Pi PIR Camera Box Assembly Instructions

The laser-cut parts of the case are protected by an adhesive film which needs to be removed before assembly.

Bill of Materials

- Raspberry Pi B+ / 2 / 3
- Raspberry Pi Camera
- 6x black matte acrylic plates
- 1x thin clear acrylic plates
- 7x 1/4" black screws
- 1x 3/16" steel screw
- 3x 1" M/F hex standoffs
- 4x 1/4" F/F hex standoffs
- 6x M2 x 10mm black screw
- 6x M2 nut
- 10x M2 washer
- 2x M5 Screw
- 2x M5 Nut
- 4x rubber feet

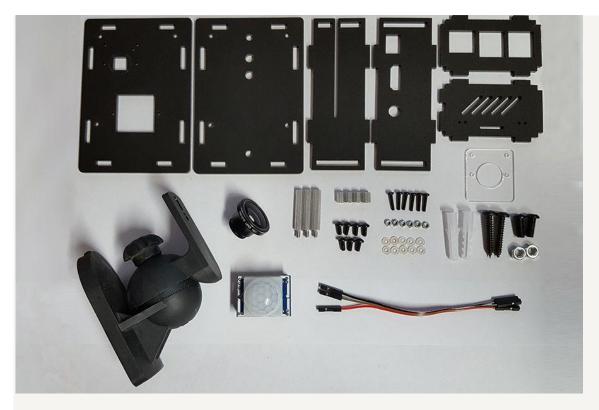
Optional for wall mounting:

- Wall mount
- 2x M5 screws
- 2x M5 nuts

Optional:

• Magnetic lens

NOTE: Acrylic is a hard and stiff plastic which is sensitive to stress concentrations and shares a certain level of fragility with glass. Acrylic can scratch easily and should be cleaned with a mild solution of dish detergent and warm water. Never use cleaners unsuitable for acrylic. Never use a dry, abrasive cloth. Here are the parts from the case kit:



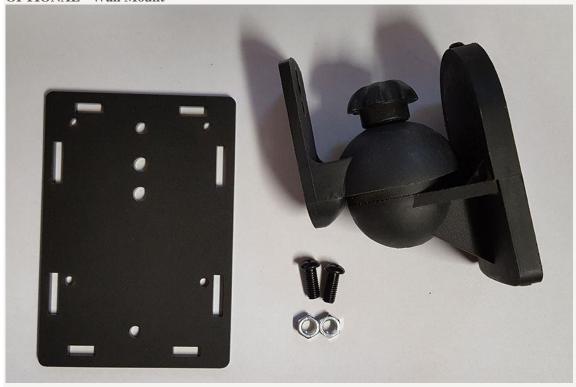
Follow these images checking parts and orientation of the acrylic pieces. You will see a before and after image for each step. Make sure you have all the parts ready, shown in the before picture.



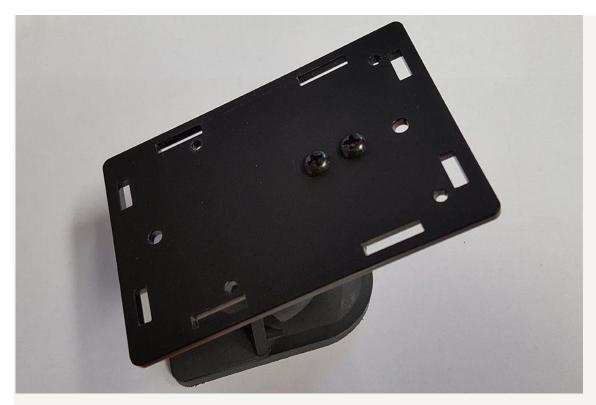
Orientate your Pi to match the above picture and secure the 1" M/F stand offs in the bottom-left, top-left and top-right corners using the 1/4" F/F stand offs.



OPTIONAL - Wall Mount



Attach the wall mounting bracket to the rear acrylic plate using the two M5 screws and nuts.





Now we need to attach the Pi to the rear plate using four 1/4" black screws.



