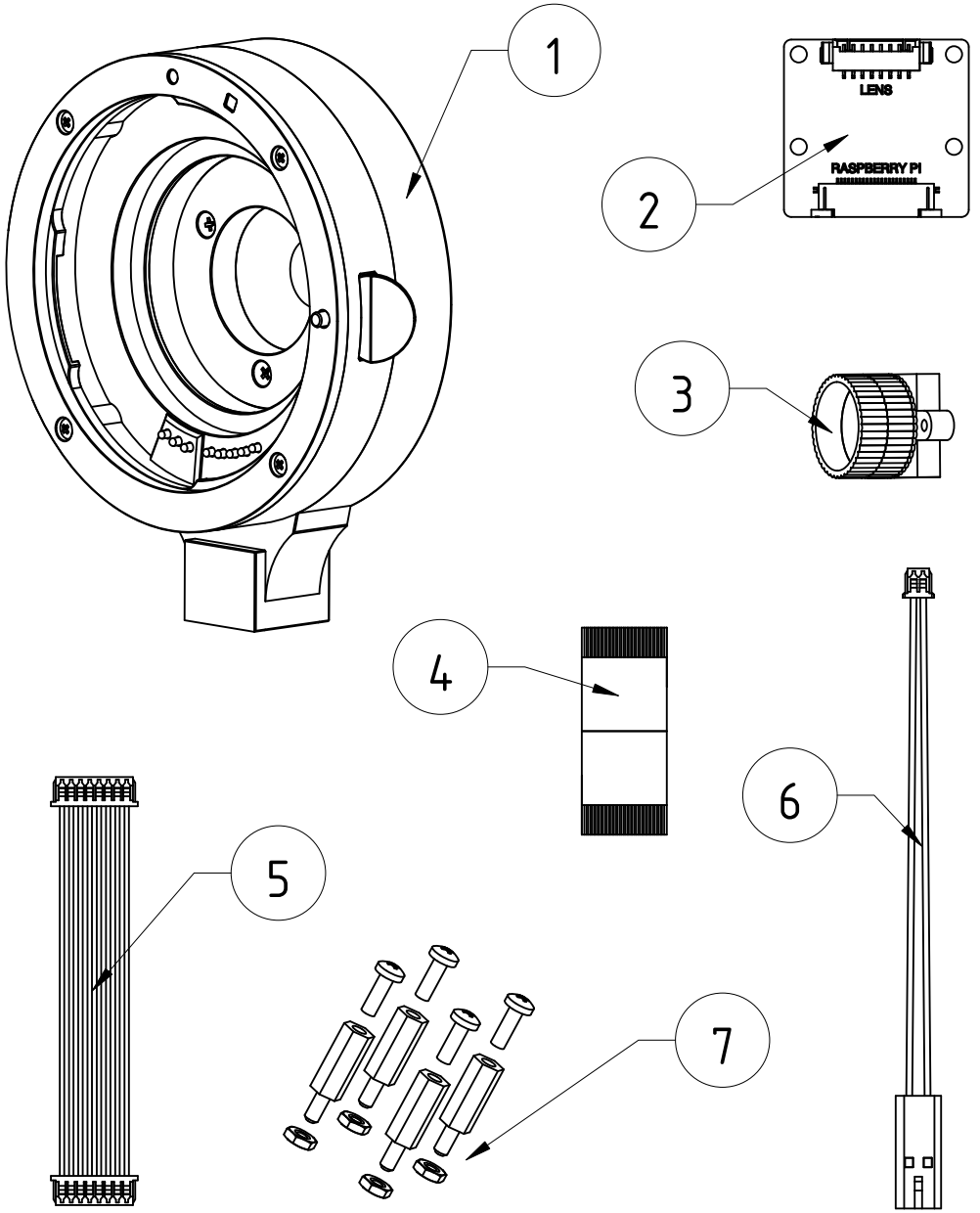
Package Contents

1) The adapter
2) The lens control board
3) M12 lens holder
4) Flex camera cable
5) 8-wire lens cable
6) 2-wire power cable
7) Accessory kit: standoffs, screws, and nuts

You will also need (not Included in the Package)

- Canon EF or EF-S lens
- Raspberry Pi computer and related accessories
- Arducam IMX708 Camera Module with M12 Mount (SKU **B0310**)
- Camera cable that matches Raspberry Pi version
- Tripod, stand, lens ring or other compatible mount
- Small Phillips screwdriver
- Optional 4-wire serial cable

