

Ceramic Profile Extrusion;
New Tooling Approaches to Re-Appropriate the
Use of a Heritage Medium in Architecture

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24 month initial funding, reporting on interim findings



Arts and
Humanities
Research Council



Centre for Fine Print Research



ceramics in architecture: our heritage



ROYAL ALBERT HALL

LECTED FOR THE ADVANCEMENT OF THE ARTS AND SCIENCES

ALBERT HALL







Press Moulding (by hand)



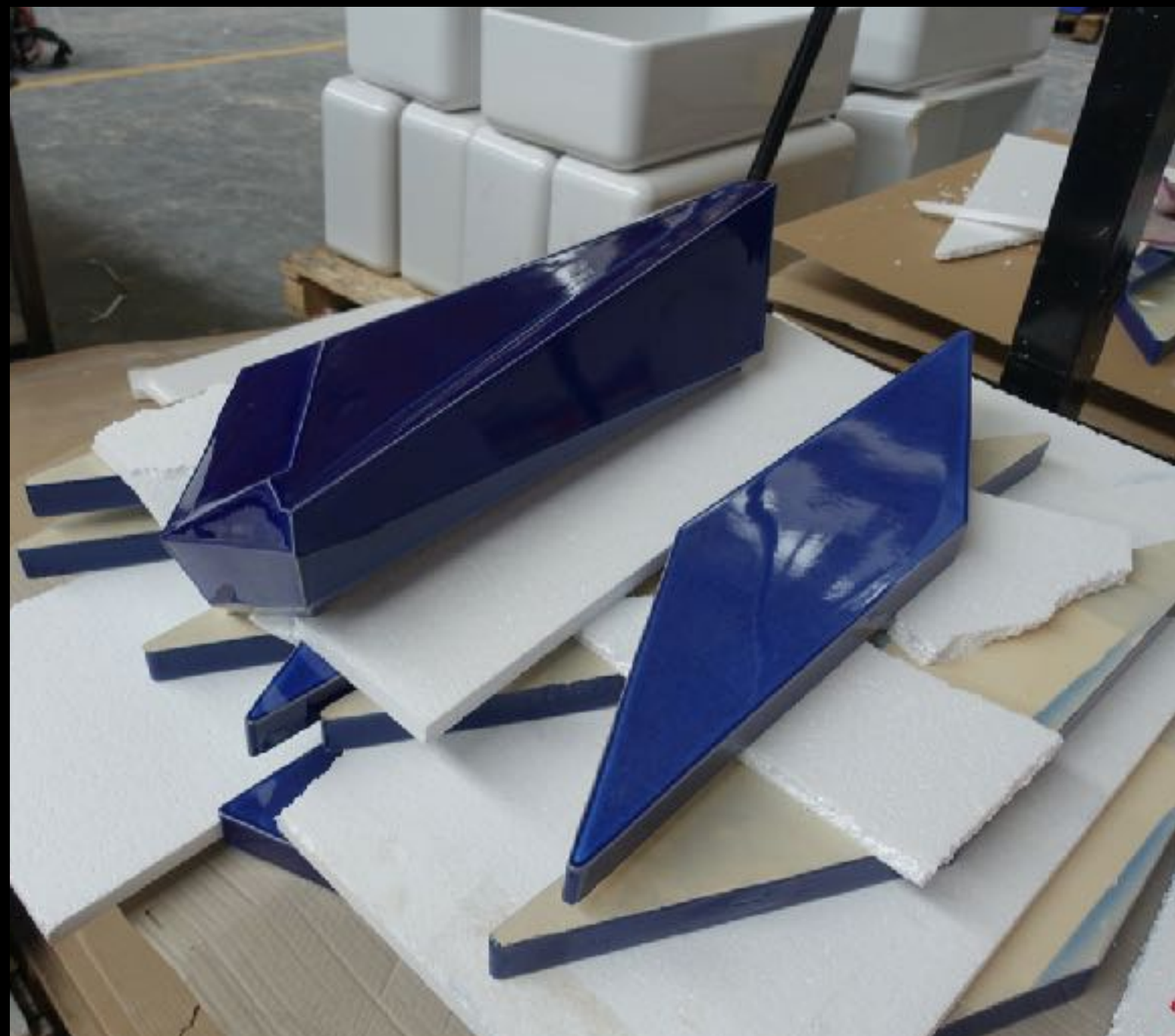
Die Pressing (mechanical)

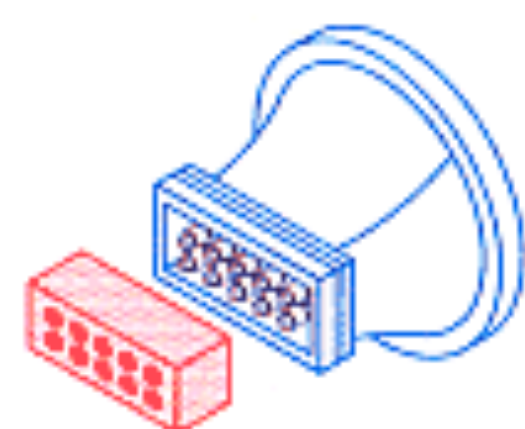


Slipcasting



Extrusion

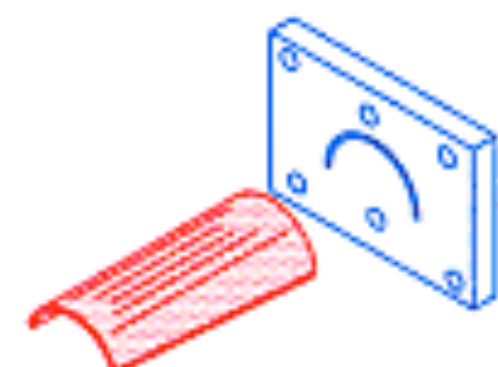




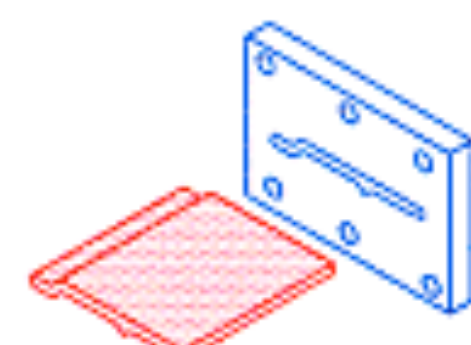
TEN HOLE CORED



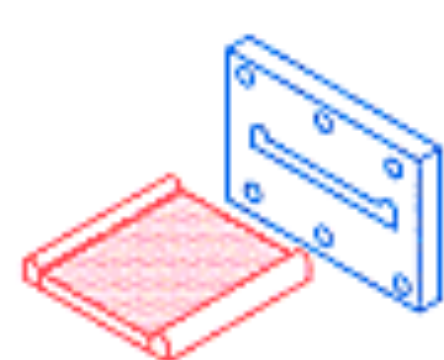
STANDARD BRICK



STANDARD MISSION (PCP)



