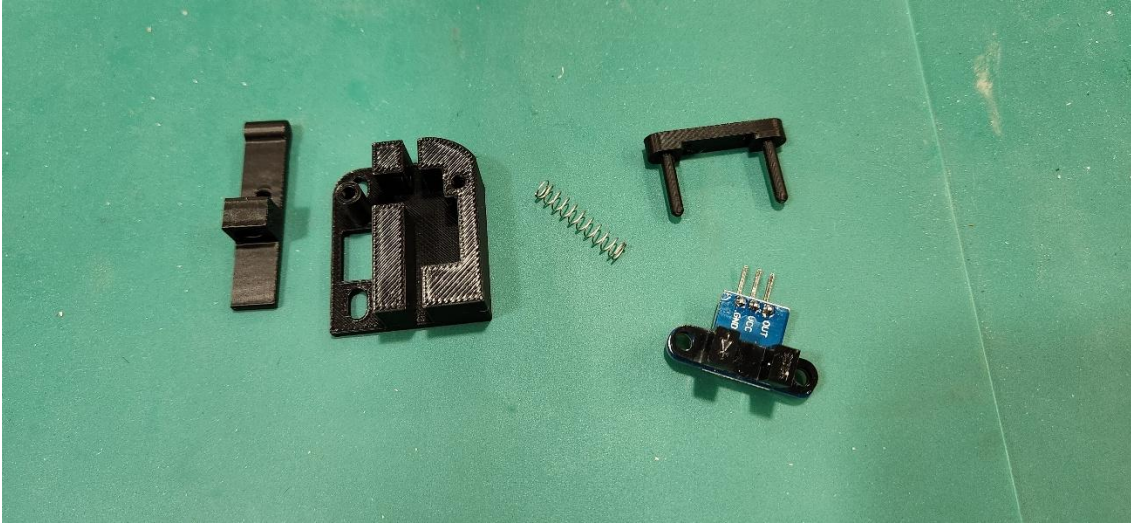# CS7.2 Homing Sensor Assembly Guide

The optical homing sensor for CS7.2 has been greatly improved and simplified.

The following parts are what is needed for assembly and are available from the CS7.2 repository at:

https://github.com/sjseth/AI-Case-Sorter-CS7.2/blob/main/Models/Classifier/CS7.2%20Homing%20Sensor.stl

Additional components needed for this build are a spring and optical sensor.

- 304 Stainless .3 x 4 x 20mm Compression Spring
  amazon at: https://www.amazon.com/Cilky-Compressed-Stainless-Diameter-Compression/dp/B0CVRZCPCM/ref=sr_1_1?s=industrial&sr=1-1
- IR Sensor Module
  https://www.amazon.com/EC-Buying-Optocoupler-Measuring-Interrupter/dp/B0CHDRF497/ref=sr_1_4_pp?s=industrial&sr=1-4

