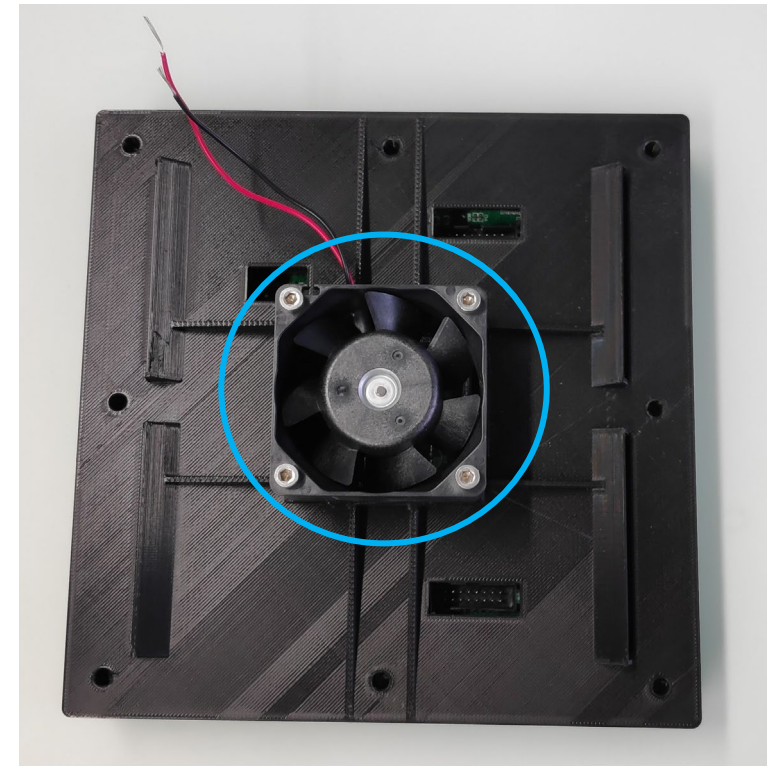
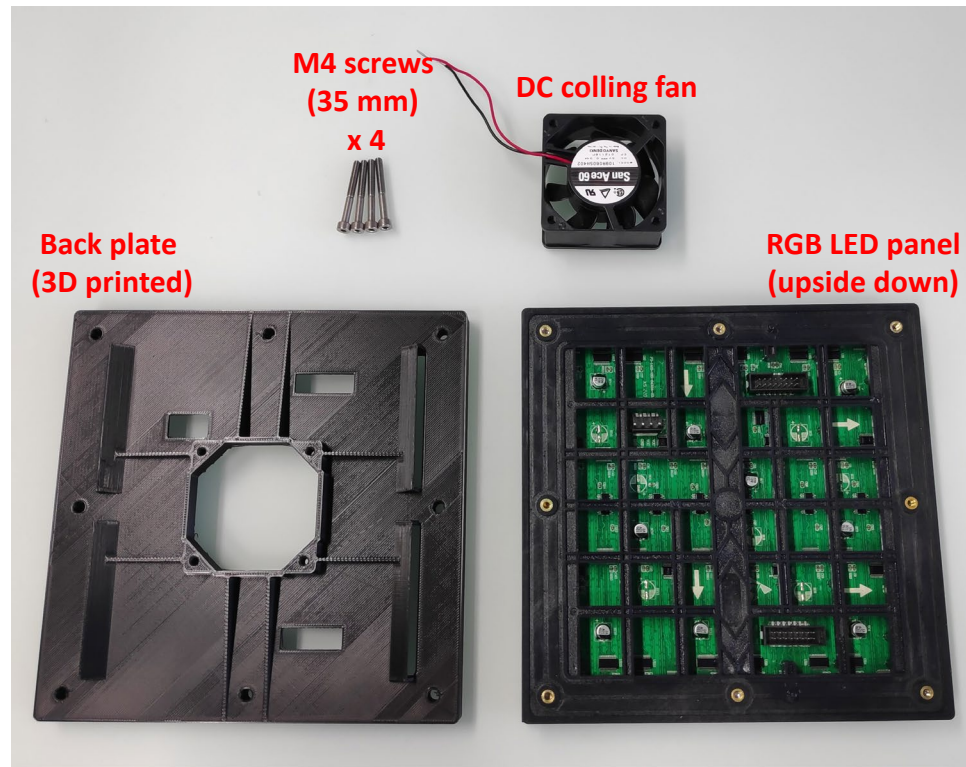


