

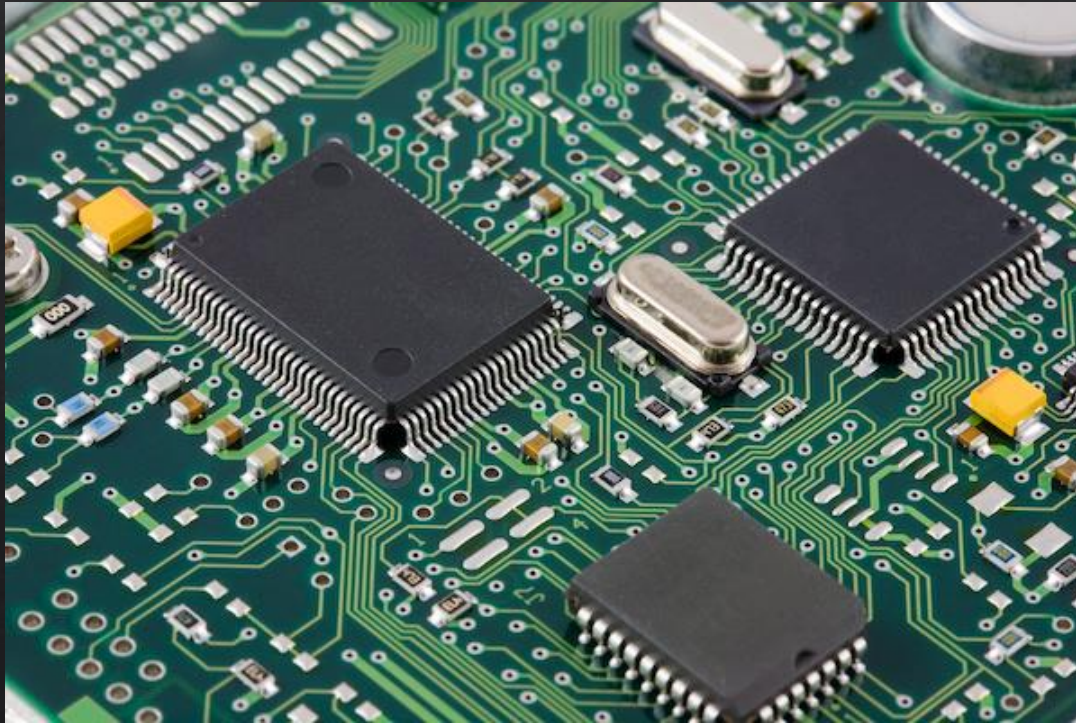
Thin Metal Film Physical Vapor Deposition System

