

CS7.2 Camera Assembly Guide

Printing the parts

The models for the 3d printed parts for the camera are available in the “Camera” folder in the GitHub CS7.2 repo.

<https://github.com/sjseth/Al-Case-Sorter-CS7.2/tree/main/Models/Camera>

From this folder, you need to print both the housing and light diffuser models.

- CS7.2 Camera Housing
- CS7.2 Camera Light Diffuser

The camera housing should be printed using a non-brittle filament such as PLA+ and needs to be black in color.

Recommended settings for Camera Housing:

Layer height: .2 or finer (.16 recommended)

Filament: PLA+

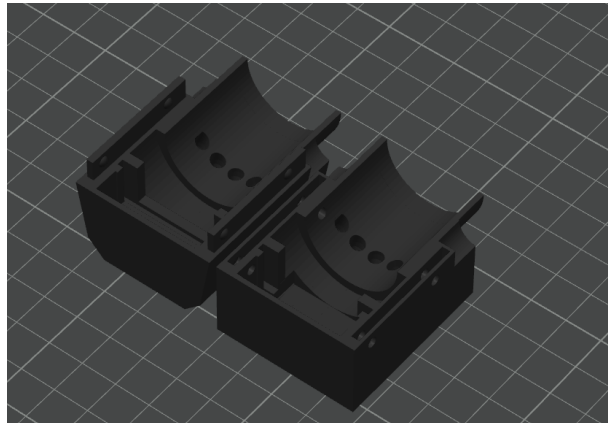
Black

Supports: Touching build plate

Angle: 3 degrees (Bambu/Orca) (or 87 degrees

Infill: 15%

Orientation: see image →



Color:

Support
for Cura)

Walls: 3

Settings for Light Diffuser:

Layer height: .2 or finer (.16 recommended)

Filament: Jayo PLA+ (or other non-opaque white filament)

Color: White

Supports: None

Infill: 0 (no infill is very important for this model)

Walls: 2

Light Ring Assembly.

Depending on how the light ring was purchased, there may be additional assembly required here. If your light ring is already assembled, you can skip this section.

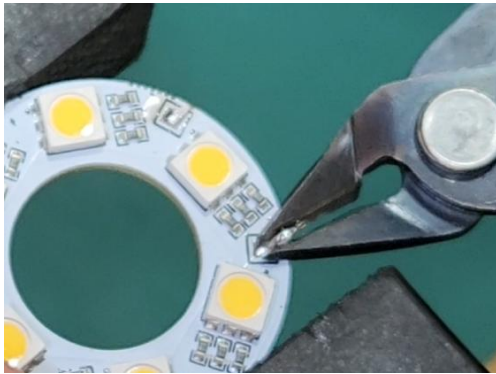
The light ring needs to have a 26AWG wire soldered to it with a length of approximately 60cm or 2ft.

The ring has two solder points labeled plus “+” and minus “-“ where plus is the positive current from your dimmer (typically red or yellow wire) and minus is the ground connector (typically black wire).

1. Strip approximately 8mm of shield from the 26AWG wire pair (recommend red/black pair)
2. Twist the stripped ends to avoid fraying.
3. Feed the wires through the appropriate holes bottom of the light ring and solder at the top (the top is the side with the lights on it)



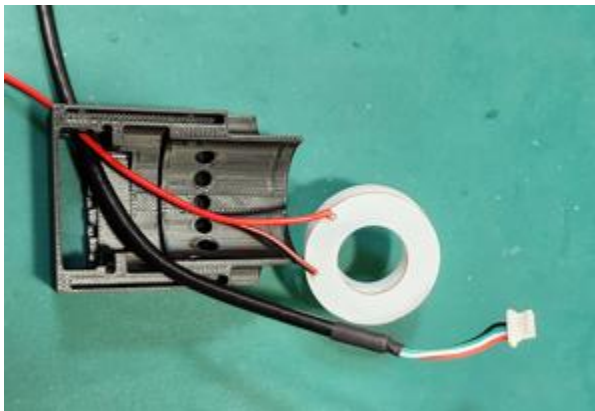
4. After soldering, clip any excess wire so that the diffuser will sit flat.



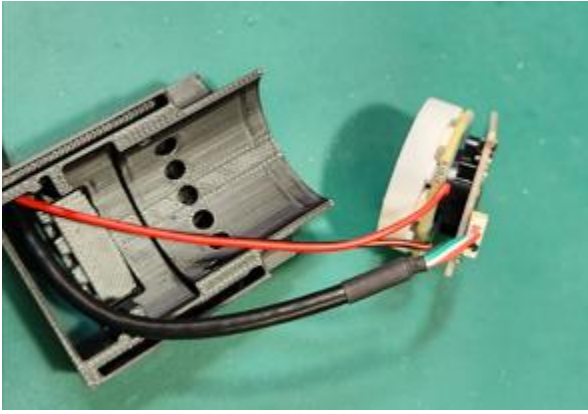
5. (Optional) Hot glue the diffuser to the light ring. This can easily be done by adding a small amount of hot glue in between one of the lights and pressing and holding the diffuser ring until the glue dries.

Camera Assembly Steps

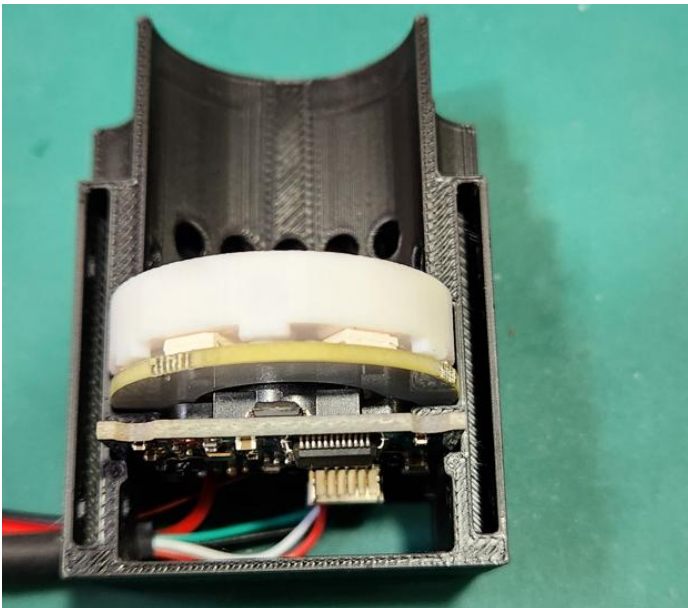
1. Locate the camera housing part which has a hole in the side for wiring. Pass both the wire for the usb connector and the light ring through the whole as seen in the picture below:



2. Connect the 5pin mini connector to the camera and place the light ring over the camera lens.



3. Slide the camera and light ring together down into the slots in the camera housing being sure not to pinch wires or touch the camera lens. The orientation of the wiring should be facing down towards the fan inlet slot.



4. Carefully attach the top housing being sure that all slots are aligned and press fit firmly together until the clamshell parts snap in place.
5. Attach the blower fan so that the air guy (tuyer) is aligned with the air intake slot. See picture below:



6. The fan should be attached using two m2x10 and two m2x8 socket head screws. The longer screws are needed on the side which has the air guide.
7. (optional) Use heatshrink tubing or cable organizers to combine the fan and light wires as desired. Use zip ties to connect wires for additional strength.



8. Install ferrules on fan and light ring wire to make it easier to connect to the push terminals on the 7.2 board. The ferrule size needed for 24-26AWG wiring is E0308.