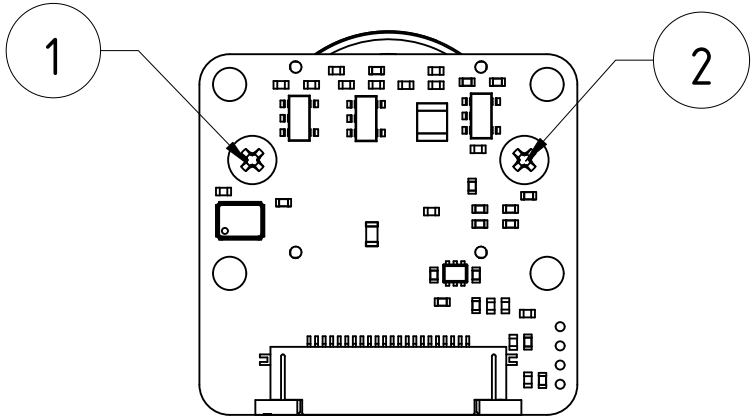


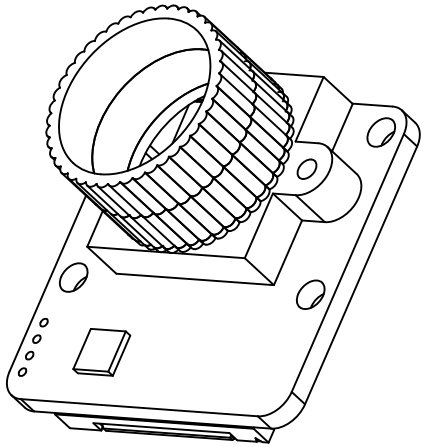
1. Replace M12 lens holder

The original M12 lens holder of the Arducam IMX708 camera module is too short to form a 44 mm distance to the image sensor required for Canon EF/EF-S lenses.
Replace the original M12 lens holder with the provided 12 mm holder to achieve the correct spacing.

1) Unscrew the two screws on the back of the camera module. Detach the original holder with the glued M12 lens.

2) Attach the provided 12 mm holder in place of the original. Reinsert and tighten the two screws.



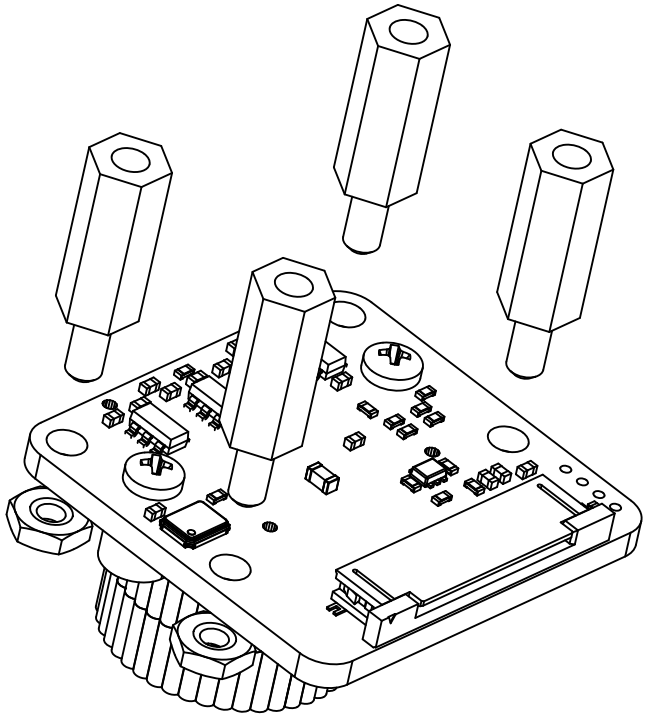


2. Install PCB Standoffs

1) Insert the four PCB standoffs into the mounting holes of the Arducam IMX708 Camera Module.

2) Secure each standoff with a nut on the underside of the board.

3) Tighten the nuts firmly but avoid over-tightening.



3. Connect the Flex Cable

Use the short flex cable included with the control board.