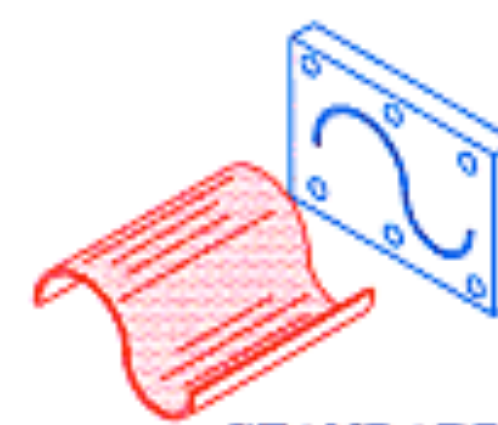
FLAT ROOF TILE



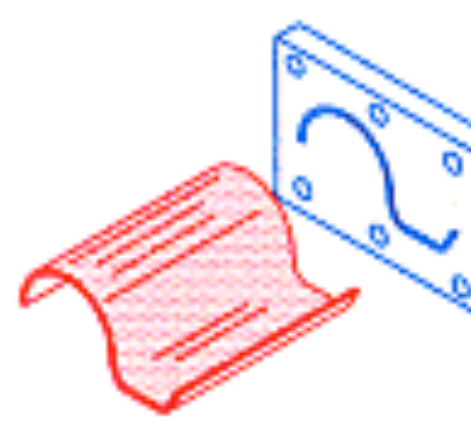
FLOOR TILE



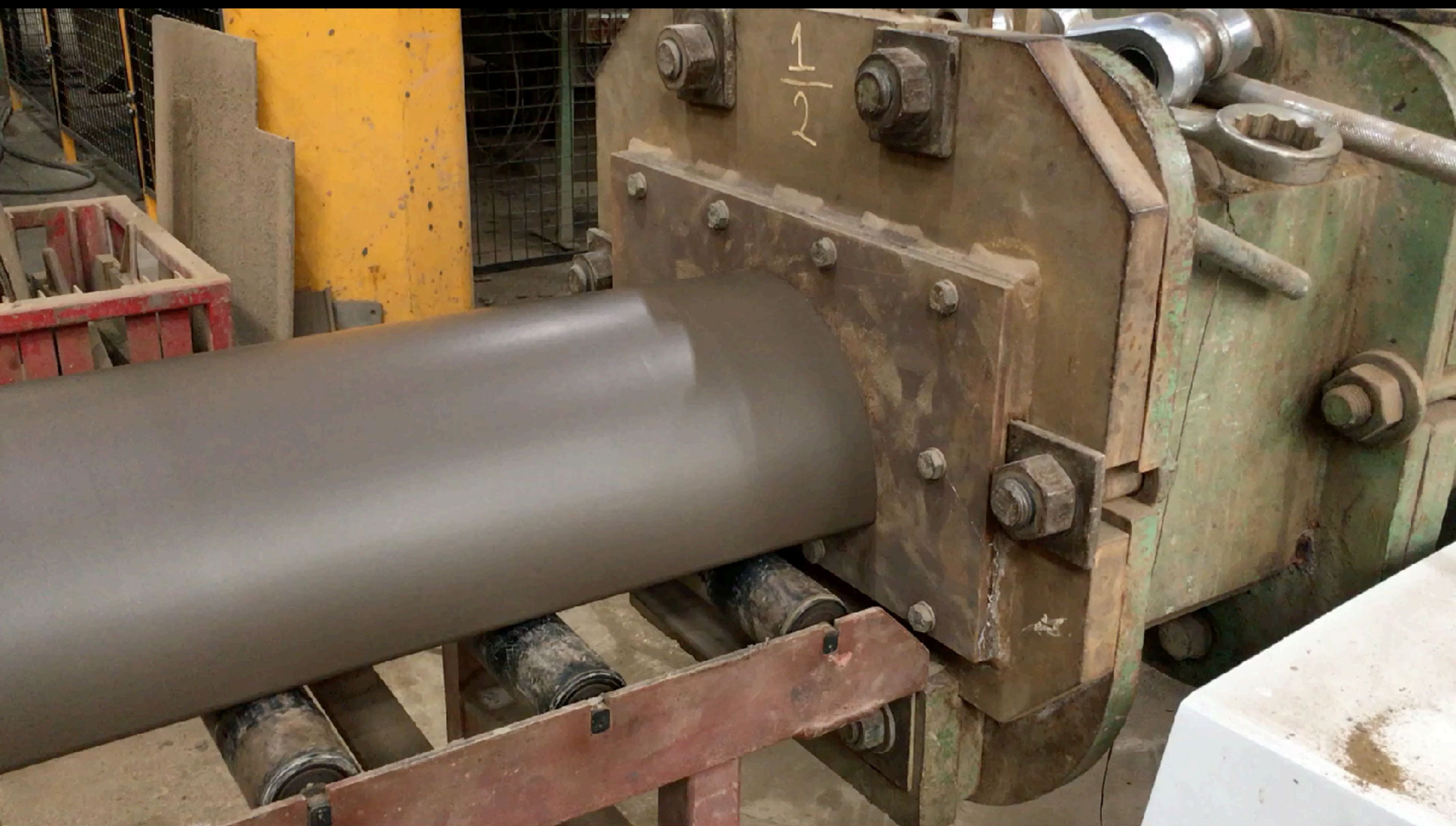
BLOCK



STANDARD "S" TILE



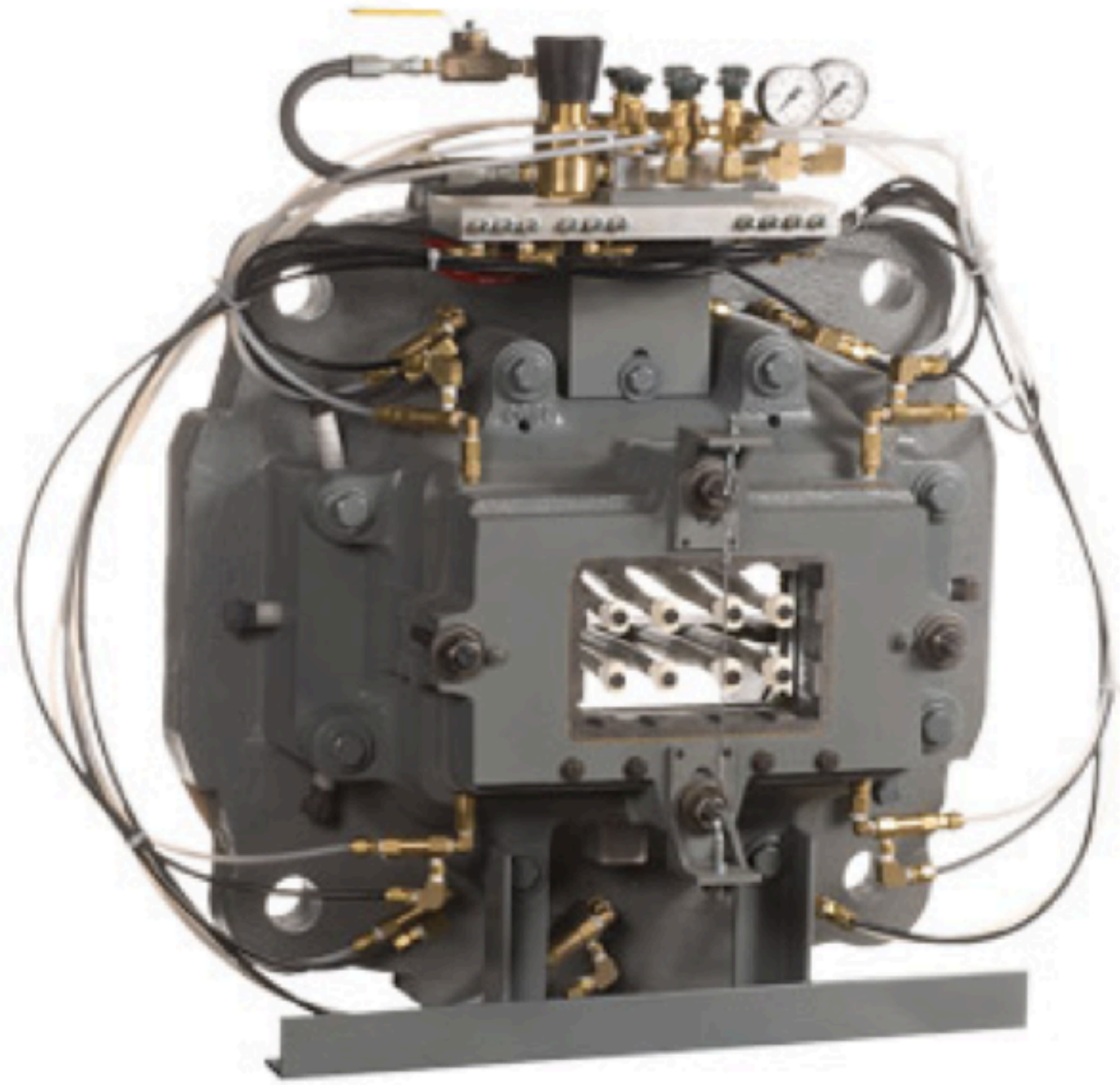
FLAT "S" TILE



