

Delta 700 BIO 3D printer operating instructions

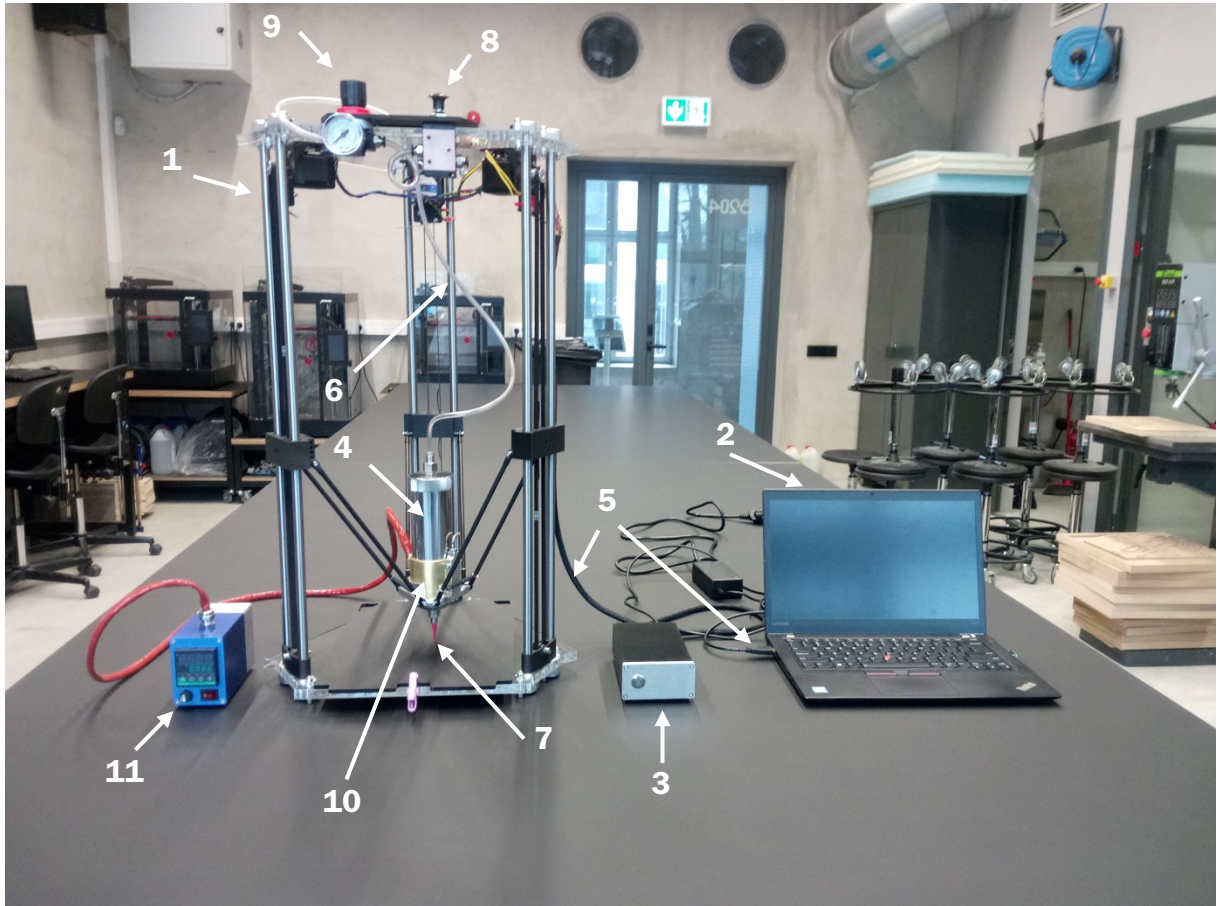
Delta 700 BIO with heated tube

Specifications

Printer type: delta

Print area: cylinder h 230 mm, r 100 mm

Container: 700 g (300 ml, heated)



Key elements:

1. Printer

2. Computer

3. Controller box (Arduino)

4. Tube

5. Connecting cables

6. Hoses

7. Nozzle

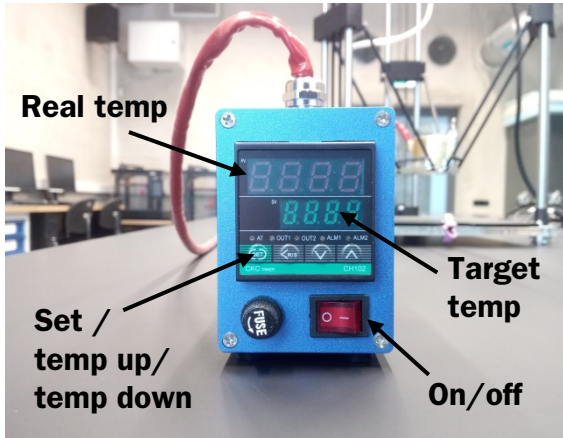
8. Air valve (on / off)