Step 0

- Acquire all parts (check parts list provided in the paper supplementary information) needed for assembling one Diya device
- Print the required 3D printed parts (check hardware > CAD_files folder)
- A set of screw drivers is needed in the assembly process

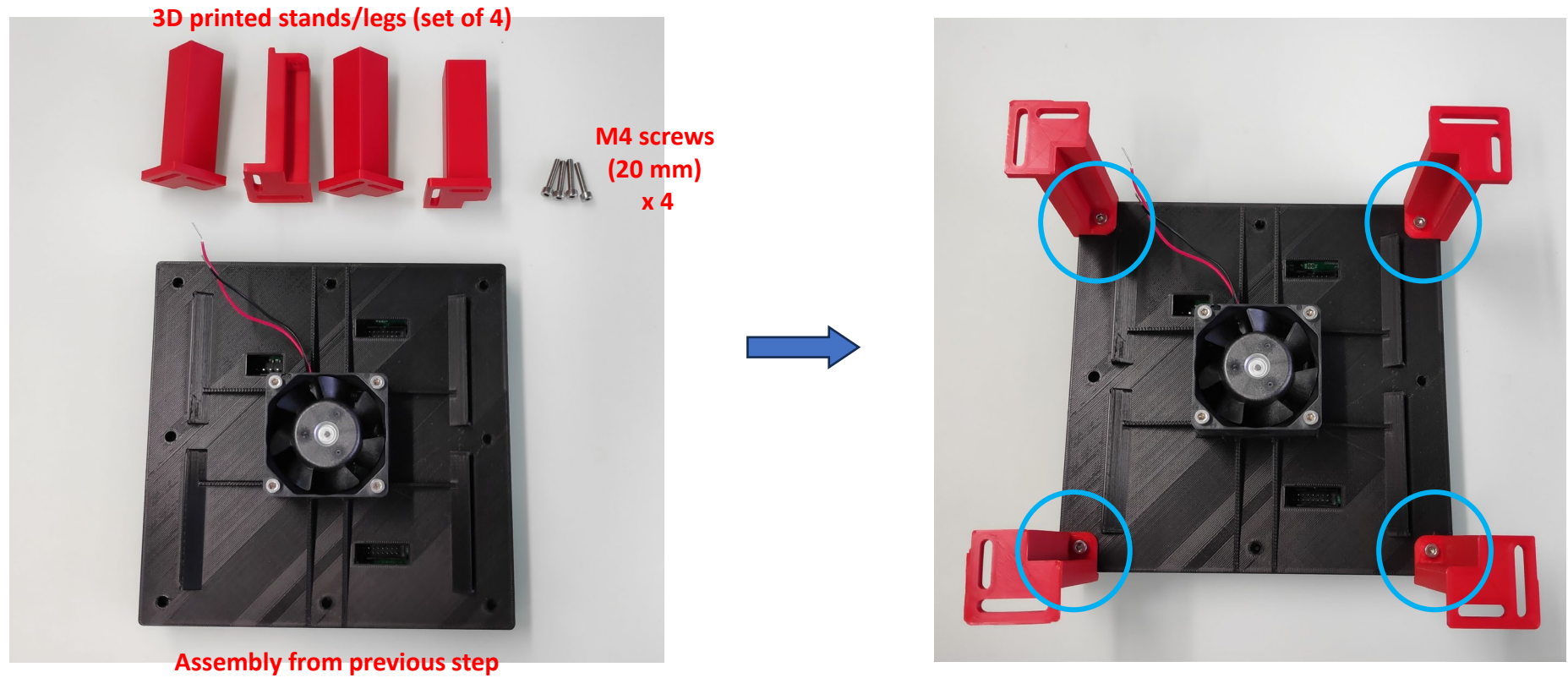
Step 1

- Attach the cooling fan to the back plate as shown here
- Place the back plate on the back of the RGB LED panel