Ridge tile production, Wienerberger Sandtoft site

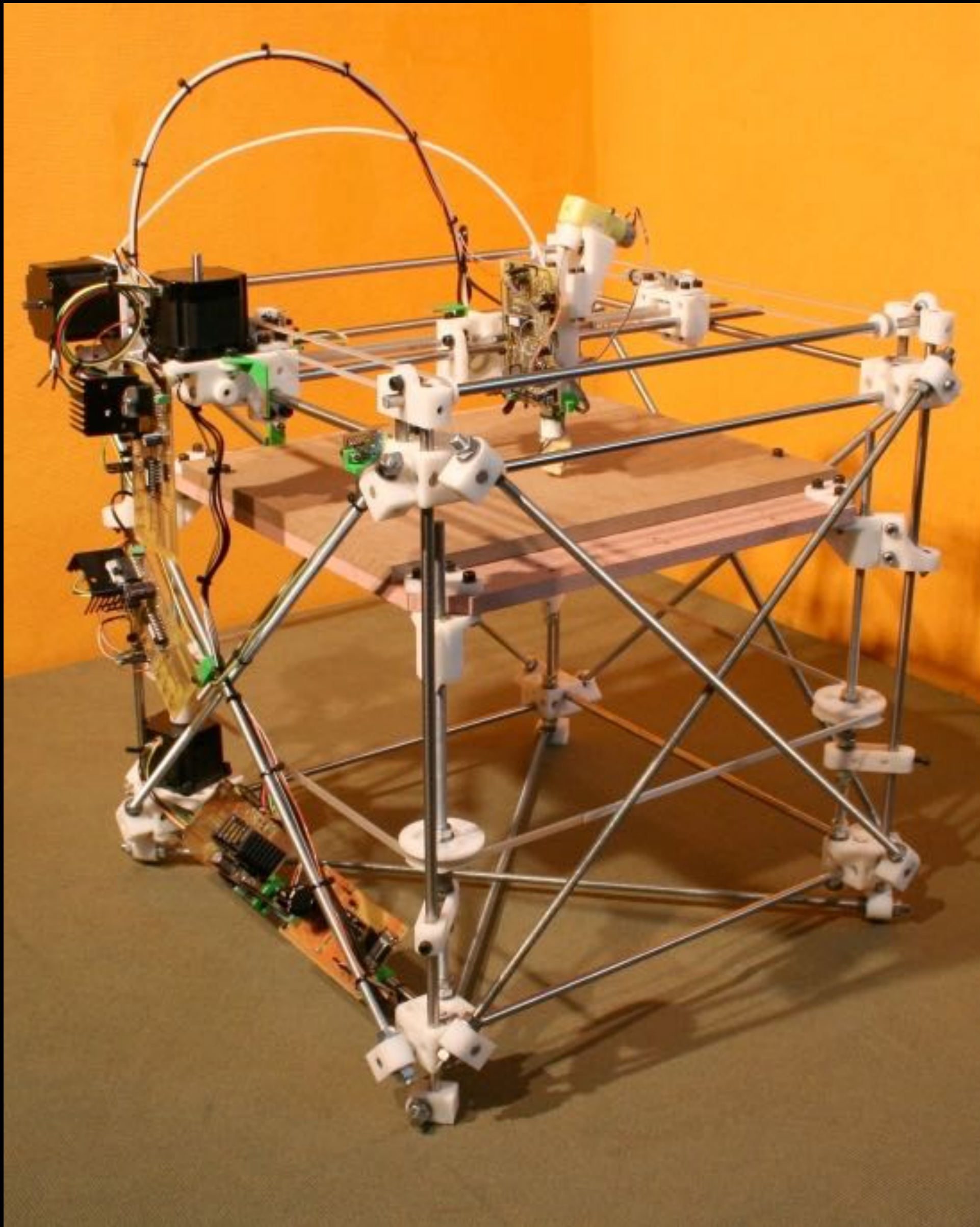


Ridge tile production, Wienerberger Sandtoft site



Extrusion Dies

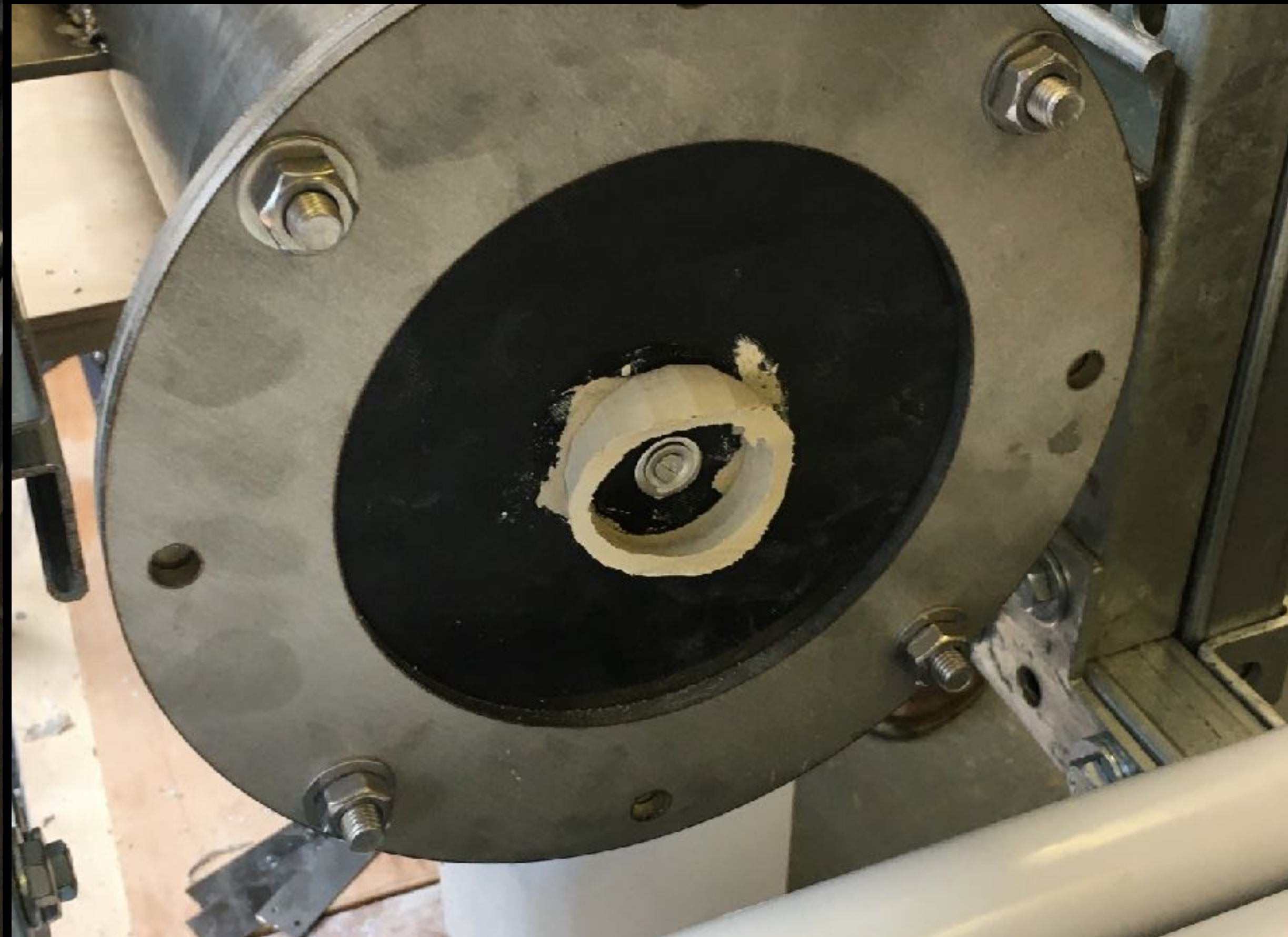
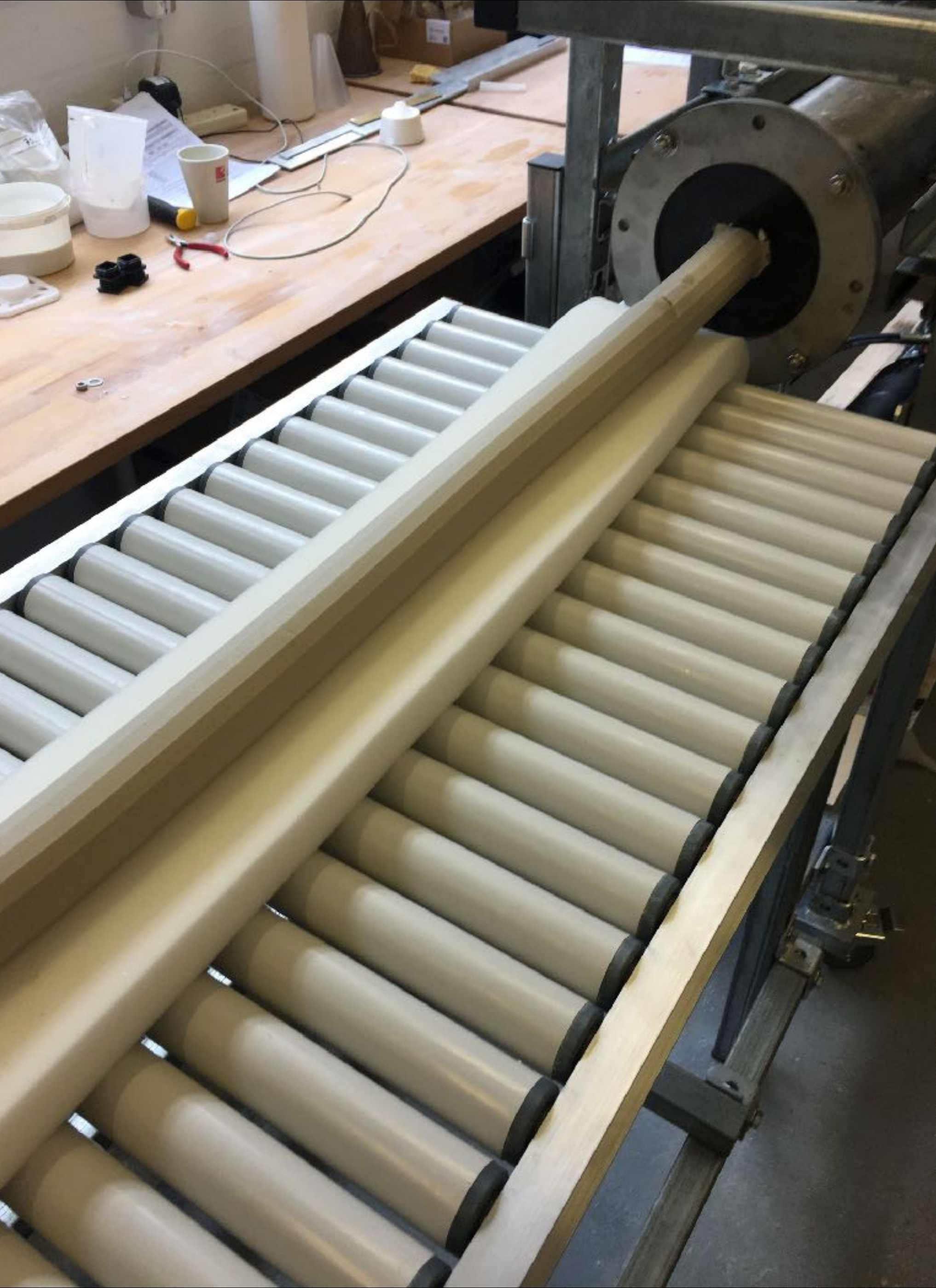
3D Printing: New Industrial Revolution