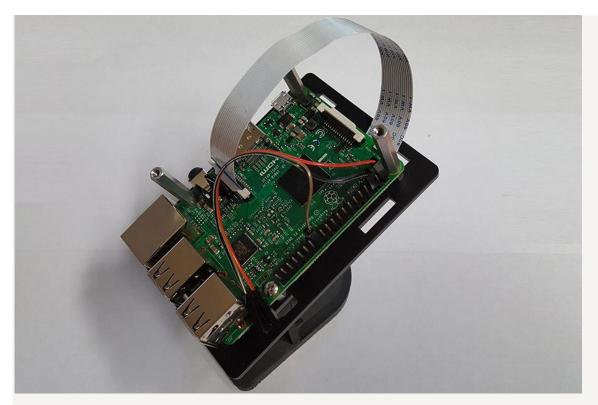


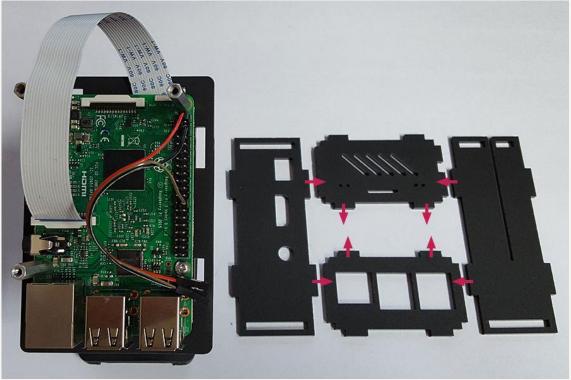
Attach the camera cable to your Pi.





Attach the three jumper wires to the Pi's GPIO pins (colours may vary). Attach a wire to pin Pin 2, another to Pin 6 and the last one to Pin 26.



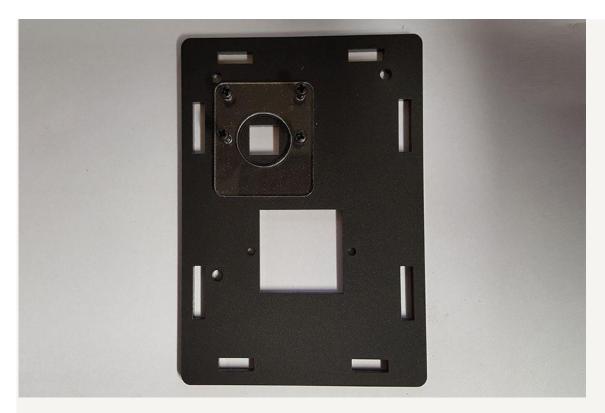


Next thing to do is attach the side acrylic plates. Make sure you have each of the 4 camera box walls in the correct orientation. The arrows indicate the knotches that will be inserted into the bottom plate.





Now we need to attach our camera modle to the front plate. Start by placing the thin clear acrylic plate into position and insert a $M2 \times 10$ mm screw into each corner mounting hole.



Carefully turn the plate over so the ends of the screws are now facing you. Place **TWO** M2 washers onto each of the screws.

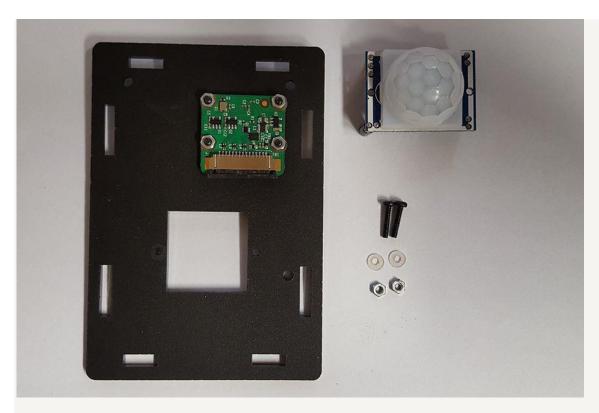


Add the camera module



And finally secure in place using the M2 nuts.





Now we are going to attach the PIR module. Start by inserting the M2 x 10mm screws into each mounting hole from the underside.



Add just one washer to each screw.



Add the PIR module.



Secure in place using the M2 nuts.





Time to attach our camera cable and jumper wires. With the 3 pins of the PIR module facing you, attach the jumper wires in this order:

JUMPER WIRE - PIR MODULE Pin 2 - LEFT

Pin 6 - RIGHT Pin 26 - MIDDLE



Finally secure the top plate into position using the 1/4" black screws.



OPTIONAL - Camera Lens

In the little lens box, you will find a magnetic metal ring. Peel off the blue protective film, peel off the self-adhesive backing and stick the metal ring to the front of the case around the camera lens. Be sure to press it on nice an firm so you get a good fit.



Now simply place the lens onto the magnetic ring!



For information on how to setup your PIR sensor, follow our simple tutorial here.