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.