## **Magneto-Hydrodynamic Experiment for Metal 3D Printing**

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| **Aim** | **Methodology** | **Results** |
| * Designed a compact metal extruder that melts metal via induction heating and extrudes it using magneto-hydrodynamics (Lorentz force). | * Modeled key components in **SolidWorks** (using swept features and 3D sketches). * 3D printed parts with **Ultimaker Cura**. * Assembled the experimental rig for testing the magneto-hydrodynamic extrusion process. | * The experimental setup is successfully assembled and ready for data collection. |

 