The REPRAP - open source Rapid Prototyping Project
Andrian Bowyer, University of Bath 2006









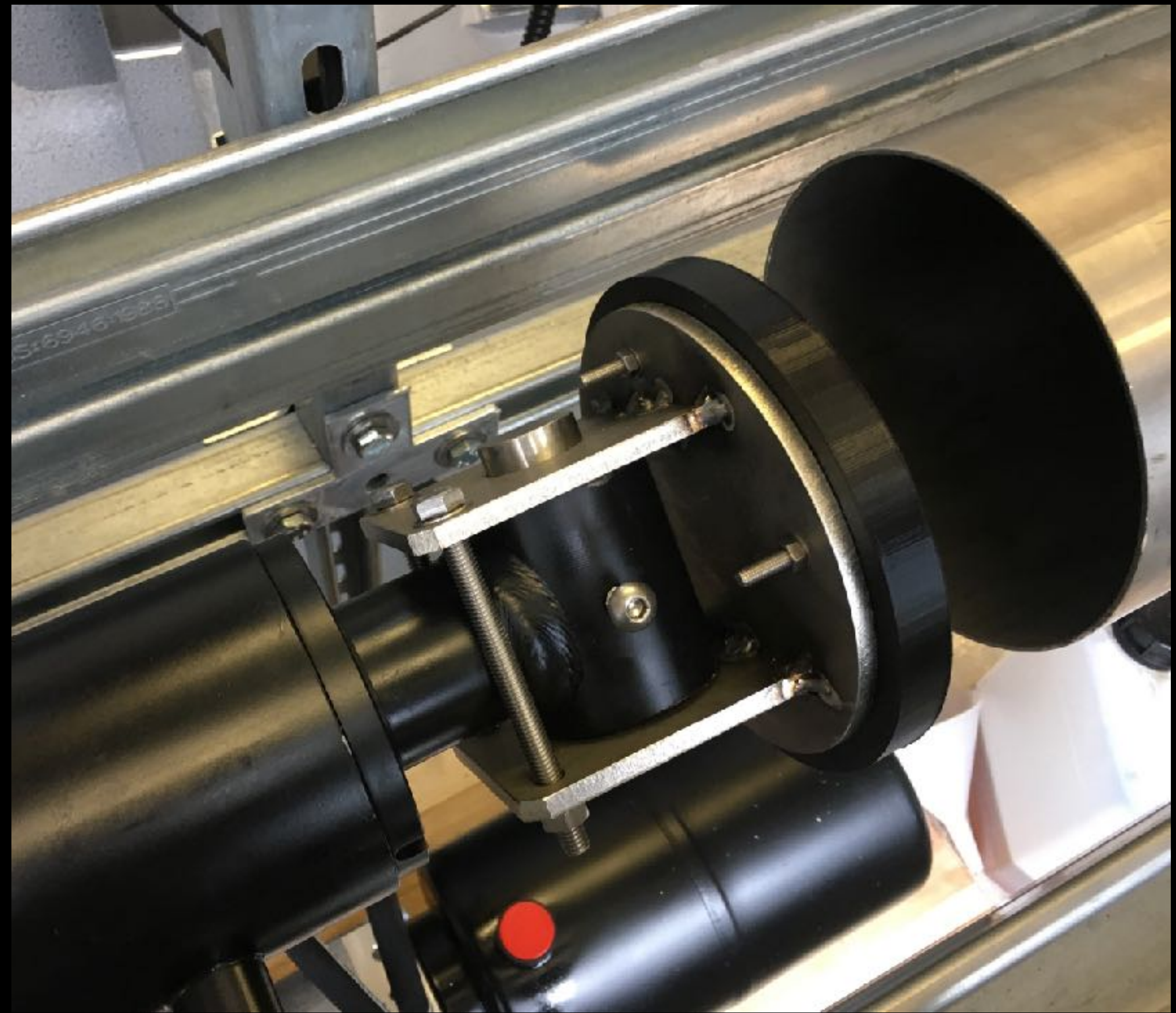


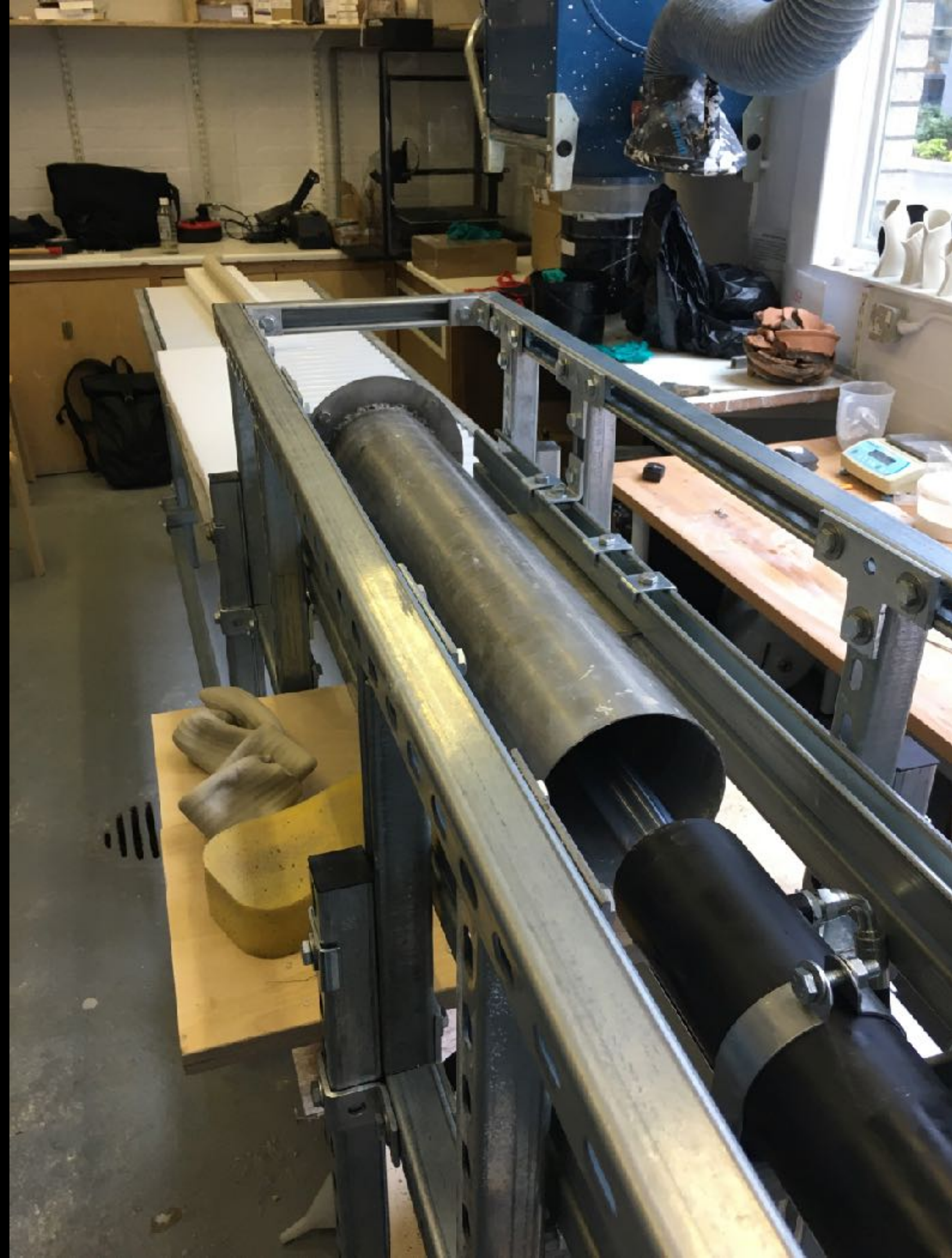
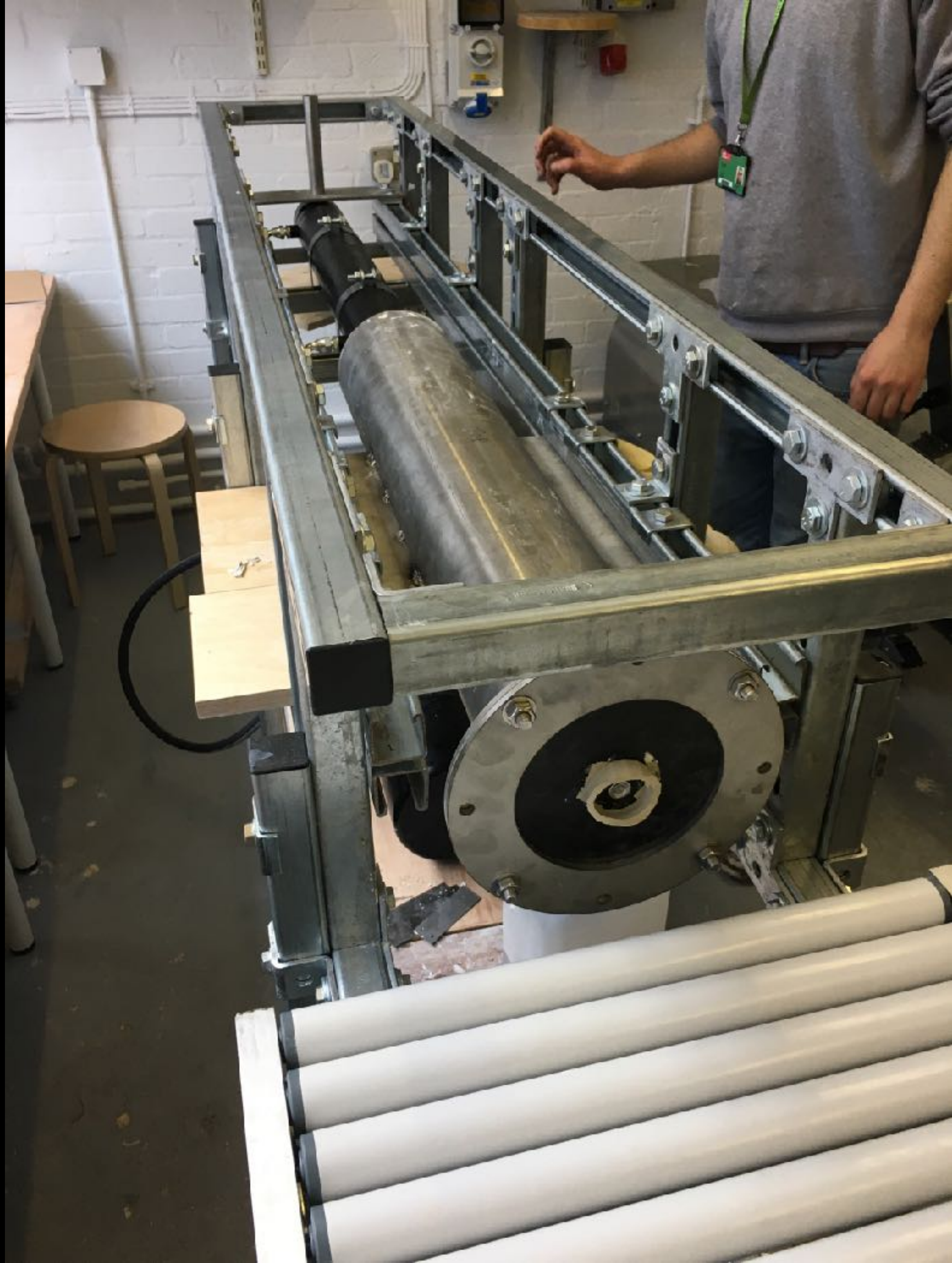