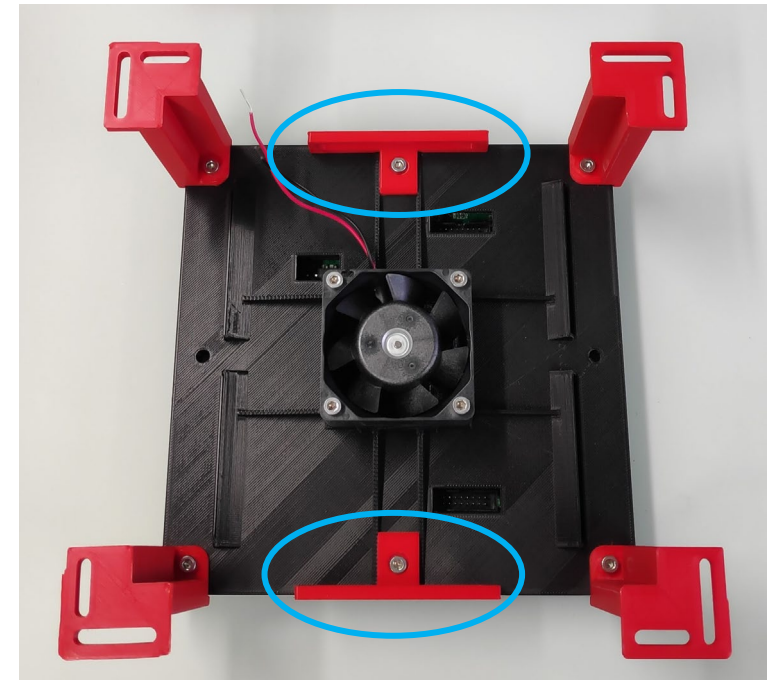
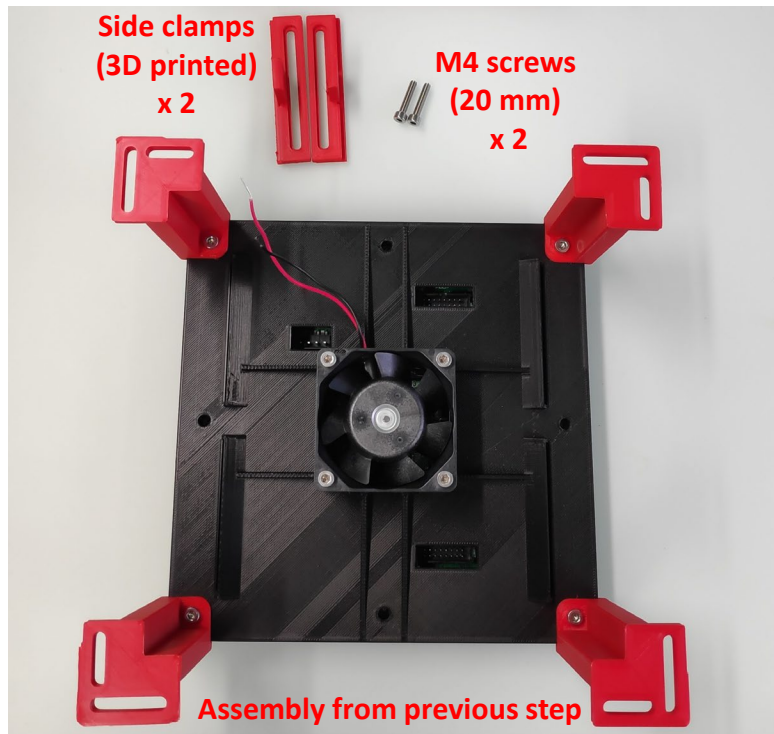
Step 2

- Attach 4 x 3D printed stands/legs to the assembly from previous step as shown here