3D Printing Recommendations

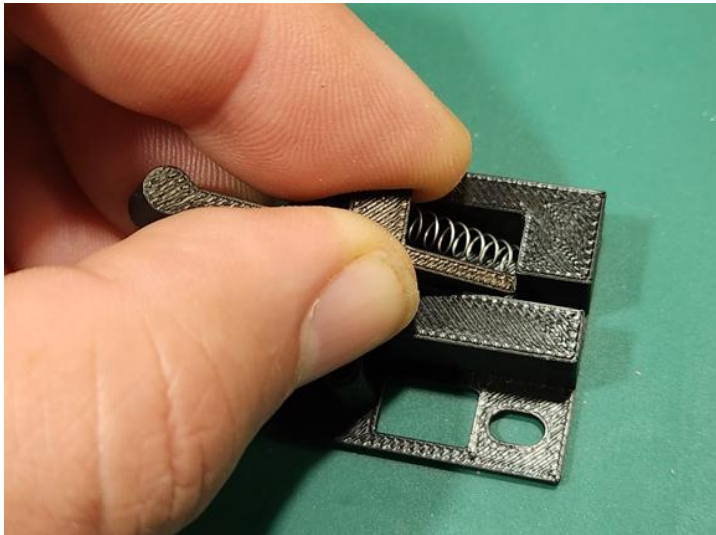**Layer Height:** 0.16
Walls: 3
Color: Piston should be black (other colors may not interrupt properly
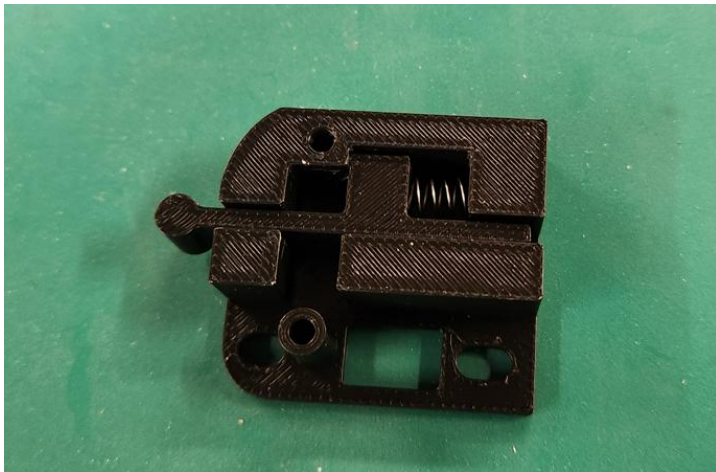**Infill:** 20%

Assembly Steps

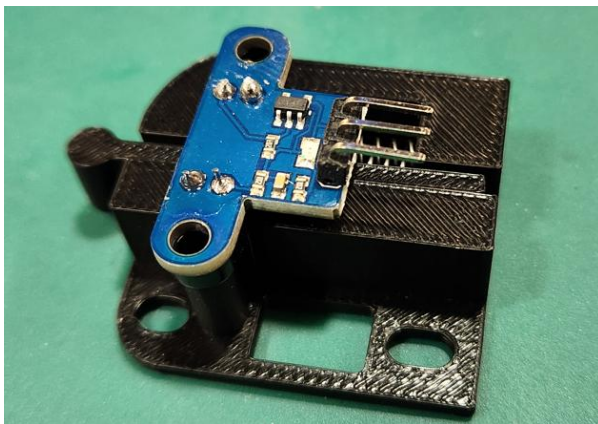1. Insert spring into piston spring retention hole and hold in place with finger.

2. Insert piston and spring into homing sensor body guiding spring into retention hole in the body
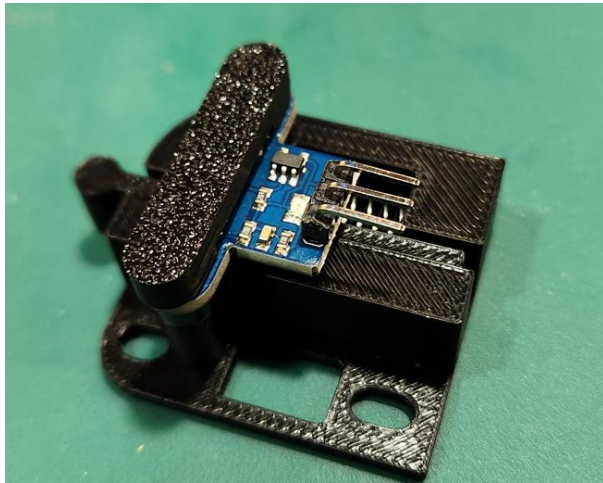

It should look like this when completed.

3. Slide sensor into place and seat all the way against the body of the part.

4. Guide retention clip through sensor mount holes and press firmly to seat against the body of the sensor.

5. When you attach the wire, it should be connected in the following wire pattern where (Black) Ground is on the left, (Red) 5v+ is center and (Signal) white is on the right