Matthew Bowman

Brandon Hoffman



Motivation

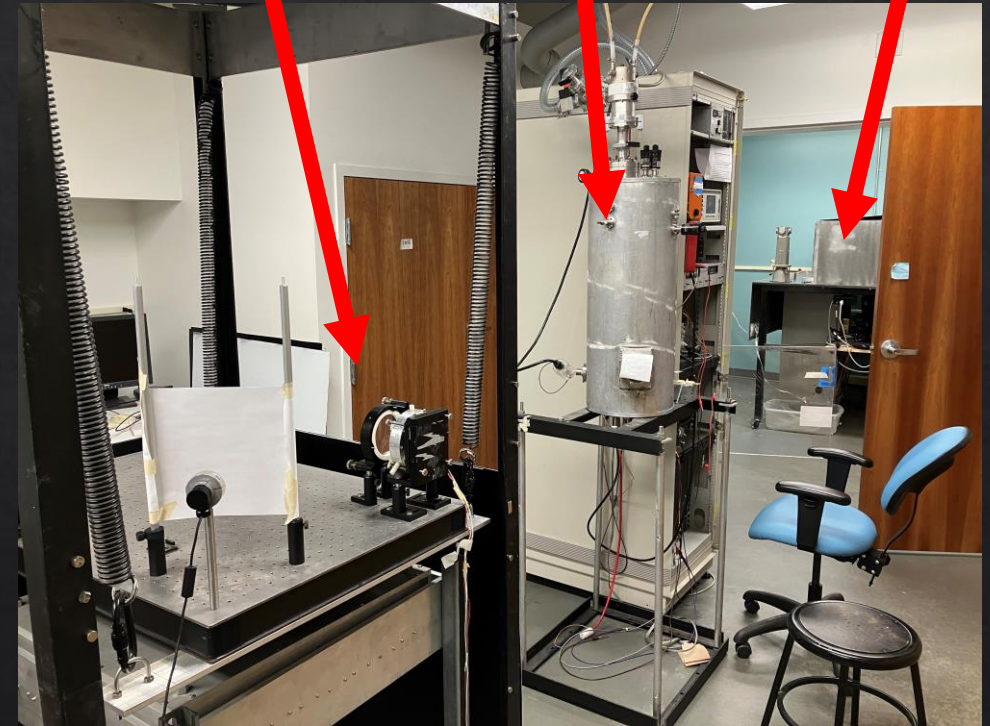


<https://www.hallmarknameplate.com/basics-printed-circuit-boards/>