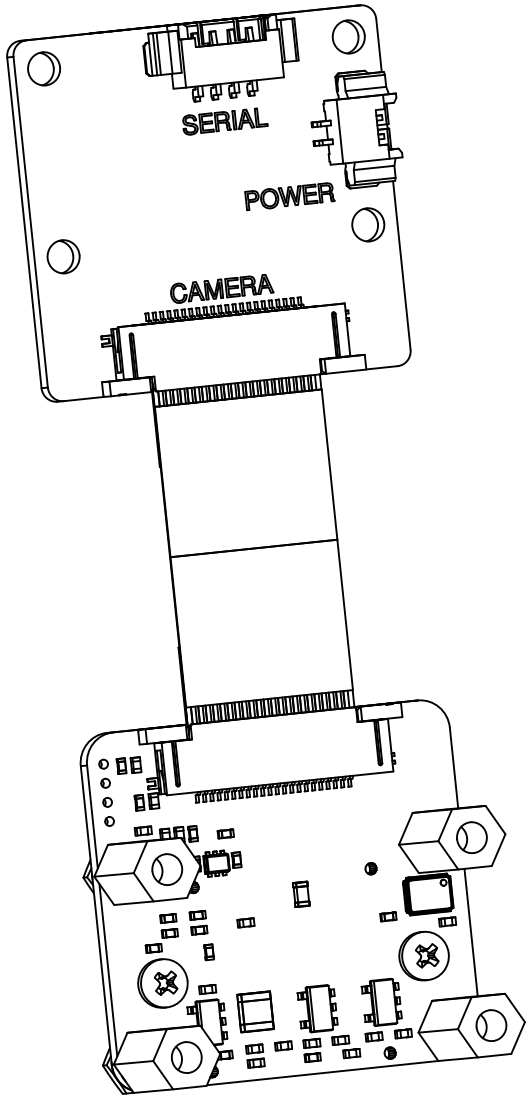
1) Lift the connector latch on the Arducam IMX708 Camera Module.

2) Insert the flex cable with silver contacts facing up and blue stiffener facing down until fully seated.

3) Push the connector latch down to secure the cable.

4) Repeat the same process, inserting the other end of the cable into the connector labeled **CAMERA** on the lens control board, ensuring proper orientation.

Handle the cable carefully to avoid sharp bends.



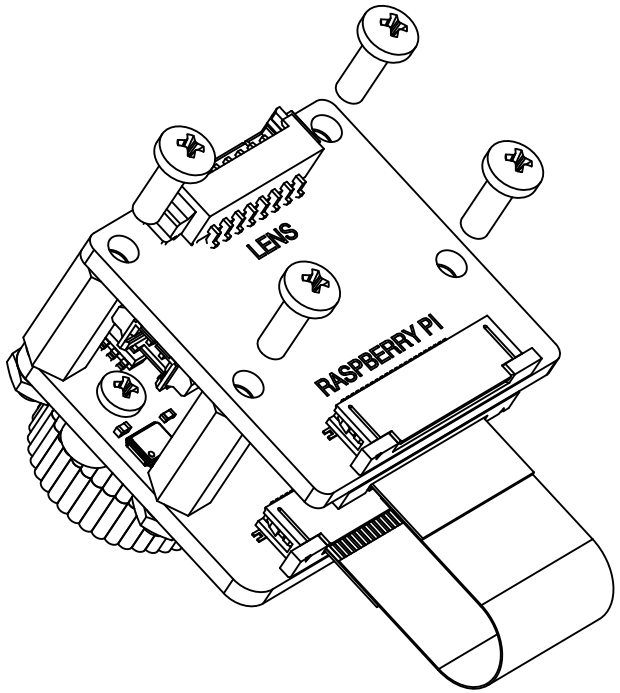
4. Stack the Boards

1) Carefully bend the flex cable to bring the two boards together.

2) Position the lens control board directly on top of the Arducam IMX708 Camera Module.

3) Ensure the cable forms a smooth curve without sharp bends or twists.

4) Secure the boards by inserting 4 screws through the lens control board into the standoffs on the camera board. Tighten the screws firmly.