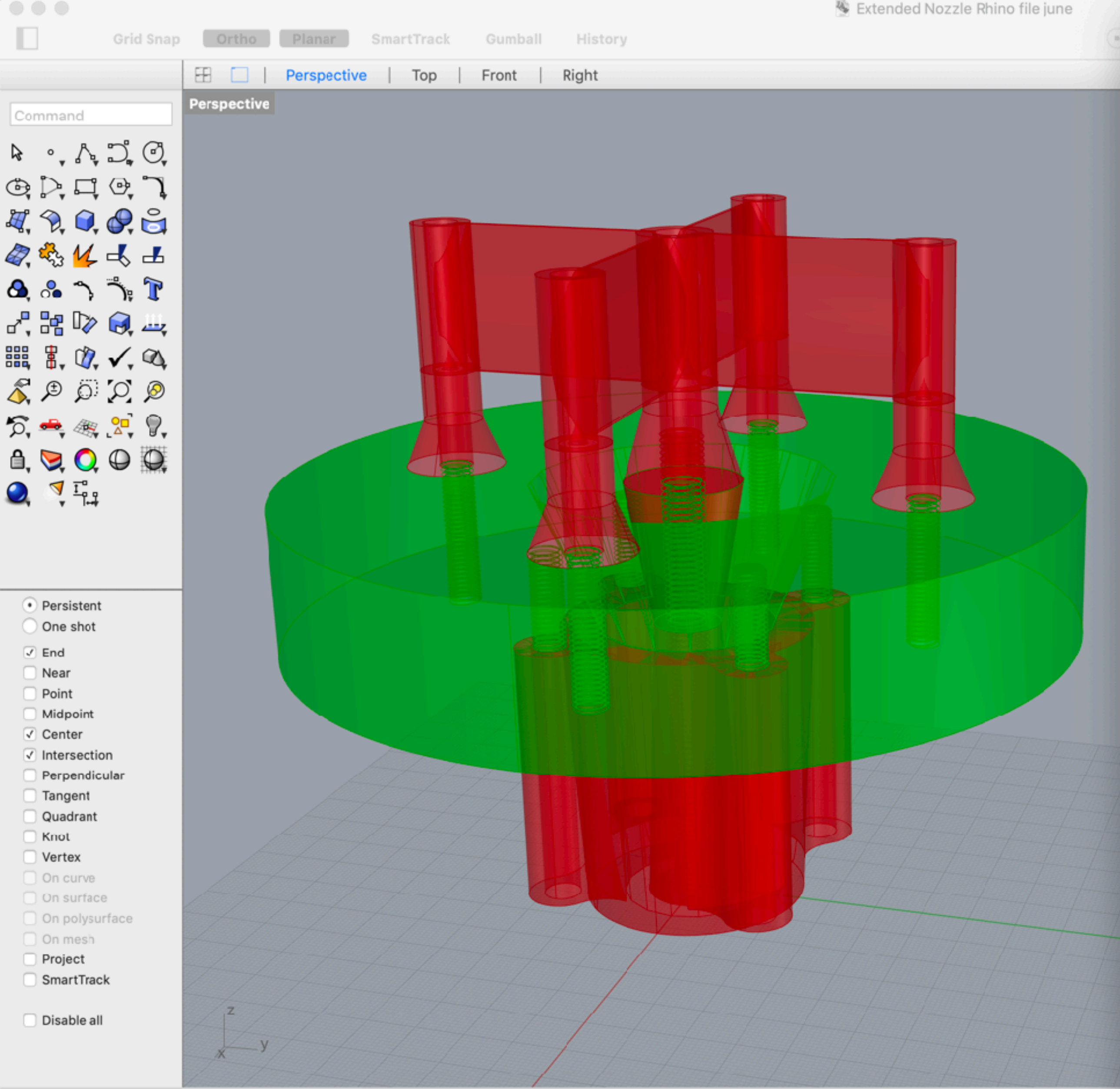




Commercial
CRATE HIRE







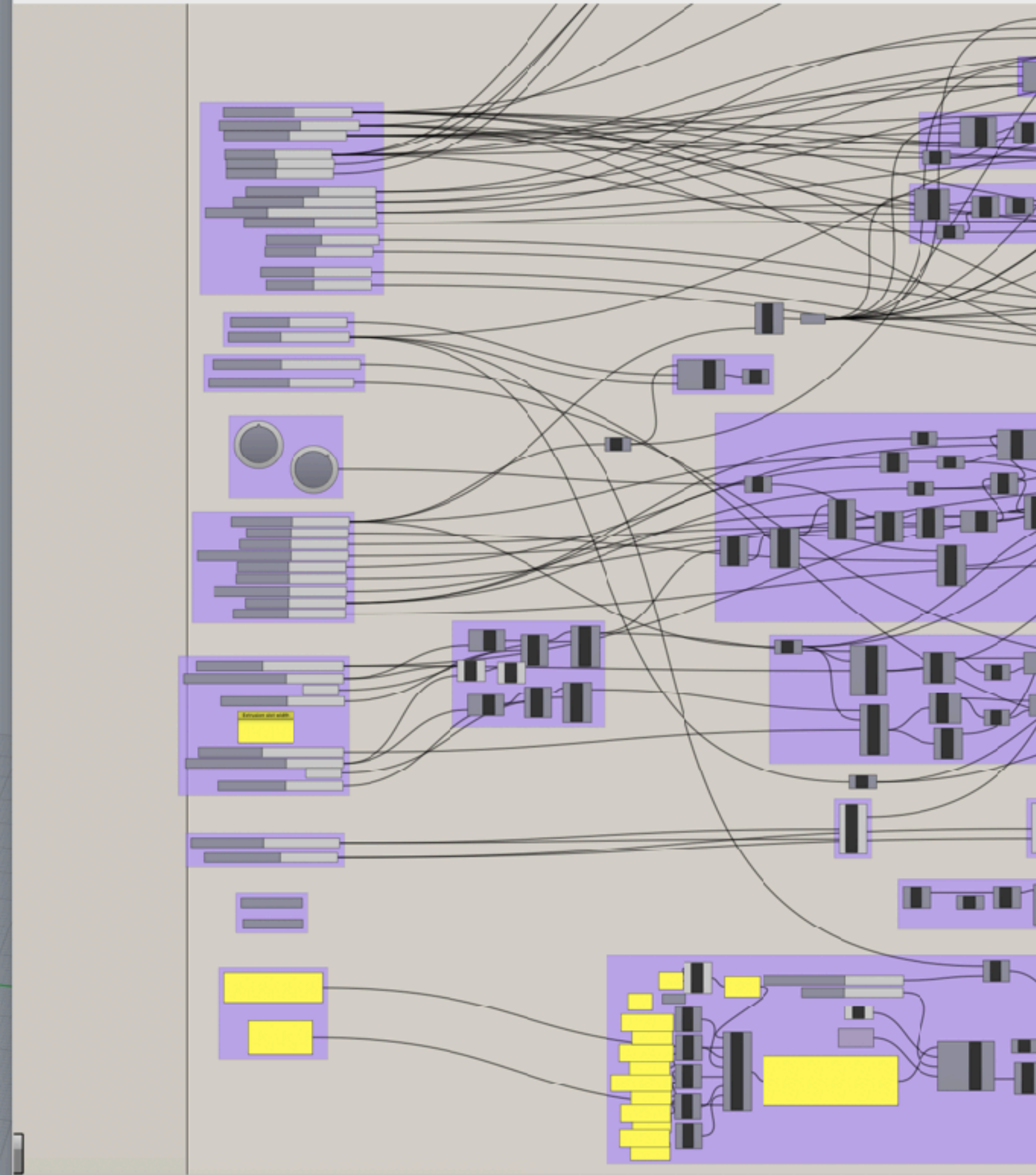
Command



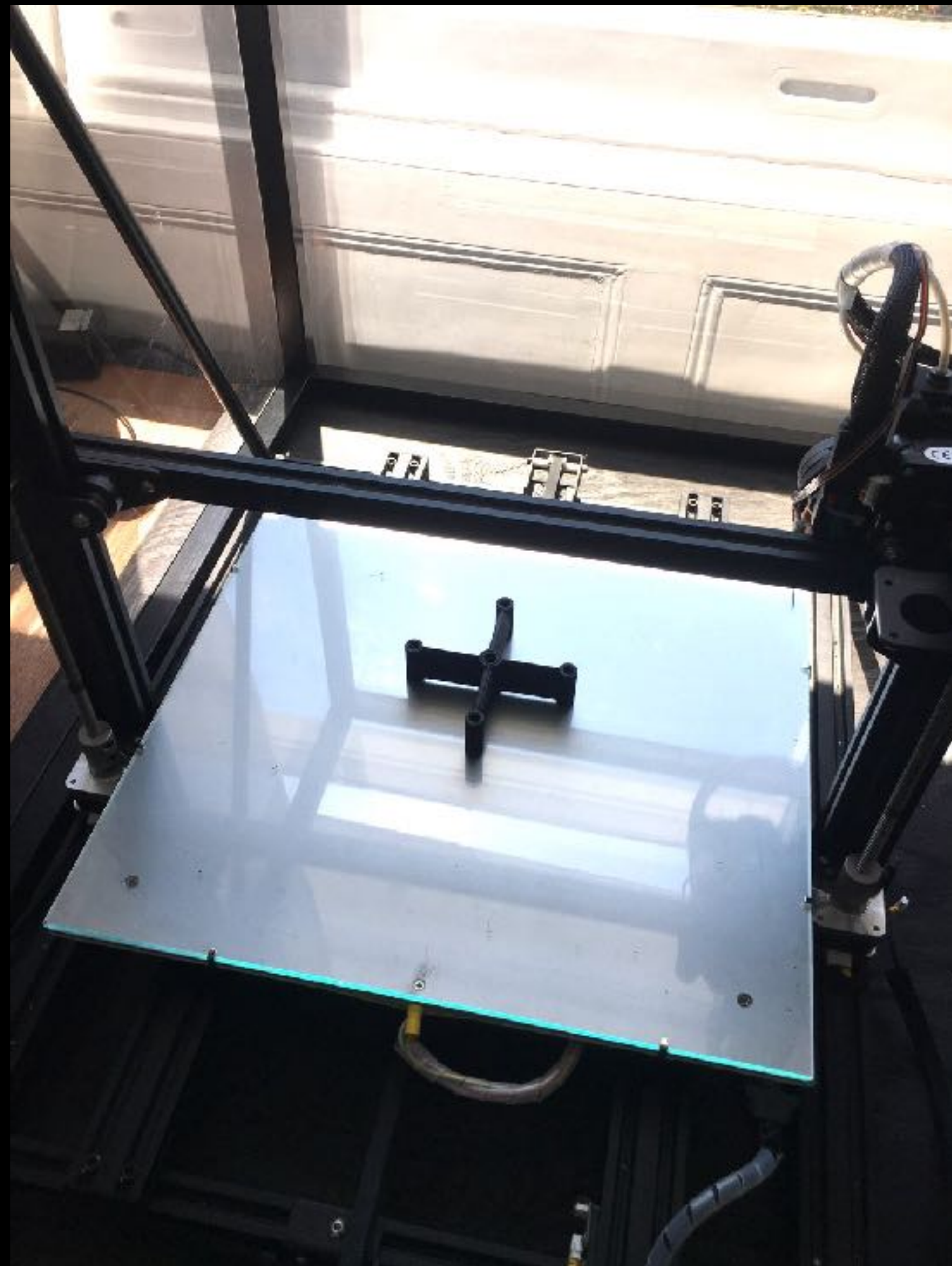
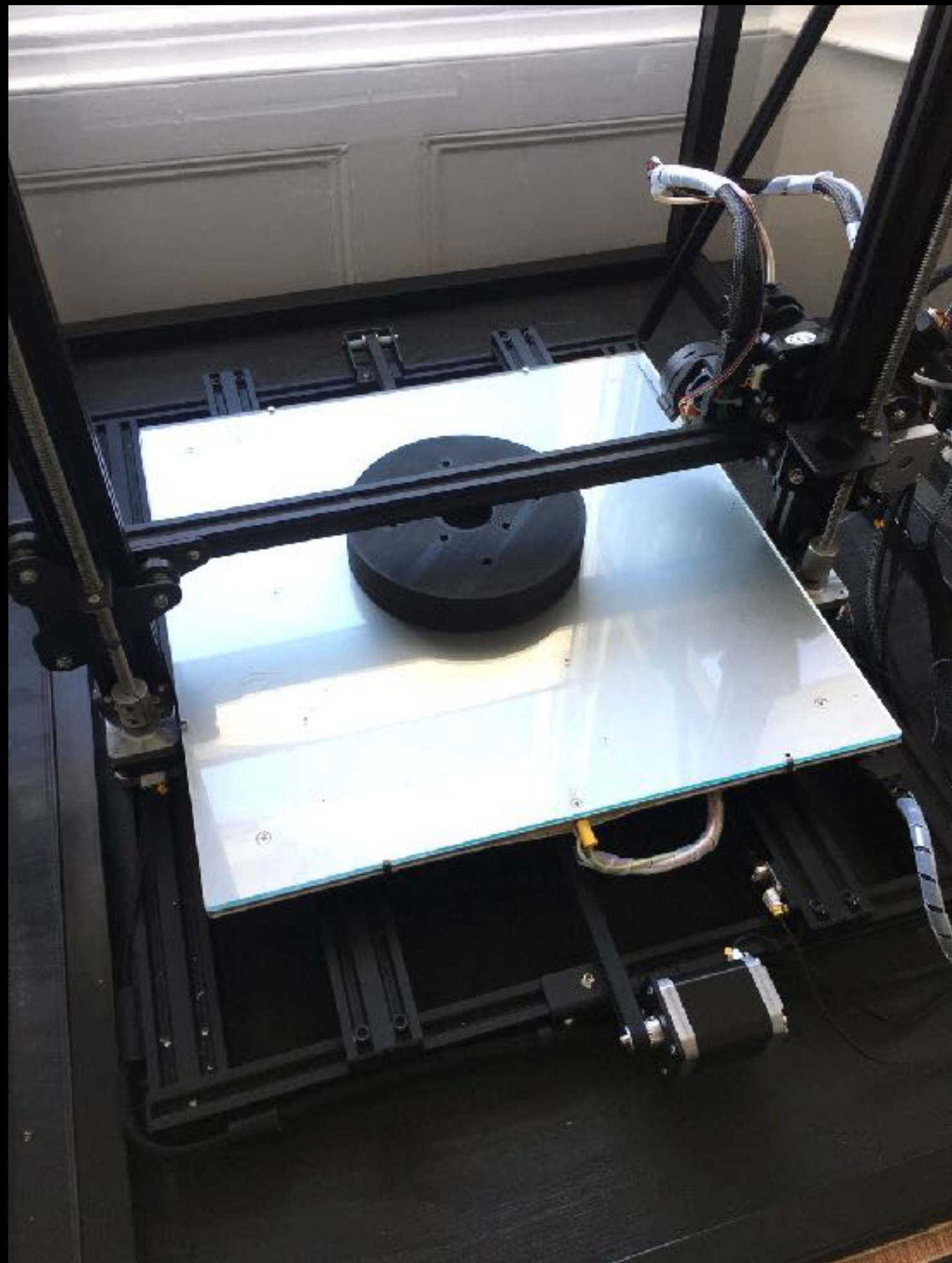
- Persistent
- One shot
- End
- Near
- Point
- Midpoint
- Center
- Intersection
- Perpendicular
- Tangent
- Quadrant
- Knot
- Vertex
- On curve
- On surface
- On polysurface
- On mesh
- Project
- SmartTrack
- Disable all



