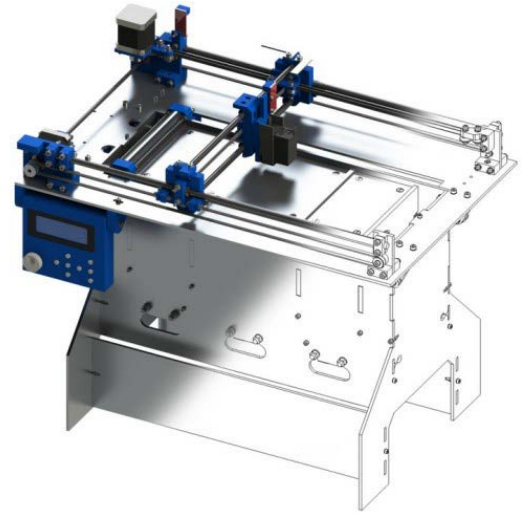


PlanB – binder jetting 3D printer

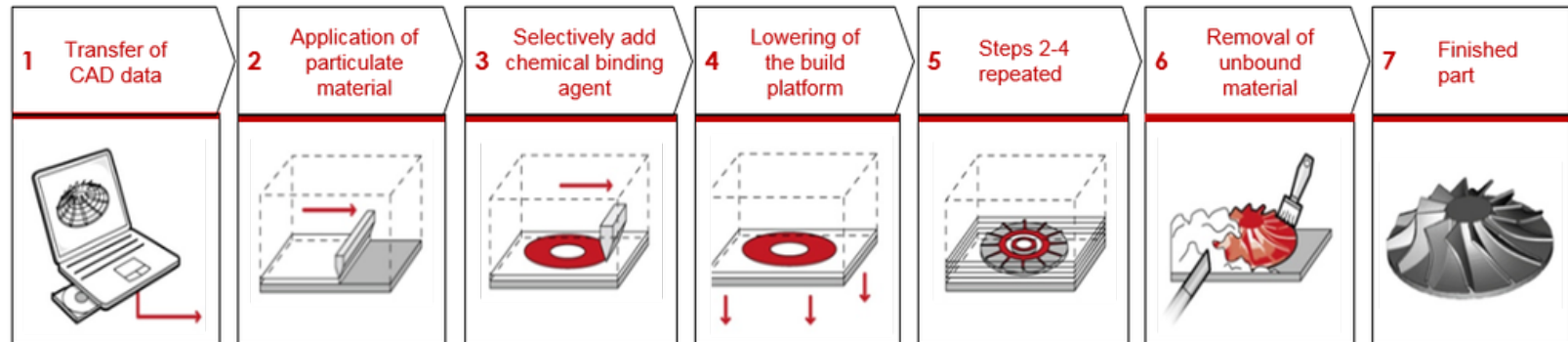
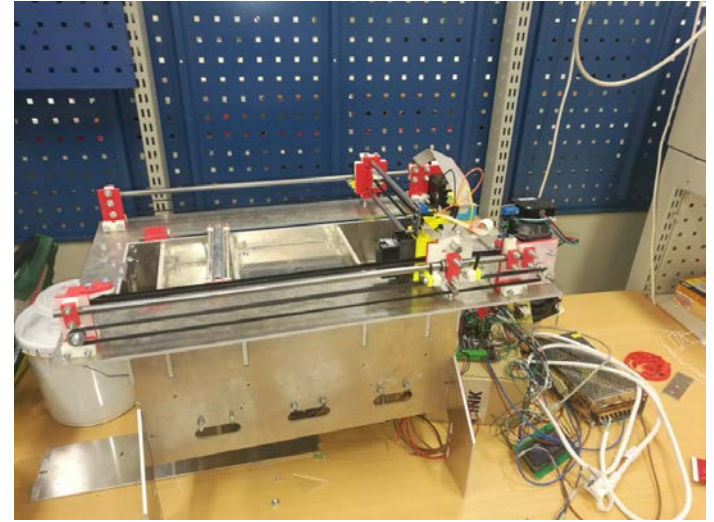
Upgrading a binder jetting system of existing 3D printer and its control system.

1. Develop a binder jetting system based on ink-jet or similar solution to selectively bind layers of foundry sand with resolution min. 96dpi.
2. Develop a control system to operate the 3D printer mechanism – both existing sand spreading and new binder jetting.



PlanB – expected result

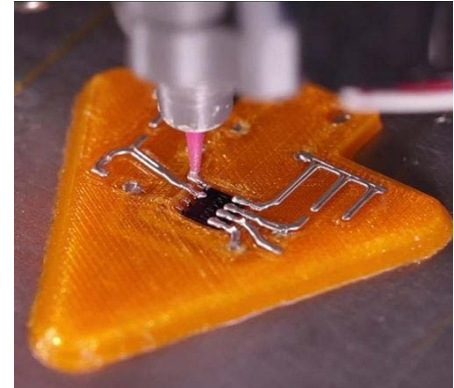
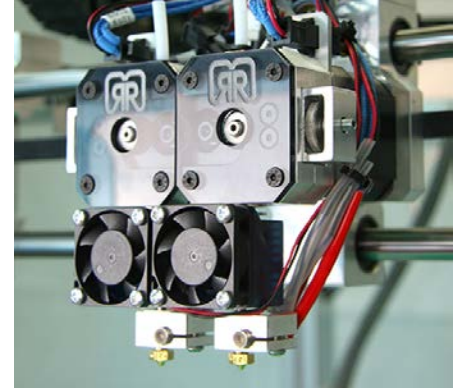
As a result of the work, using existing frame of binder jetting machine (pic below), it can be used to bind foundry sand into 3D geometric shapes.



Multimaterial extrusion

Modifying existing 3D printer to use two materials so that one material is existing thermoplastic but other material is conductive.

1. Development of conductive material syringe or filament nozzle installed beside polymer nozzle on a 3D printer.
2. Design and print a part with electric leads (and function) as part integral features.



Multimaterial – expected results

As a result the group can print designs where electronic leads are integrated into components and component has some electric function built into it.