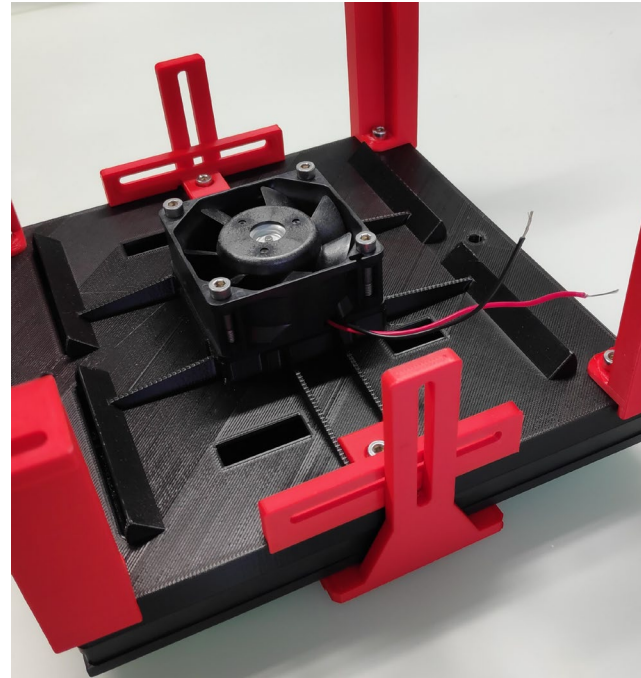
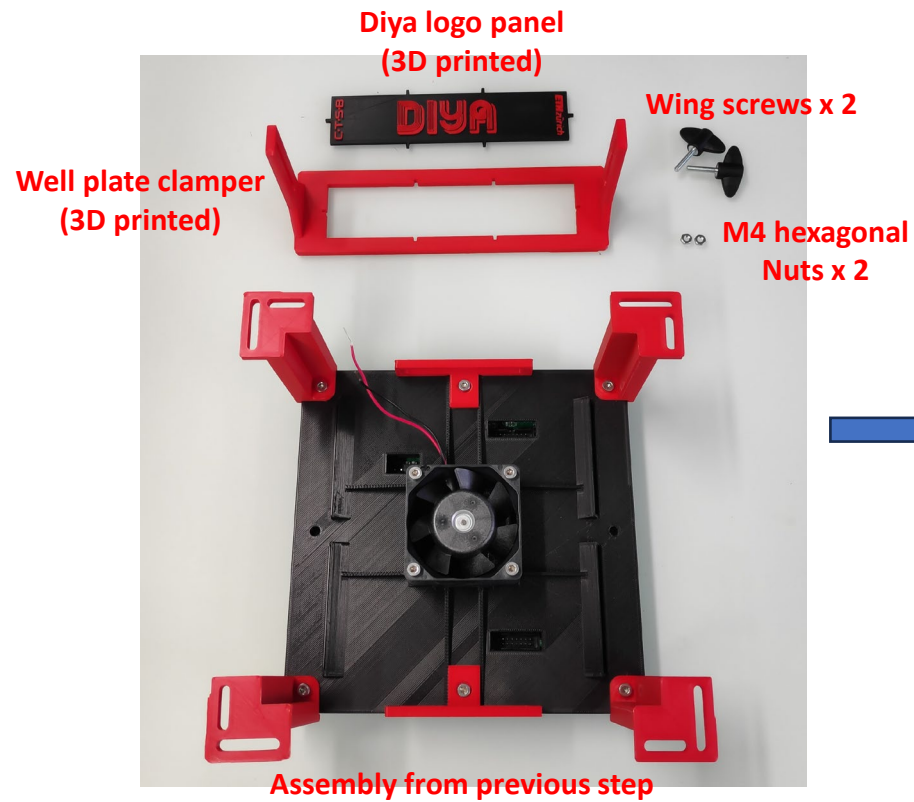
Step 3

- Attach 2 x 3D printed side clamps to the assembly from previous step as shown here