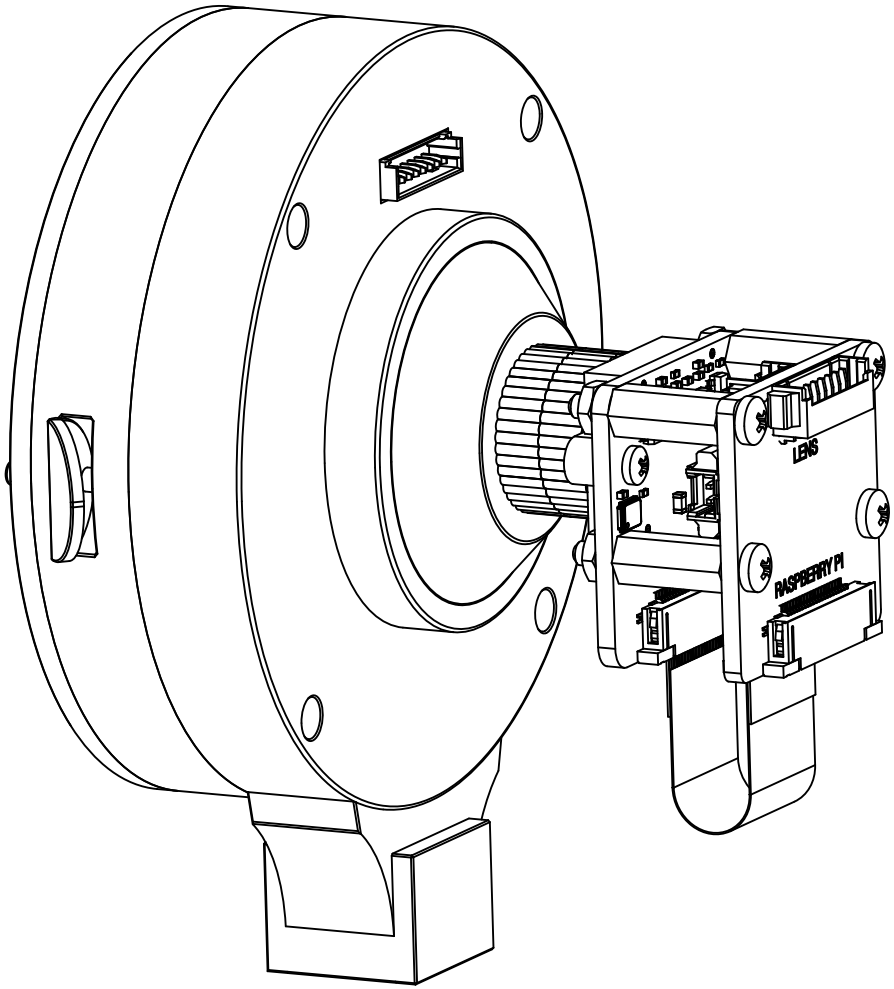


5. Mount the adapter

2) Carefully screw the M12 lens holder of the camera module onto the protruding M12 thread of the adapter by rotating it **clockwise** until fully seated.

Do not overtighten. The thread has a fine 0.5 mm pitch and is delicate. Turn gently, ensuring the threads engage smoothly to avoid cross-threading or damage.

The 8-pin connectors on the adapter and the lens control board should form a nearly straight line. If they do not align perfectly due to variations in thread angles, make the necessary adjustments in the next step.



