

Hello,

We are preparing to build the OpenFlexure Microscope v7.0.0-beta5 (Low-Cost Version), and we need to confirm tool availability and printing materials at the Fablab.

Below is the complete list:

### **Required Tools**

- 1 Posidrive screwdriver (PZ1)
- 2.5 mm ball-end Allen key
- Extra M3 nut (for holding screws)
- Extra M3×10 cap screw (for pulling trapped nuts)
- Precision side cutters
- Utility knife (standard cutter)
- Pi Camera lens removal tool (or printed alternative)
- Working FDM/FFF 3D printer (PLA compatible)

### **Printing Material Requirements**

1. PLA filament ~400 g total
  - ~380 g any colour
  - ~20 g black PLA for optics
2. 0.5 mm polypropylene sheet (4–10 cm<sup>2</sup>)
3. A few drops of machine oil for lubrication

### **Mechanical Hardware**

- 3 × M3 brass nuts
- 21 × M3 nuts
- 17 × M3×10 cap screws
- 8 × M3 washers
- 4 × M3×25 hex bolts
- 20 × No.2 6.5 mm self-tapping screws
- 3 × Viton O-rings (30 mm × 2 mm)

## Electronics

- Raspberry Pi 4
- Raspberry Pi Camera v2
- 200 mm ribbon cable
- Micro-SD card
- Power supply
- Sangaboard v0.5
- $3 \times$  28BYJ-48 stepper motors
- Illumination PCB or LED workaround
- DuPont connectors & jumper wires

Please confirm which of these tools and materials are available in the FabLab. Once confirmed, we will begin printing and assembly.

Thank you!