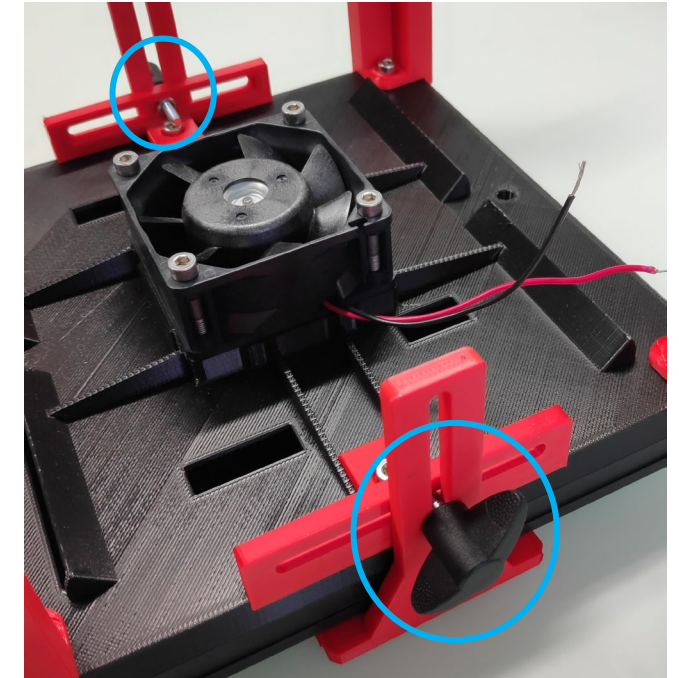


Step 4

- Attach well plate clumper to the assembly from previous step as shown here



Hexagonal nuts are
screwed onto wing screws
from the other side



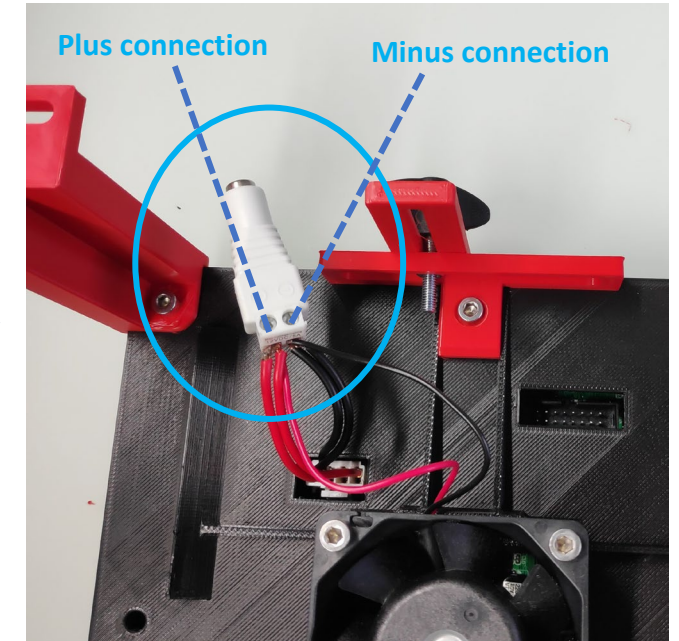
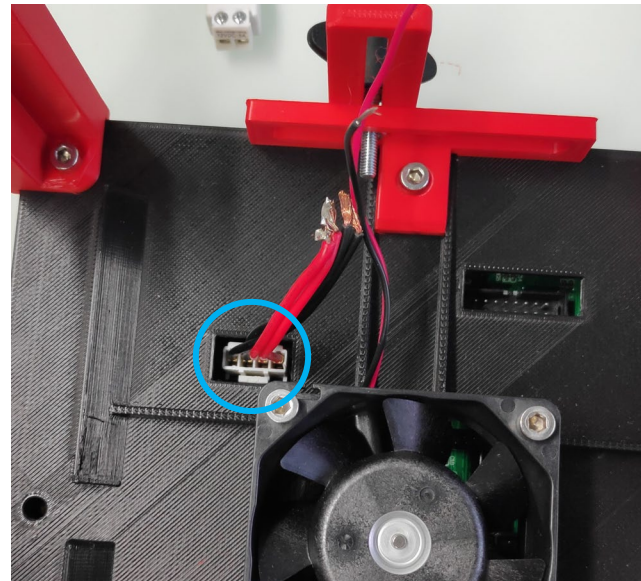
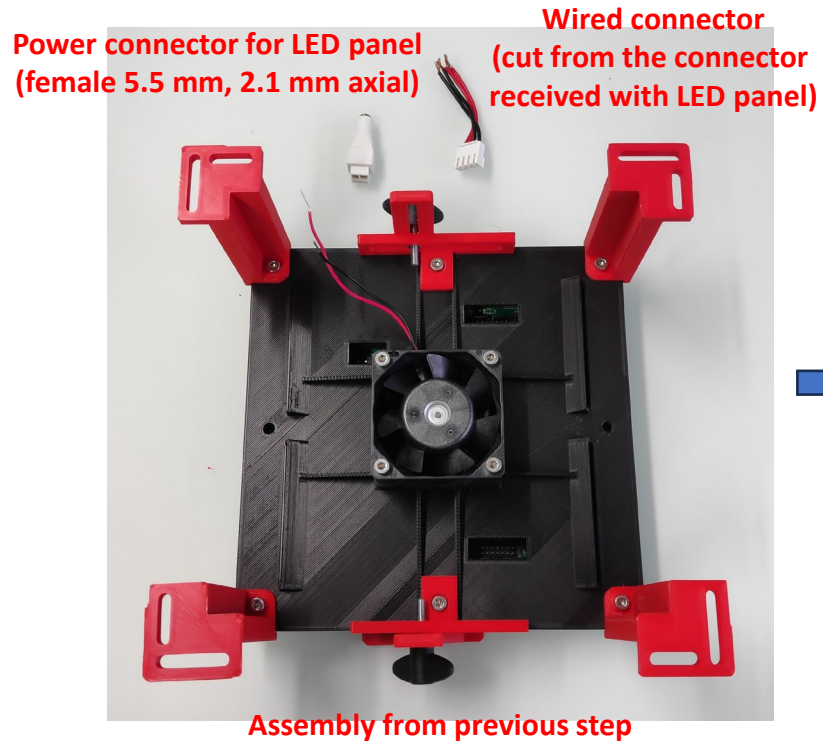
Step 5 (Optional)