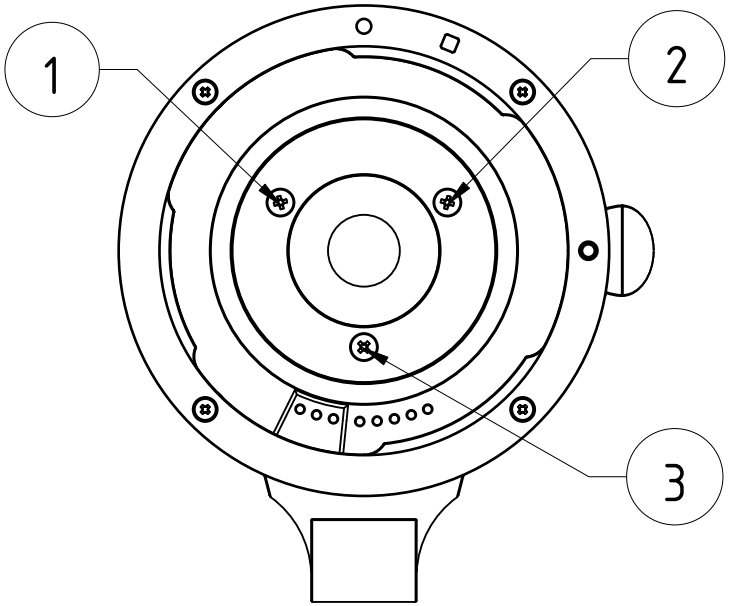
6. Align the 8-pin connectors

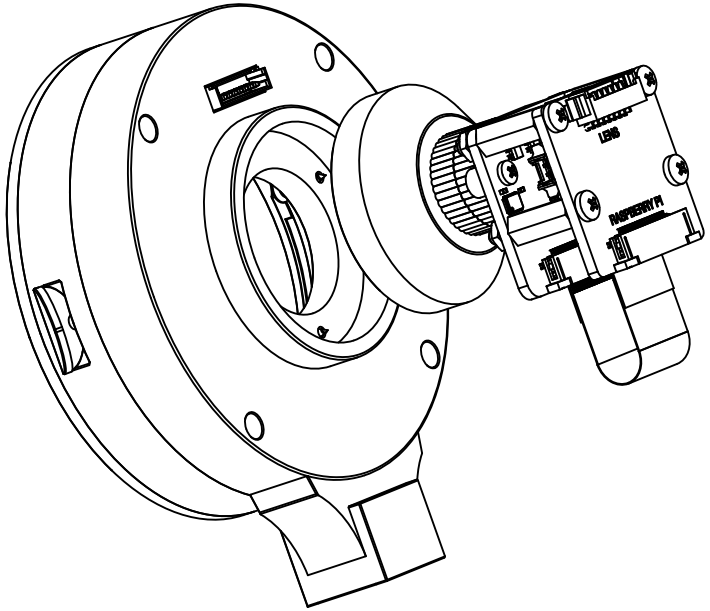
1) Loosen the three screws in the middle of the adapter. Detach the round fastener along with the stacked boards from the housing.

2) Do not remove the screws completely; leave their tips slightly protruding from the back of the housing.

3) Align the 8-pin connectors on the adapter and the lens control board so they form a nearly straight line. Then, reattach the round fastener to the adapter, rotating it slightly to help the screw tips find the nearest holes.

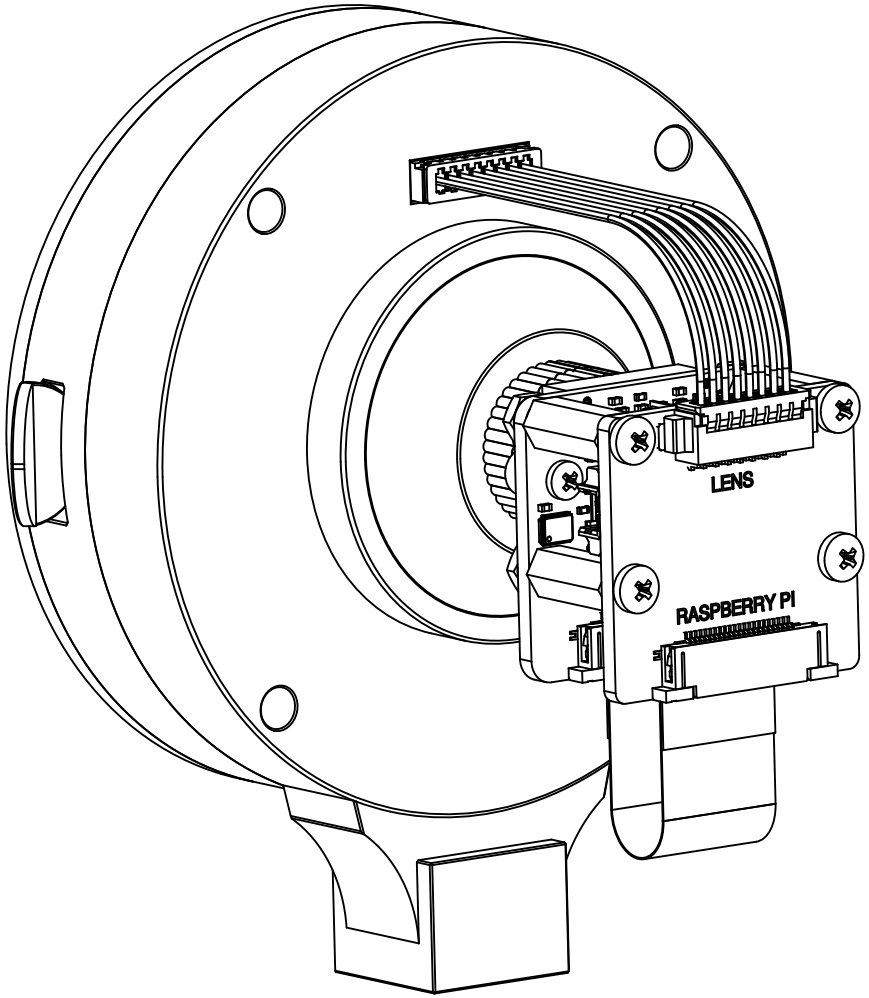
4) Tighten the screws securely, ensuring there is no gap between the round fastener and the housing.





