## **RCC3D Major Facilities**

Equipment Name	Location	Photo	Feature 1	Feature 2	Feature 3	Feature 4	Feature 5
CyBe Large-scale Movable Robotic Arm Concrete Printer	U005		A mobile concrete printer with movable crawle suitable for printing on multiple locations.	mm (W) crawler with Robot Arm reaching a distance of 3.2m	The system includes a mix pump system which pumps the mortar through a concrete hose to the robot arm for printing at the programmed location.	An extendable hydraulic feet supporting the printer provides good stability during printing and increases the total printable height.	The robot is being controlled by a control unit and CyBe software with 3D model slicing functions
Large Scale Gantry Type Concrete Printer	U005		Computer-controlled 3D concrete printing system with 4 degrees of freedom (X, Y, Z, rotation of printer head shaft)	× 2000 mm (W) × 2000 mm (H)	Equipped with both standard and advanced printing nozzle (including a mini scale material mixer near the outlet) allowing users to add liquid form additives to the materials during printing.	The system also includes a continuous scale adjustable by user to control the material volume flow rate	The printing nozzle can be connected to an integrated mix-pump system featuring a quick-release mechanism for easy separation and cleaning.
Desktop Gantry Type Concrete Printer	U005		Print size: 500 x 400 x 300 mm Positioning accuracy: 0.08mm XY axis movement speed: 1~60 mm/s Z axis movement speed: 5~20 mm/s				
CONCR3DE Binder Jet Printer	U005a	200 000	The 3D printer supports different powder types or binder material, including but not limited to Granite, Limestone, Marble, Ceramic mixes, Cementious material, Sand, Stone waste, Wood pulp, or any self-developed material for study in the area of additive manufacturing.	printing volume up to 450mm x 450mm x 250mm also equipped with	control system for photopolymer curing. Heater and IR heater Control system is also included.	Associated facilities for post- processing such as depowdering connected with vaccum and curing tank is also provided	