- Attach Diya logo panel to the well plate clamped as shown here
- Glue can be used to firmly attach the logo panel in place



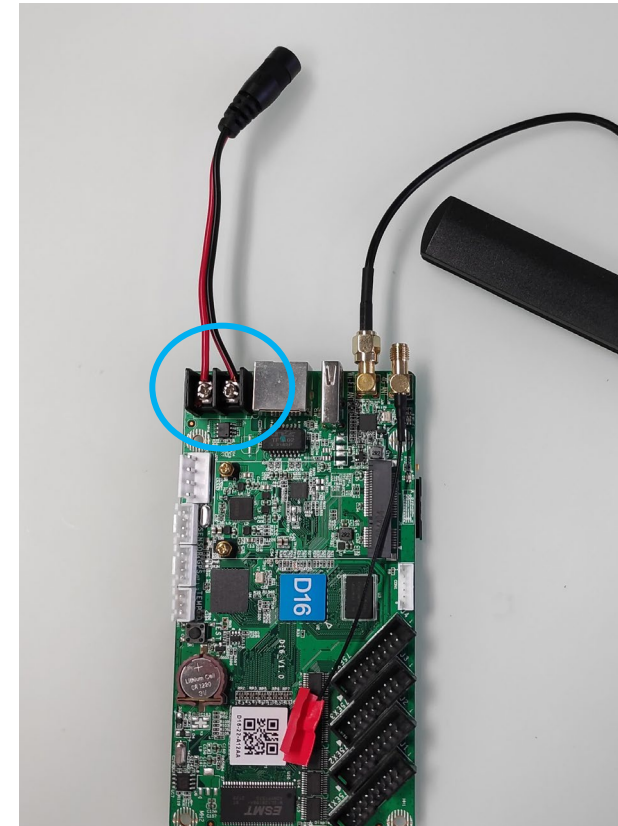
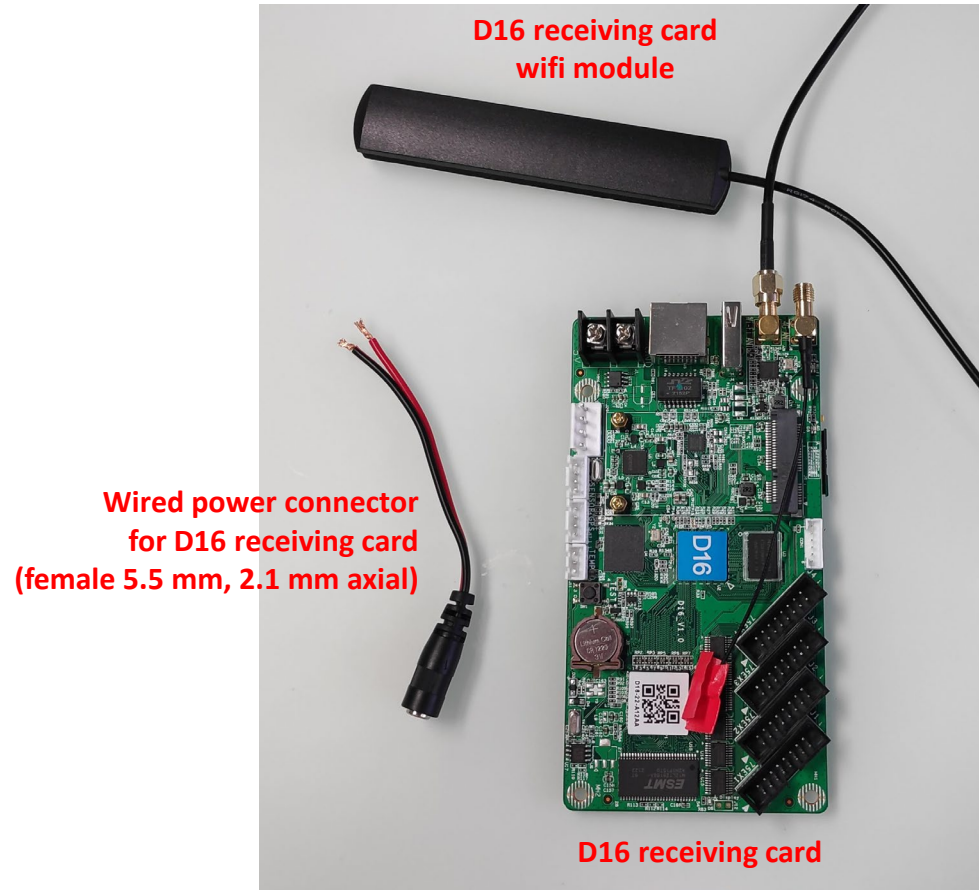
Step 6