7. Connect the Lens Cable

Use the short 8-wire cable included with the adapter to connect the adapter to the **lens** connector on the control board.



Note: For lightweight setups, use the **tripod mount** on the adapter to attach the assembled unit to a stable support, such as a tripod, stand, or other compatible mount, ensuring proper alignment and stability.

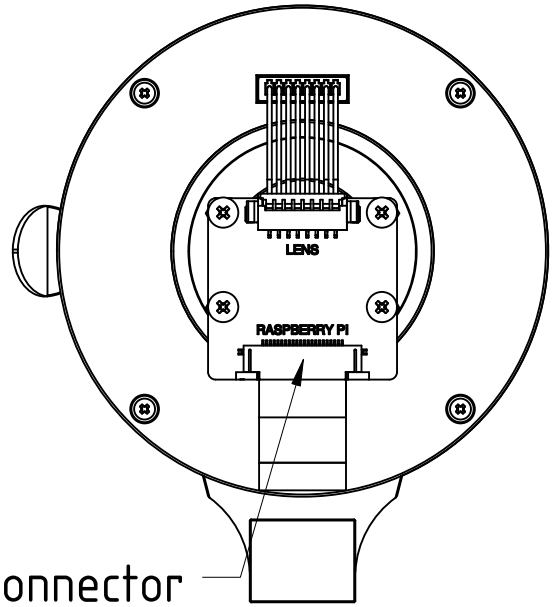
For heavy lenses, the built-in tripod mount may not provide sufficient support. Instead, use a **Tripod Mount Ring** to properly balance the weight and prevent strain on the adapter.

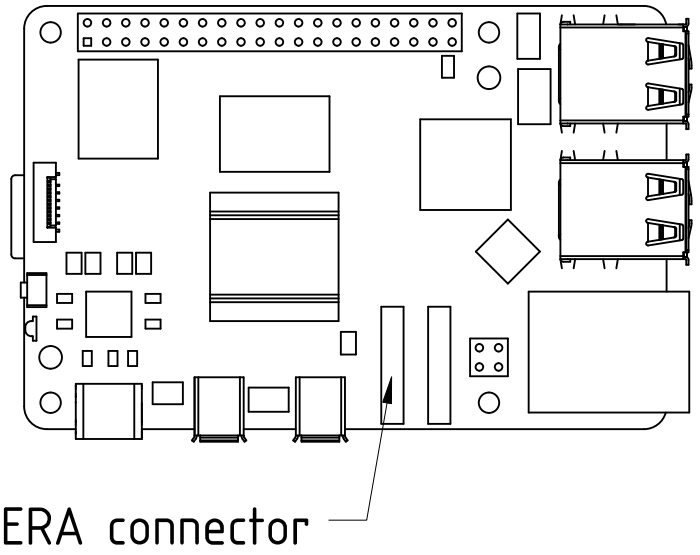
8. Connect the Flex cable

To avoid any potential damage, power off the Raspberry Pi and disconnect it from any power source.

The camera module is already connected to the control board with a short flex cable. Another flex cable, originally included with your camera module, is used to connect the controller to the Raspberry Pi. Insert one end of the cable into the connector labeled **RASPBERRY PI** on the control board, and the other end into the connector labeled **CAMERA** on the Raspberry Pi.

Metallic contacts orientation on both sides of the cable is the same as when connecting the camera module directly (without the control board) to the Raspberry Pi.