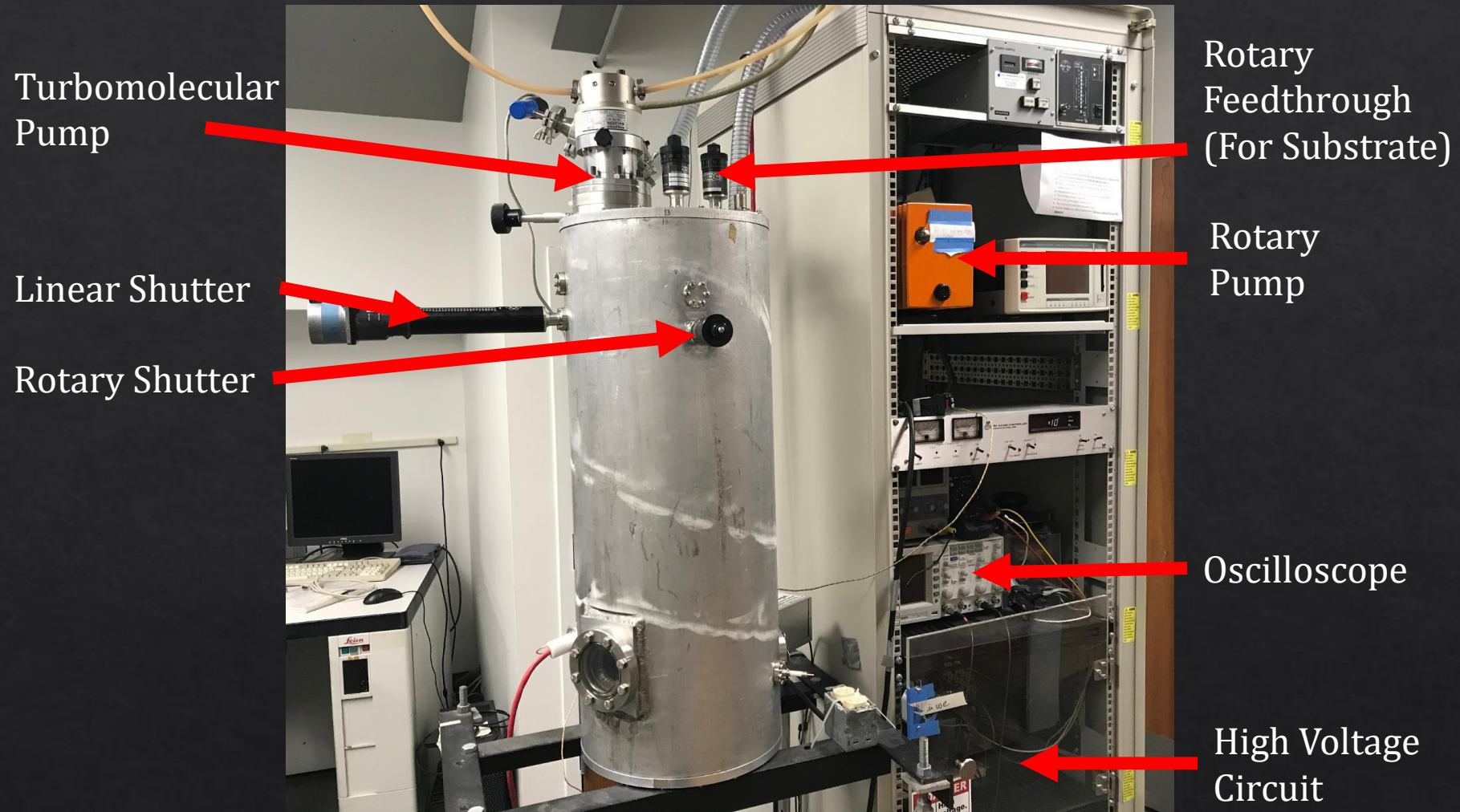
Interferometer

Deposition
Chamber

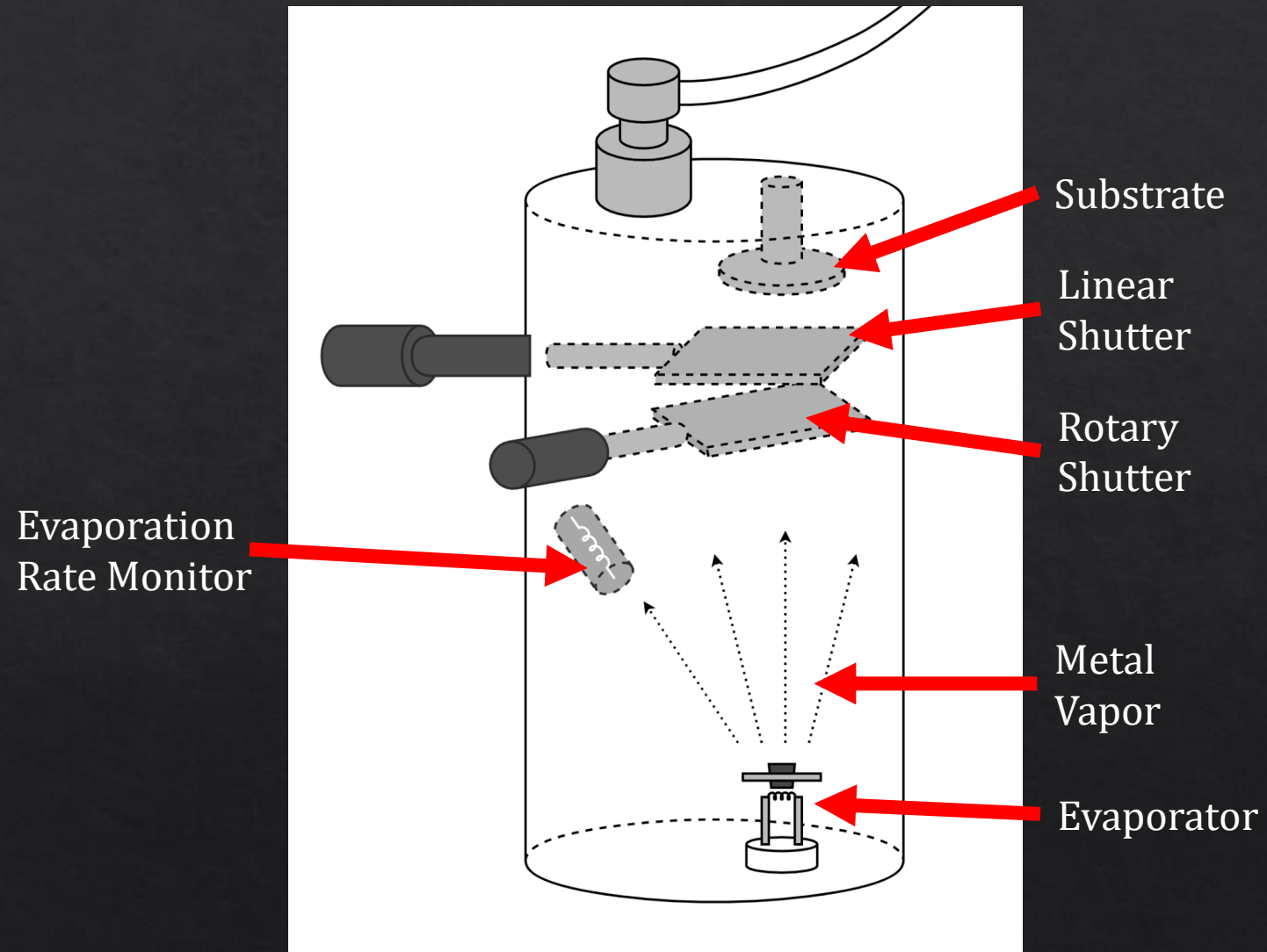
X-ray
Diffractometer

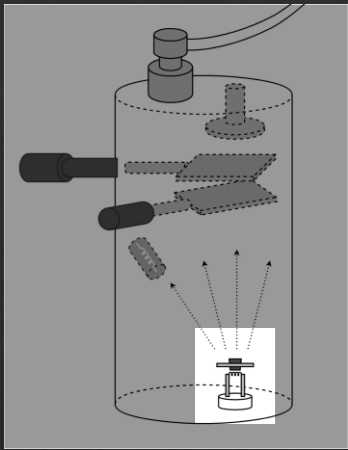