- Cut the wired connector received with the LED panel as shown here
- Attach this wired connector into the slot on the back side of the LED panel
- Attach the below mentioned power connector to wires from the wired connector as well as the cooling fan (Red wires should be bundled together and attached to the plus connection; black wires should be bundled together and attached to the minus connection)



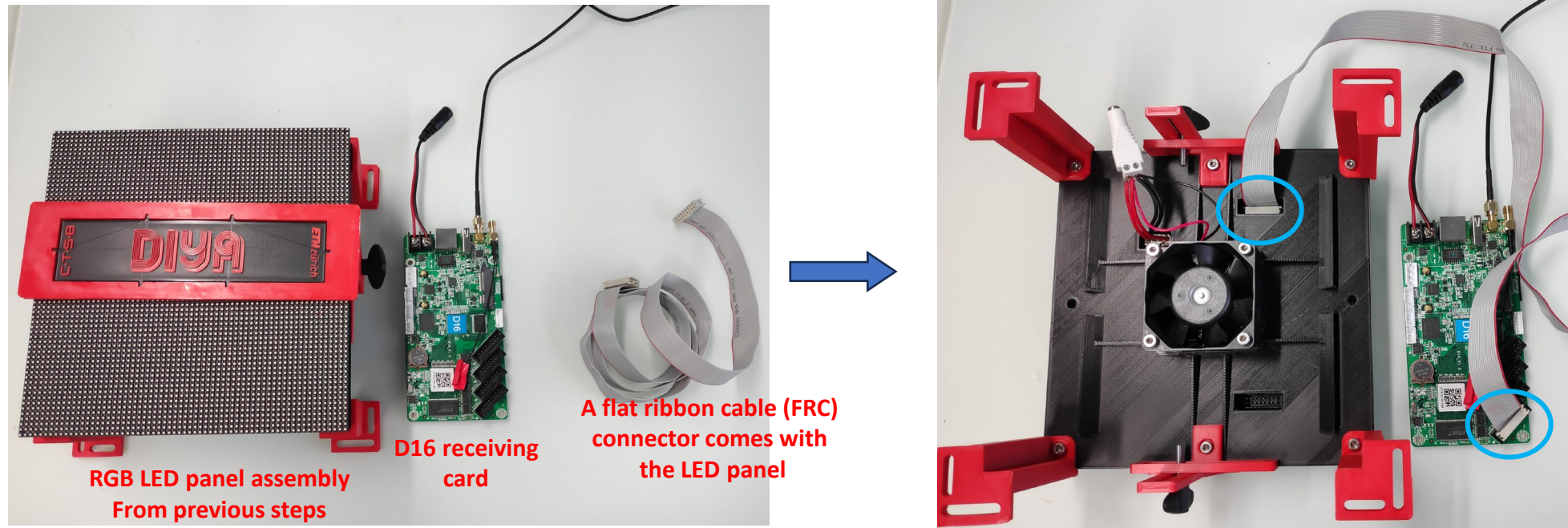
Step 7

- Attach wired power connector to the D16 receiving card as shown here (Red wire to plus; black wire to minus connection)



