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

|  |  |  |
| --- | --- | --- |
| **Aim** | **Methodology** | **Results** |
| * To design 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. |

 