

**3D
XL**

MAY 14 - AUG 16

**A LARGE-SCALE
3D PRINTING
EXHIBITION**

SEE
THE ACTION

CO-PRESENTED BY



GREAT GULF

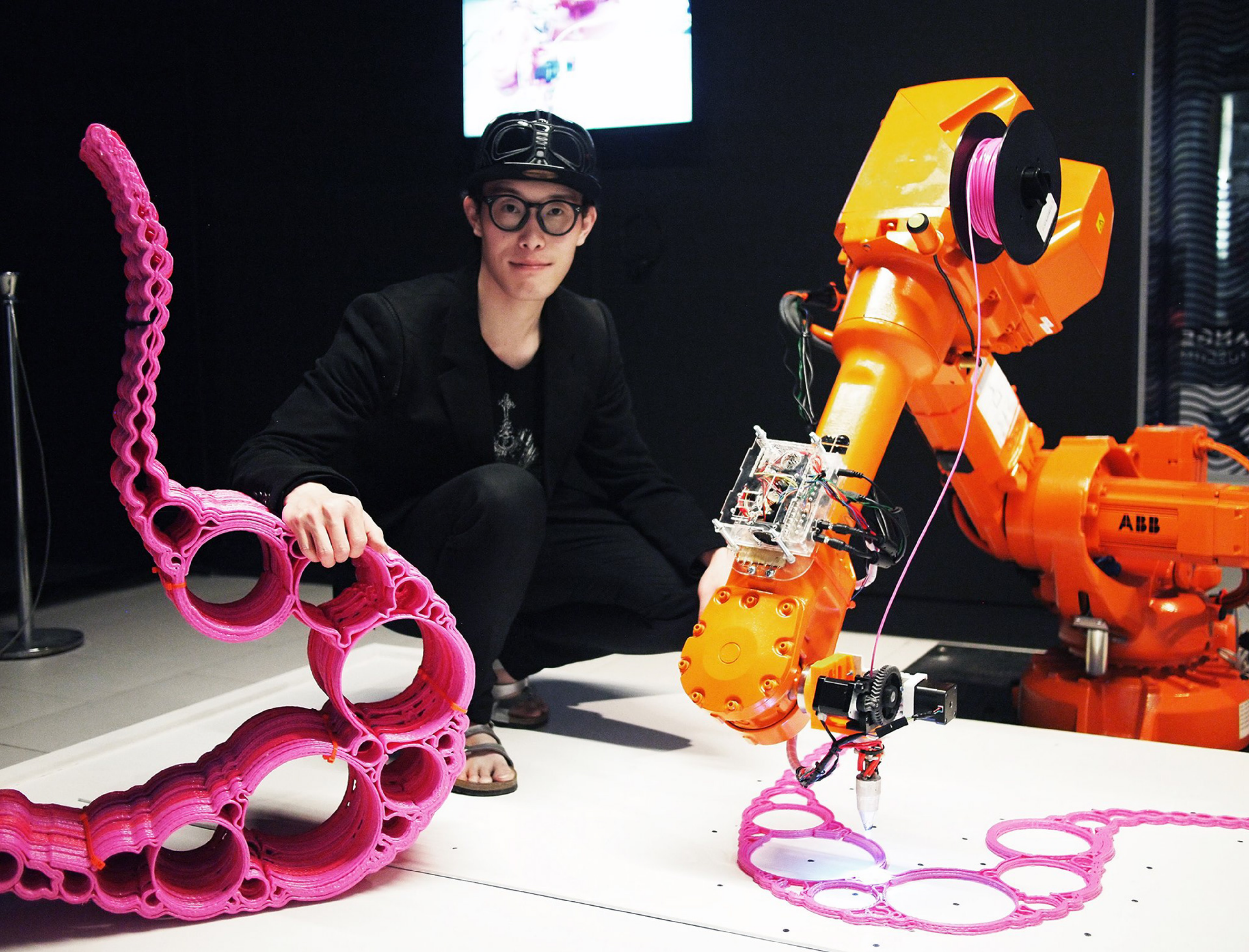
ATPH
THE PRINTING HOUSE

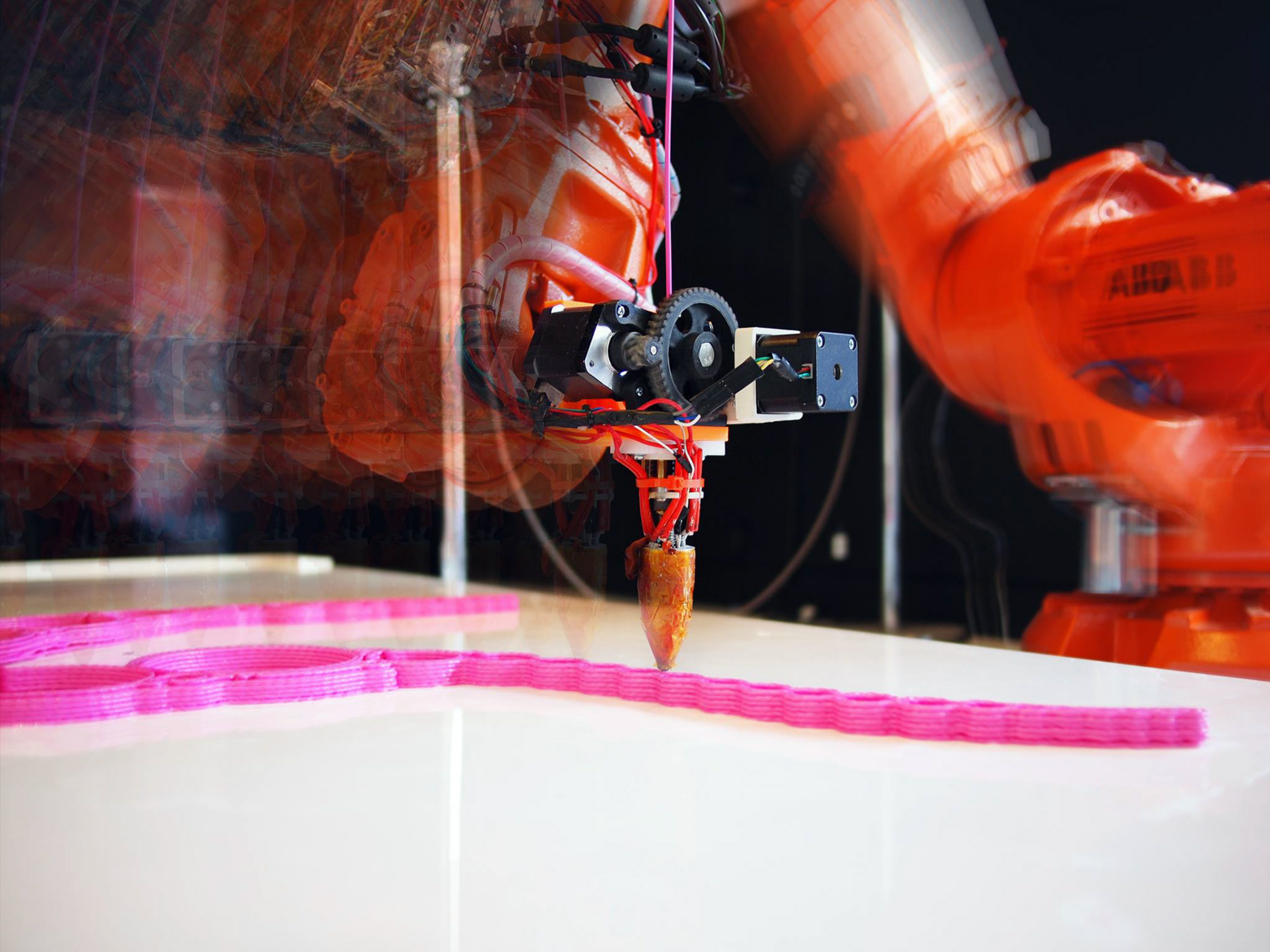
DESIGN EXCHANGE

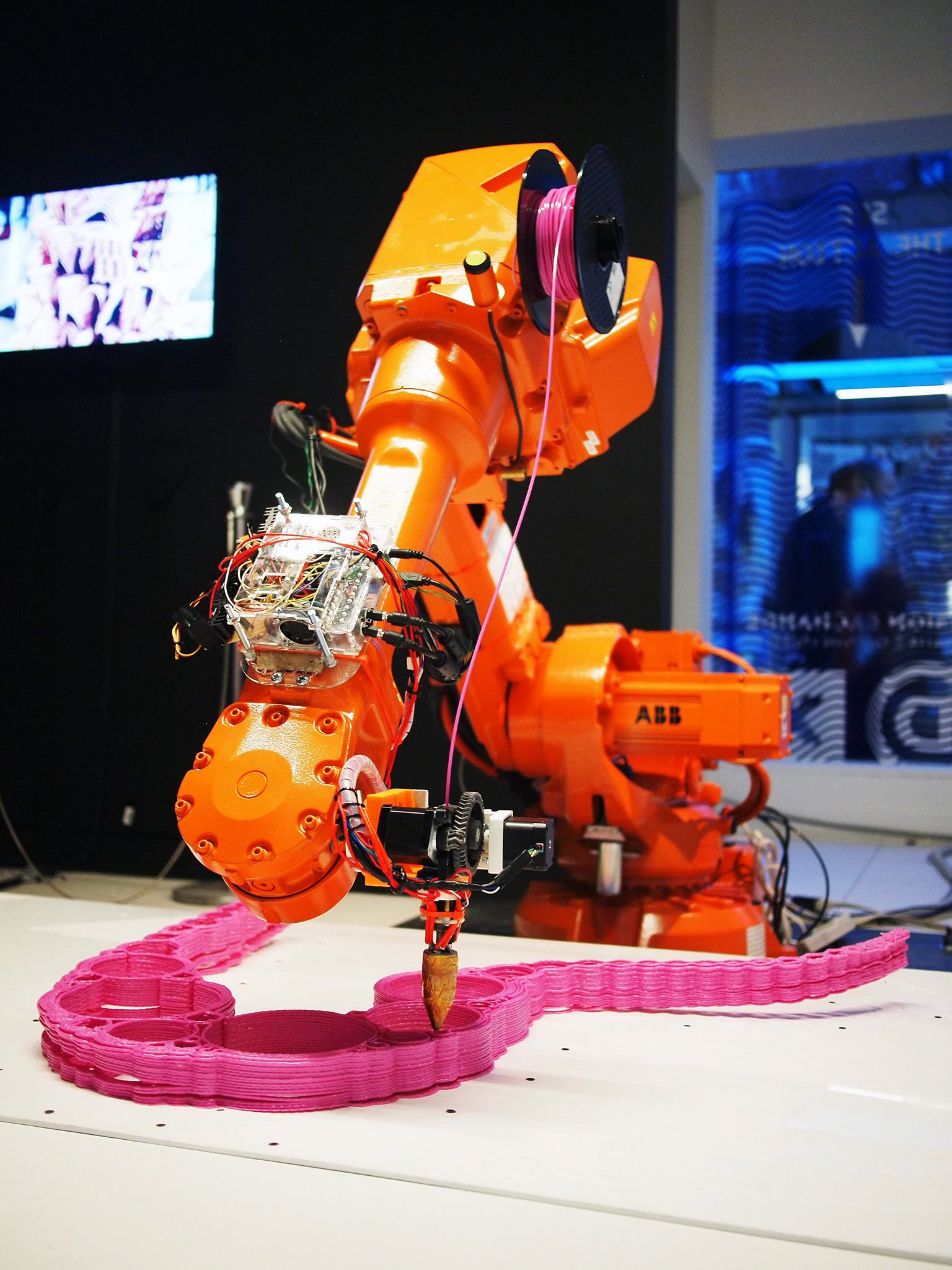


WARNING
EPE
4824008









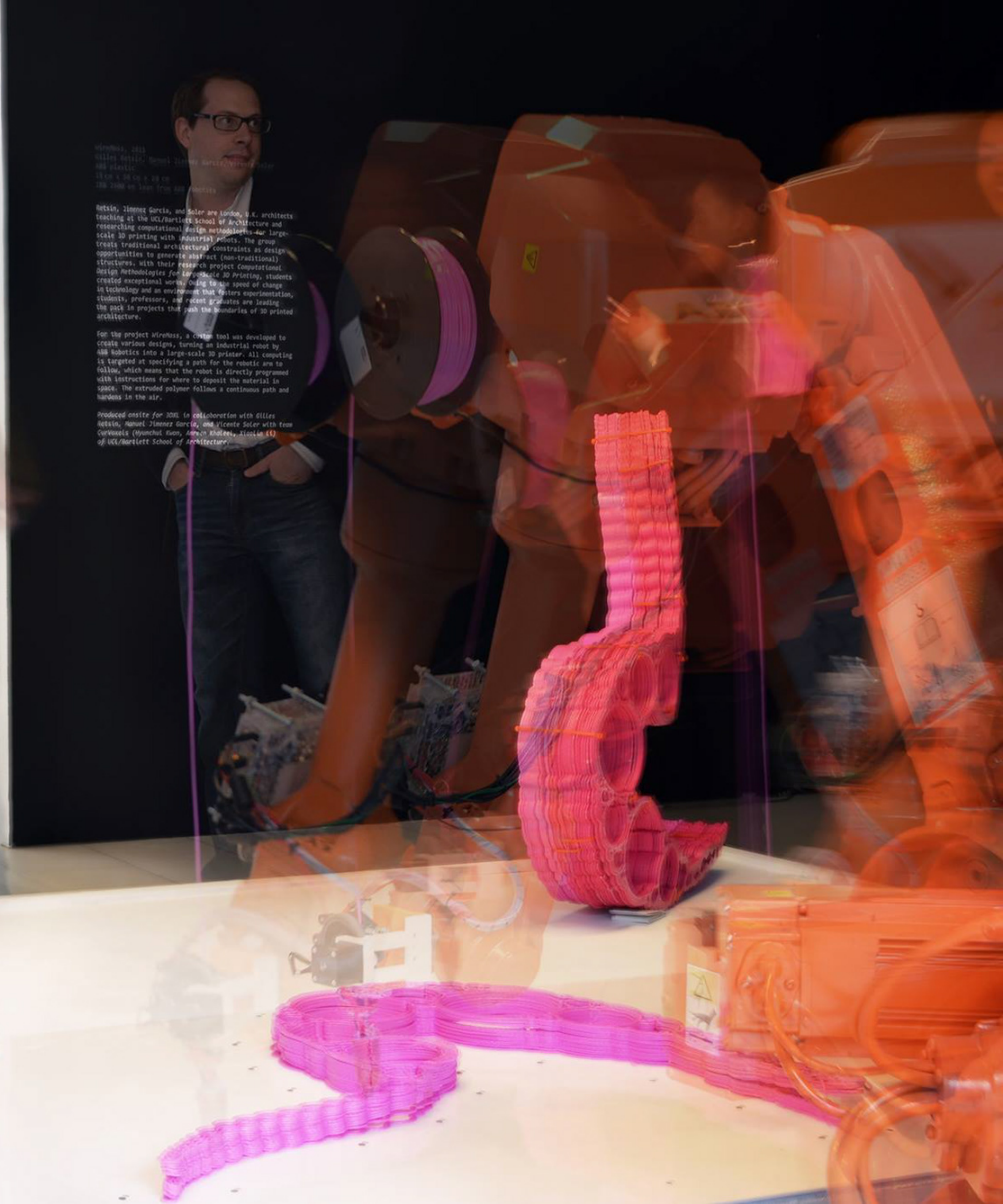


AirMass, 2011
Dillon Heston, Manuel Jimenez Garcia, Vicente Soler
and plastic
15cm x 30 cm x 25 cm
The 2000 cc laser from the University

Heston, Jimenez Garcia, and Soler are London, U.K. architects teaching at the UCL/Bartlett School of Architecture and researching computational design methodologies for large-scale 3D printing with industrial robots. The group treats traditional architectural constraints as design opportunities to generate abstract (non-traditional) structures. With their research project Computational Design Methodologies for Large-scale 3D Printing, students created exceptional works. Owing to the speed of change in technology and an environment that fosters experimentation, students, professors, and recent graduates are leading the pack in projects that push the boundaries of 3D printed architecture.

For the project AirMass, a custom tool was developed to create various designs, turning an industrial robot by 6th Robotics into a large-scale 3D printer. All computing is targeted at specifying a path for the robotic arm to follow, which means that the robot is directly programmed with instructions for where to deposit the material in space. The extruded polymer follows a continuous path and hardens in the air.

Produced onsite for 2011 in collaboration with Dillon Heston, Manuel Jimenez Garcia, and Vicente Soler with from Curvovoxels (Myunchul Kwon, Armin Khateri, Aislinn O'Connell) of UCL/Bartlett School of Architecture.





WireMass, 2015

Gilles Retsin, Manuel Jimenez Garcia, Vicente Soler

ABS plastic

15 cm x 50 cm x 50 cm

IRB 2600 on loan from ABB Robotics

Retsin, Jimenez Garcia, and Soler are London, U.K. architects teaching at the UCL/Bartlett School of Architecture and researching computational design methodologies for large-scale 3D printing with industrial robots. The group treats traditional architectural constraints as design opportunities to generate abstract (non-traditional) structures. With their research project *Computational Design Methodologies for Large-Scale 3D Printing*, students created exceptional works. Owing to the speed of change in technology and an environment that fosters experimentation, students, professors, and recent graduates are leading the pack in projects that push the boundaries of 3D printed architecture.

For the project *WireMass*, a custom tool was developed to create various designs, turning an industrial robot by ABB Robotics into a large-scale 3D printer. All computing is targeted at specifying a path for the robotic arm to follow, which means that the robot is directly programmed with instructions for where to deposit the material in space. The extruded polymer follows a continuous path and hardens in the air.

Produced onsite for 3DXL in collaboration with Gilles Retsin, Manuel Jimenez Garcia, and Vicente Soler with team CurVoxels (Hyunchul Kwon, Amreen Khaleel, Xiaolin Li) of UCL/Bartlett School of Architecture.