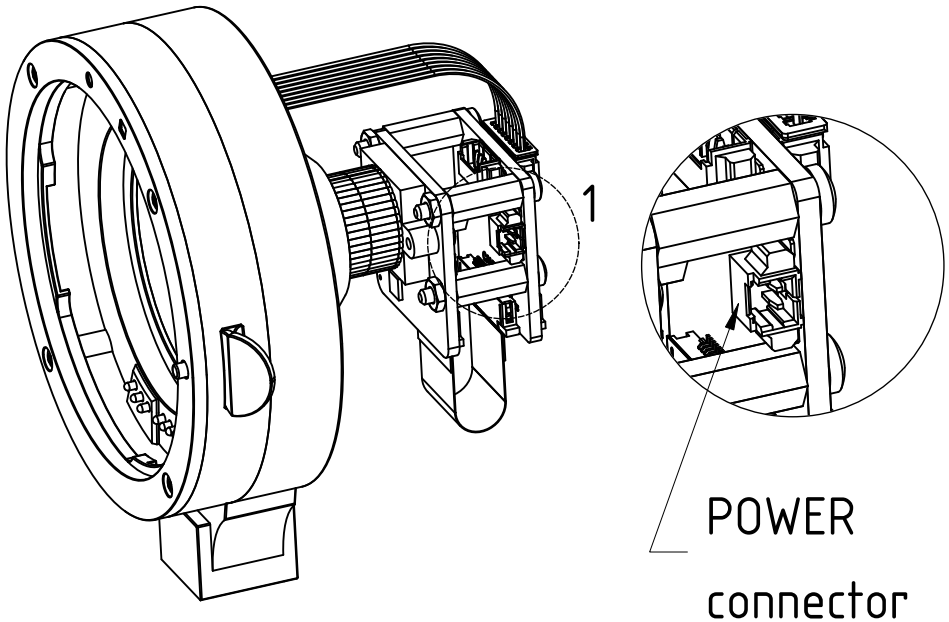


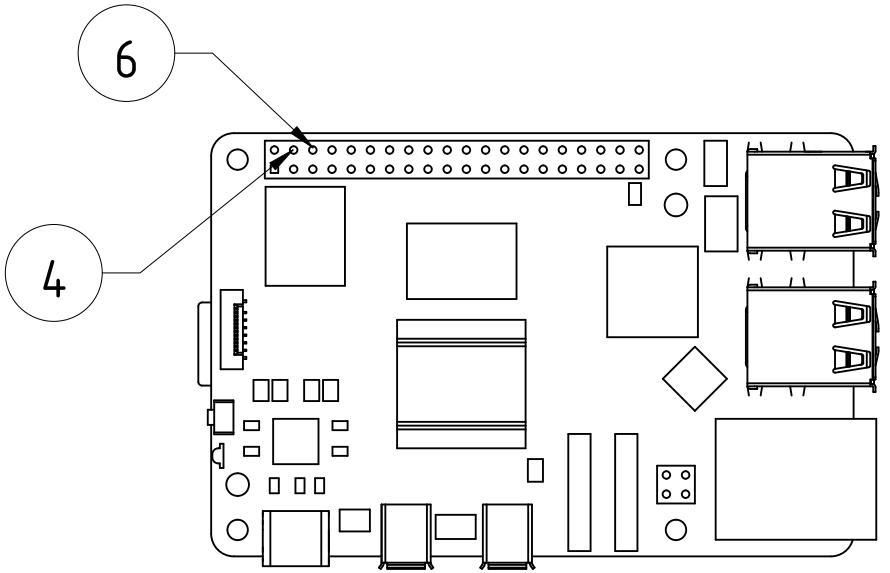


9. Connect the Power Cable

The control board has a 2-pin connector labeled **POWER**. A 2-wire power cable is supplied with the control board. Insert the cable header into the connector, then connect the loose wires to the Raspberry Pi's 40-pin GPIO header as follows:

Wire	Color	Pin in RPI 40-pin GPIO header
5V power	Red	4
Ground	Black	6





10. Connect the Serial Cable

A serial interface is **not required** for autofocus to function, therefore a 4-wire serial cable is not included with the control board but can be purchased separately.

If you need to control the lens via the serial interface, insert the cable header into the 4-pin connector labeled **SERIAL** on the control board. Then connect the loose wires to the Raspberry Pi's 40-pin GPIO header as follows:

Wire	Color	Pin in RPI 40-pin GPIO header
3V3 power	Red	1
TX	Yellow	8
RX	Green	10
Ground	Black	9