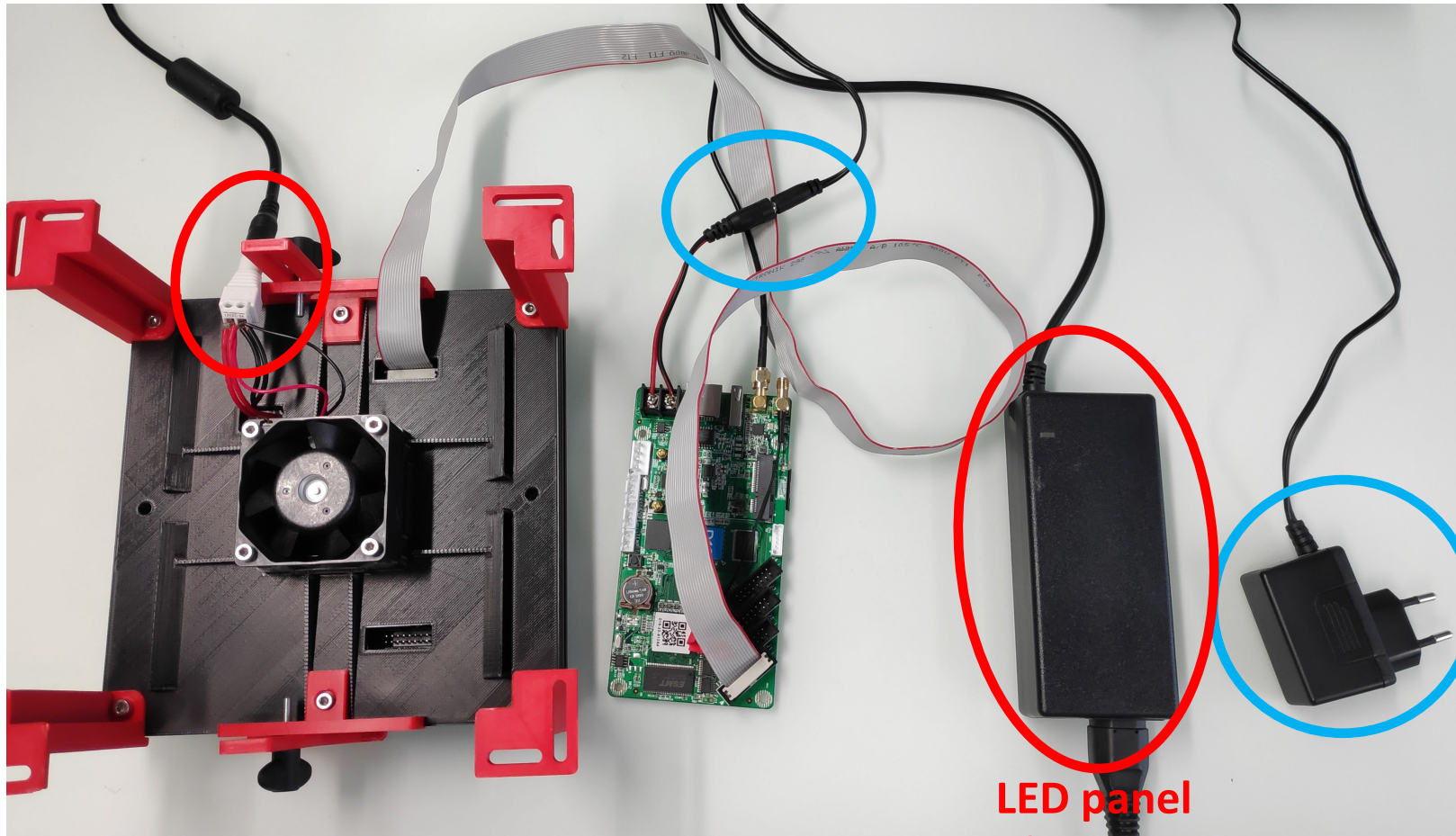
Step 8

- Connect the RGB LED panel assembly with the D16 card (via a flat ribbon cable – FRC – connector) as shown below



Step 9

- Attach two power adapters to the LED panel and the D16 receiving card separately as shown here
- Caution: **10A** power adapter is for the **LED panel**, while **1A** power adapter is for the **D16 receiving card**



LED panel
AC/DC power
adapter (5V, 10A)

Receiving card
AC/DC power
adapter (5V, 1A)

Step 10

- Place well plate adapters onto the LED panel (you can use paper diffuser for homogenous illumination, if needed)
- Place the culture plates on their respective adapters and clamp them from top using the wing screws