32% [Refresh] [Eye] [Fire]



Solution completed in ~16.9 seconds (60 seconds ago)

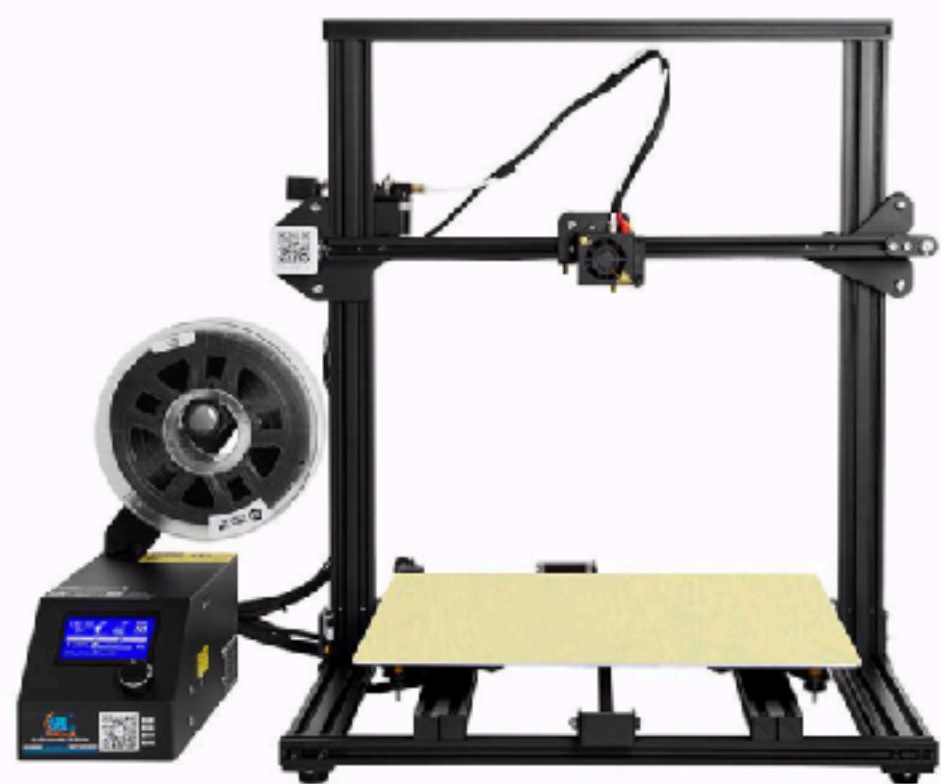


CREALITY

Creality3D
Printer Large
400x400x400
(Color)

CREALITY 3D
~~€599,00~~ €509,99 Sale

Warehouse
EU (In Stock)