9. Adjustable air pressure valve (with air pressure gauge)

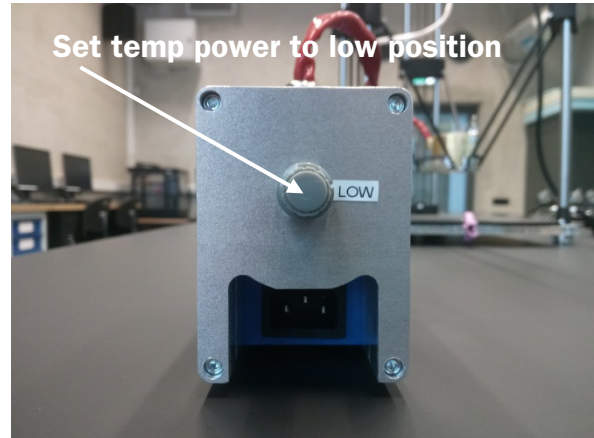
10. Heater collar (will get hot)

11. Heater temperature controller

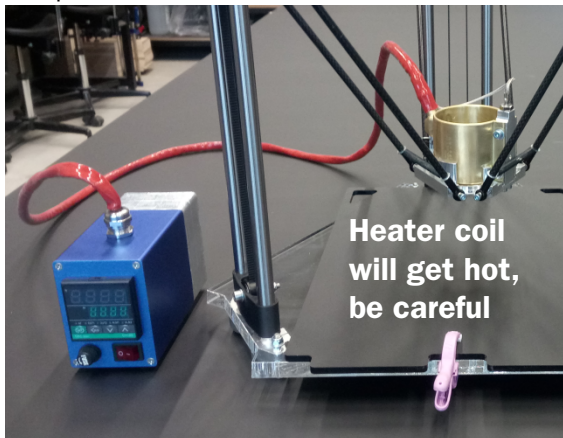
Heater temperature control set



Temp controller



Temp controller power adjustment



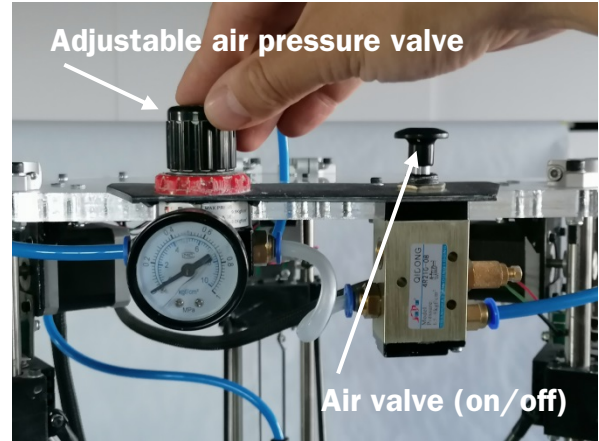
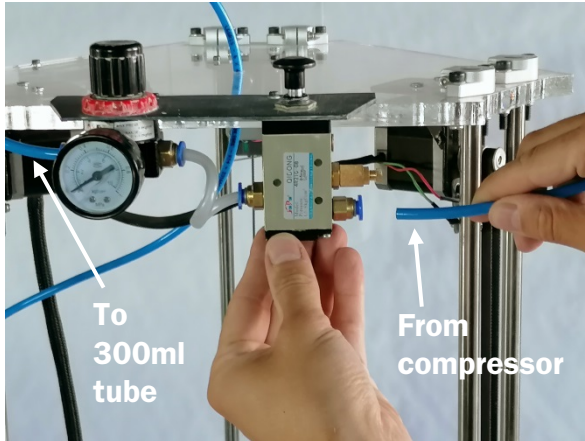
Heater coil



Stainless steel 300 ml tube

Sequence of compressed air connections (connect the hoses accordingly):

1. Compressor
2. Air valve (on /off)
3. Adjustment tap - adjustable air pressure valve (with air pressure gauge)
4. 300 ml tube



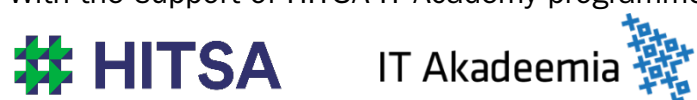
Connect the hoses as shown in the pictures (connect the air valve the last with compressor or integrated air system). Incoming air pressure should be 4–6 bar. Printing pressure is 2–4 bar.

Setting up the printer and printing sequence

1. Connect the printer with the controller (Arduino) box. Plug it in and turn it on.
2. Connect the computer with the controller (Arduino) box using the USB cable
3. Launch Simplify3D
4. Attach (screw in) the nozzle to the 300ml tube
5. Insert the 300 ml tube into the printer tube holder
6. Make sure the temp controller power adjustment is set to low (knob on the back of the temperature controller)
7. Switch on the temperature controller
8. Set the temp controller to 30 °C, adjust it gradually to the desired temperature
9. Before connection to the compressor, make sure the air valve is in the OFF position (pulled up)
10. Rotate the adjustable air pressure valve to the zero pressure position (all the way counter-clockwise)
11. Push the air valve to the ON position (down)
12. Gradually add air pressure to the 300 ml tube by rotating the valve knob clockwise. The flow rate from the nozzle increases as you rotate the knob.

Note: It is extremely important to make sure that the temperature controller power adjustment is set to low (knob on the back of the temperature controller). You also need to wait for the heater collar to cool down before handling the heated 300 ml tube when finishing printing.

With the support of HITSA IT Academy programme.



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