Delta WASP 2040 3D printer material preparation instructions

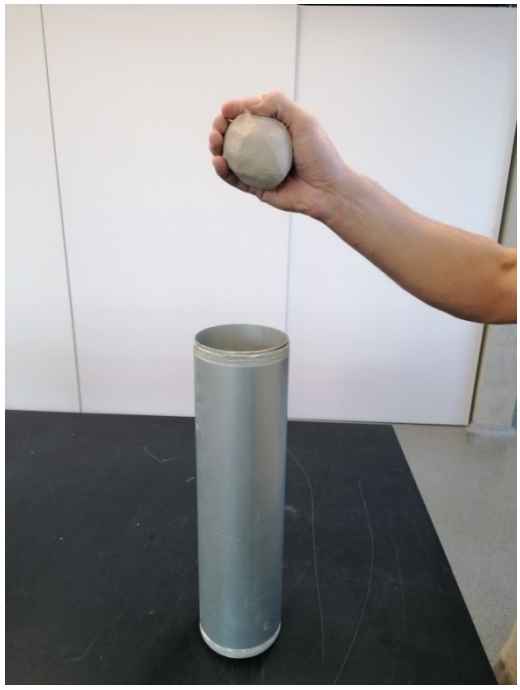
Delta WASP 2040 with pneumatic clay extruder

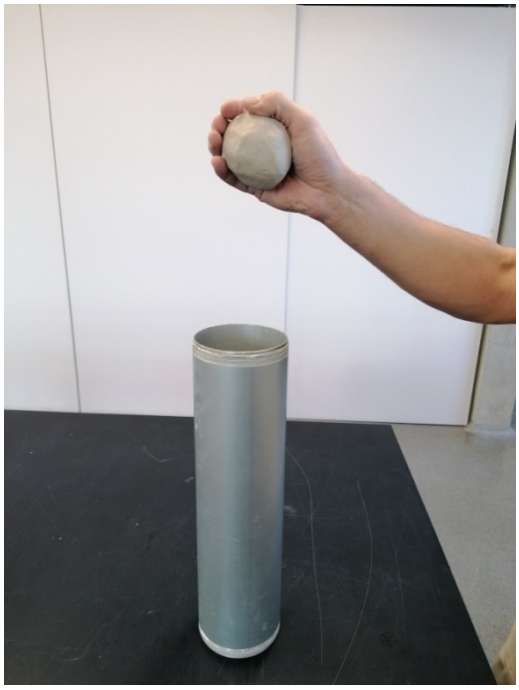
Specifications
Printer type: delta
Print area: cylinder h 350 mm, r 90 mm
Clay container: 11 kg
Start and stop function: yes

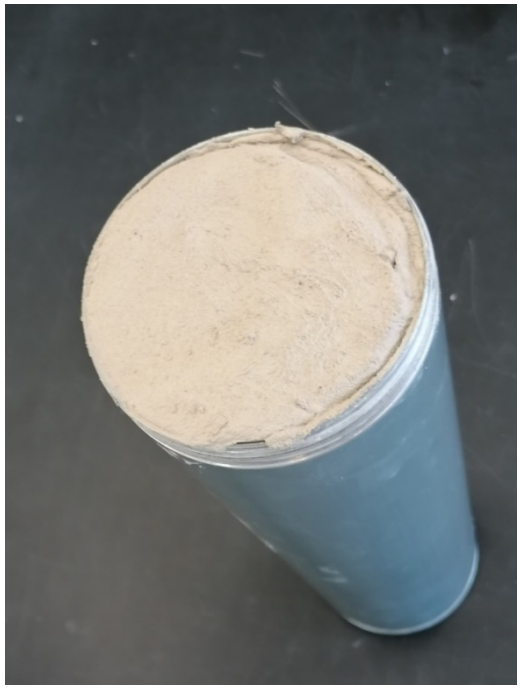
The Delta WASP 2040 printer is the only commercially available printer in the ceramic studio. All other printers have been developed and built in EKA. In addition, this machine has needed some rebuilding and improving. The screw of the extrusion system and nozzle have been replaced. The hose between the clay container and extruder has been replaced with a more durable component, and fast connectors have been added for more user-friendly use. The printer also has an SD-card option and Arduino-based menu system.

Preparing the material for the WASP 2040 printer

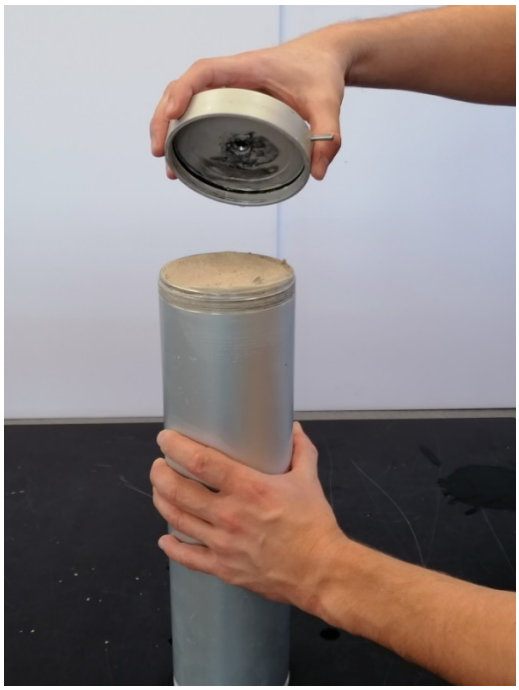
The best approach for filling the clay container is making little clay balls and throwing them into the container. Throwing them helps to avoid air pockets in between lumps. Before doing this, be sure that the piston is at one end of the tube.

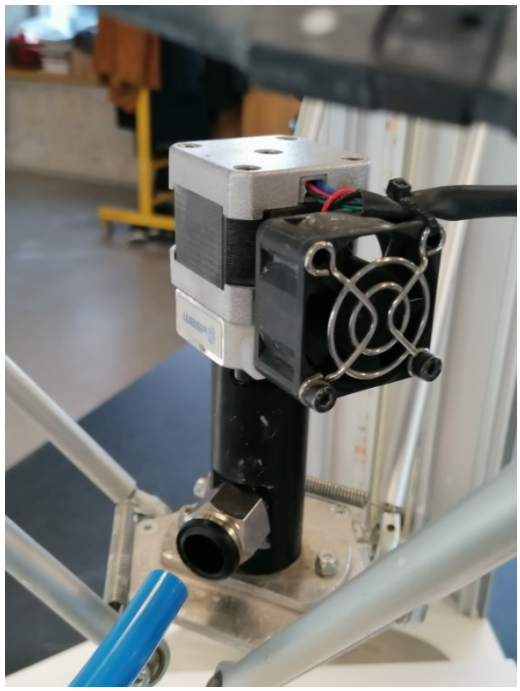






Close both ends of the container. Since the tube has symmetrical ends, you can use it both ways. Just be sure that the cap for pressing air goes behind the piston and the clay exiting cap is against the material.
Connect the hose between the container and extruder.





Connect the hoses for air pressure.
Open the tap and regulate the pressure to 4–6 bar. You can adjust this during printing.
Try to find a good balance between air pressure and extrusion speed.
It is also possible to adjust the printing speed from the Arduino menu.

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