extruding straight

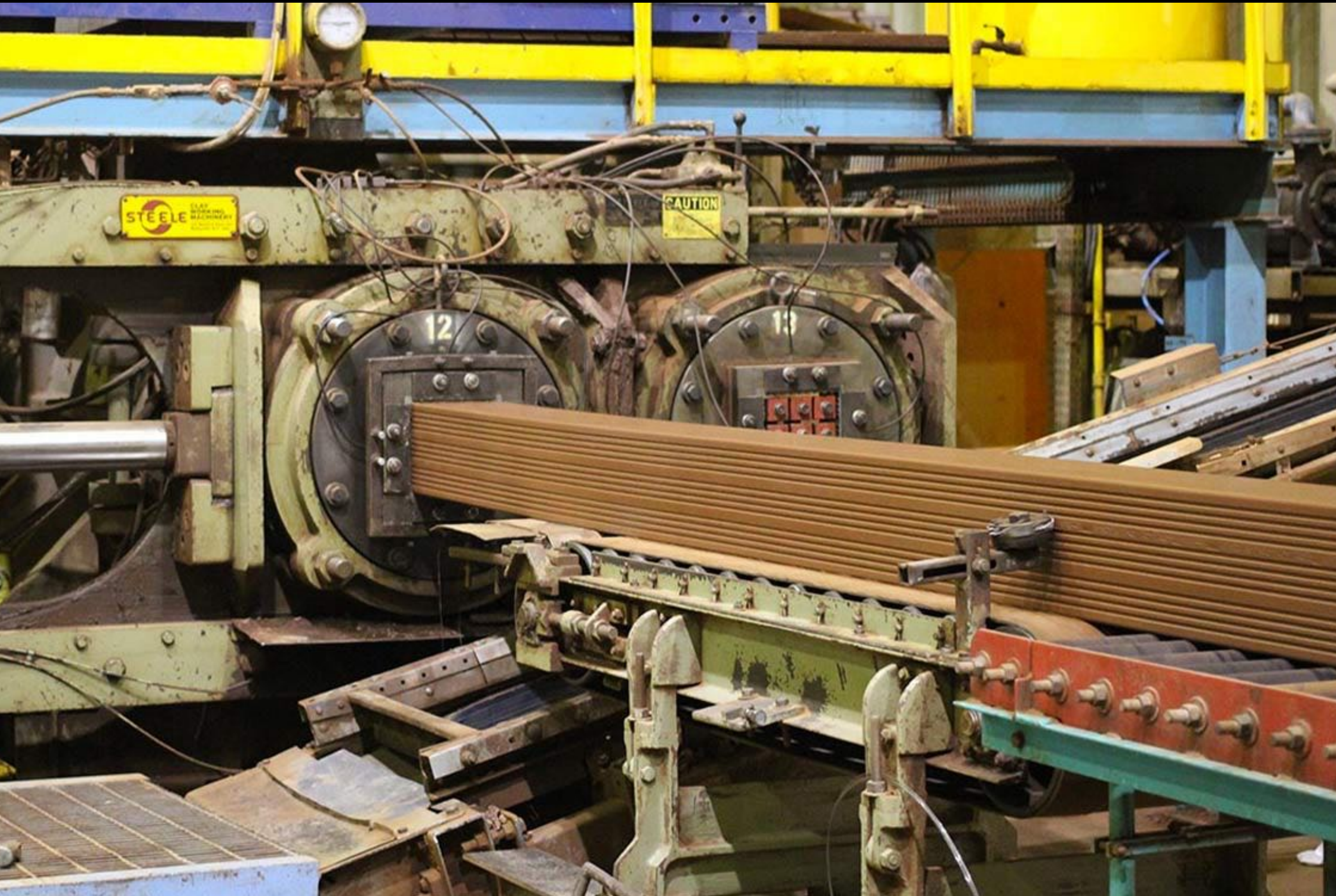


Image: JCS Steele

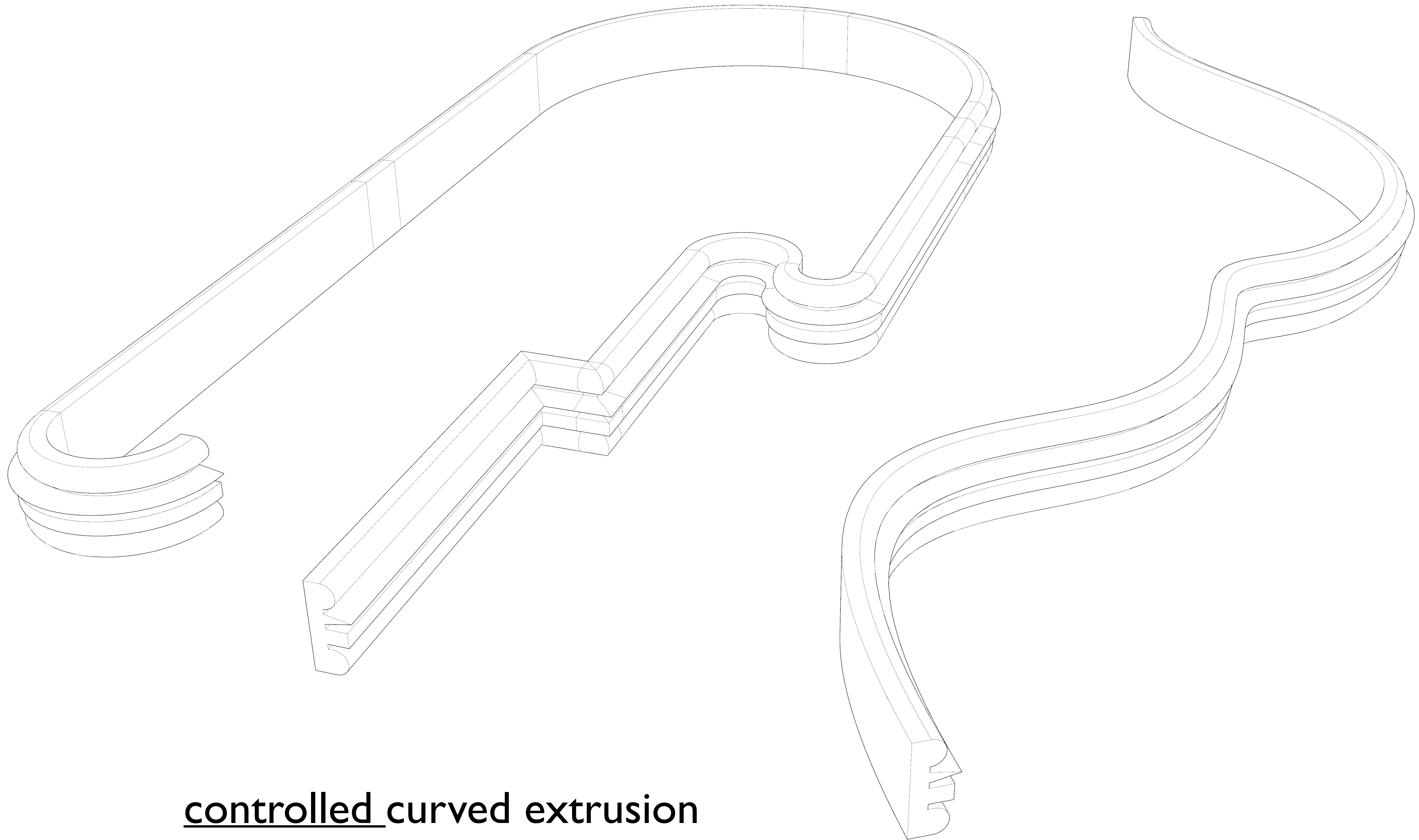


Image: Ceramica Cumella









controlled curved extrusion

GET TO KNOW OUR COLLABORATIVE ROBOTS BY COMPARING THEM

Compare our robots by selecting them below



UR3e



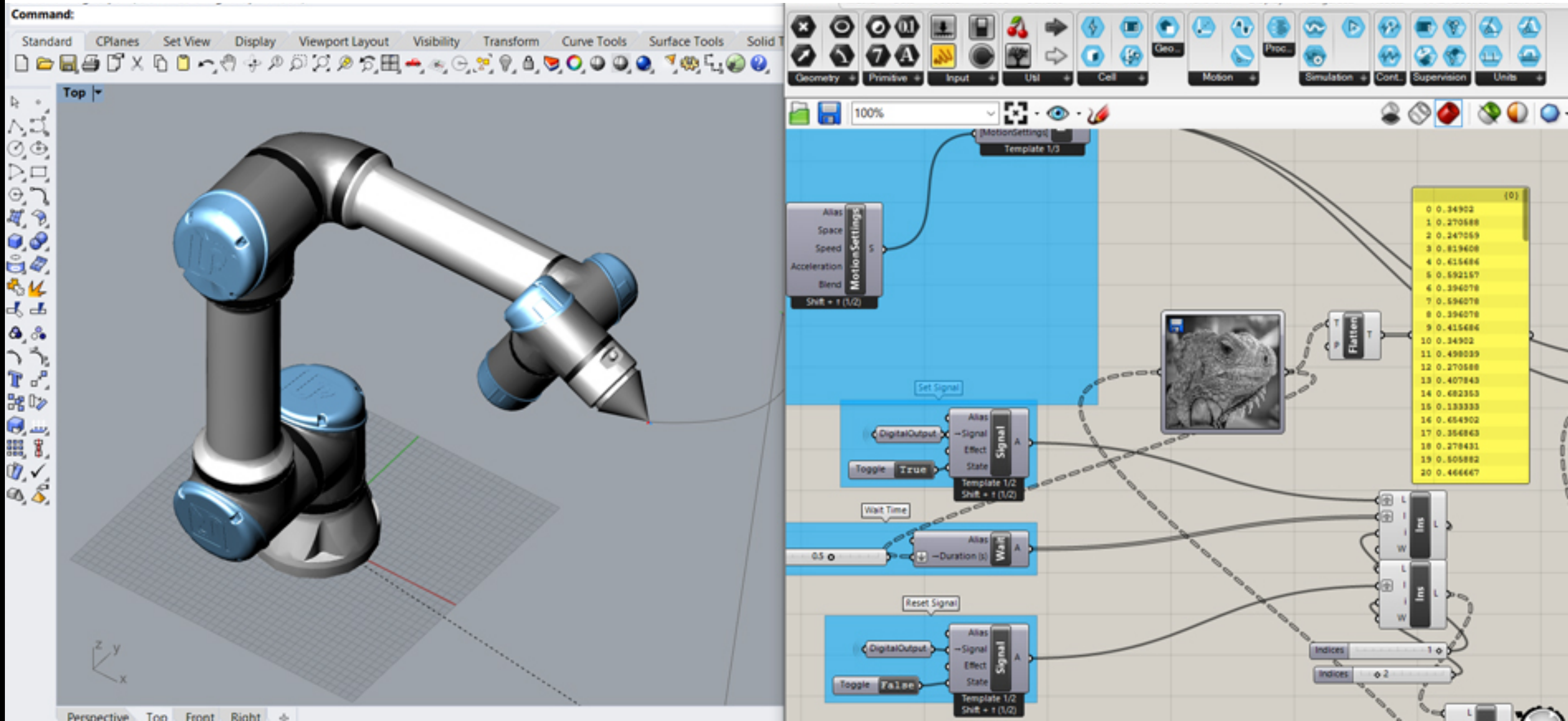
UR5e



UR10e



UR16e **NEW**



The screenshot displays the Universal Robots Studio software interface. On the left, a 3D perspective view of a robot arm is shown on a grid. On the right, the motion programming workspace is visible, featuring a toolbar with icons for Geometry, Primitive, Input, UR+, Cell, Motion, Simulation, Cont., Supervision, and Units. The workspace contains several logic blocks: 'MotionSettings' (Template 1/3), 'Signal' (Template 1/2), 'Wait' (Duration 1), 'DigitalOutput' (Signal Effect State), 'Toggle True', 'Toggle False', 'Reset Signal', and 'Indices'. A yellow data table is also present, listing numerical values for 20 rows.

Index	Value
0	0.34902
1	0.270588
2	0.247059
3	0.819408
4	0.415484
5	0.592157
6	0.394078
7	0.594078
8	0.394078
9	0.415484
10	0.34902
11	0.498039
12	0.270588
13	0.407943
14	0.482353
15	0.133333
16	0.454902
17	0.354843
18	0.278431
19	0.505882
20	0.466467

application, use, collaborators?

Industrial collaborators:

ARUP

CENTRE FOR
**WINDOW AND
CLADDING**
TECHNOLOGY



SIBELCO

Wienerberger

The logo for Wienerberger consists of a stylized red bar chart with three bars of increasing height, positioned above the company name.



10 BOND STREET Manufacturer: Boston Valley Terracotta - Architects: Selldorf Architects



10 BOND STREET

Manufacturer: Boston Valley Terracotta - Architects: Selldorf Architects



200 ELEVENTH AVENUE



Manufacturer: Boston Valley Terracotta - Architects: Selldorf Architects

Thank you

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