External Overview



Chamber Interior





Evaporator

Previous

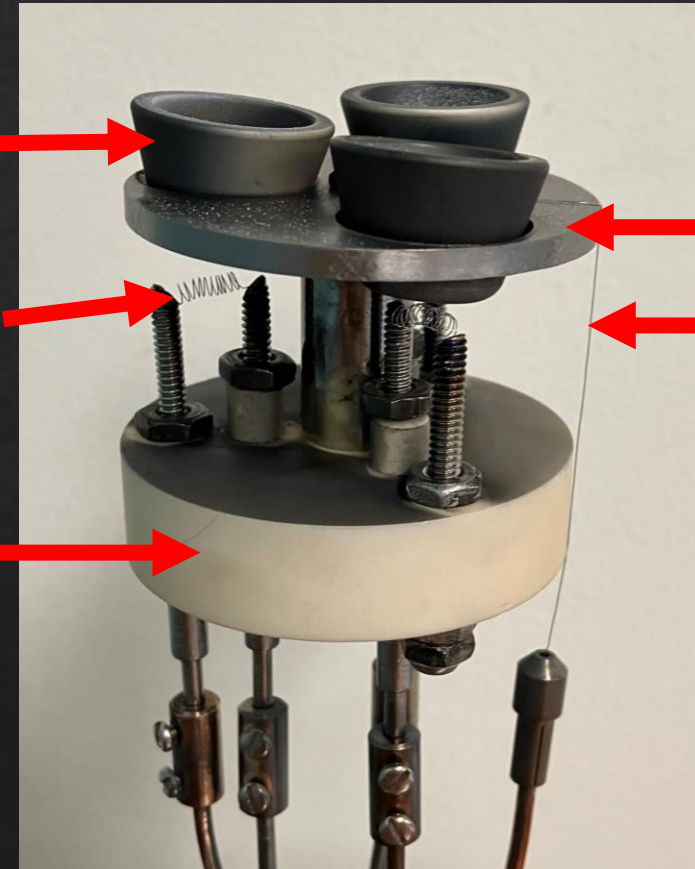


Graphite
Crucible

W Filament

Ceramic
Base

Current

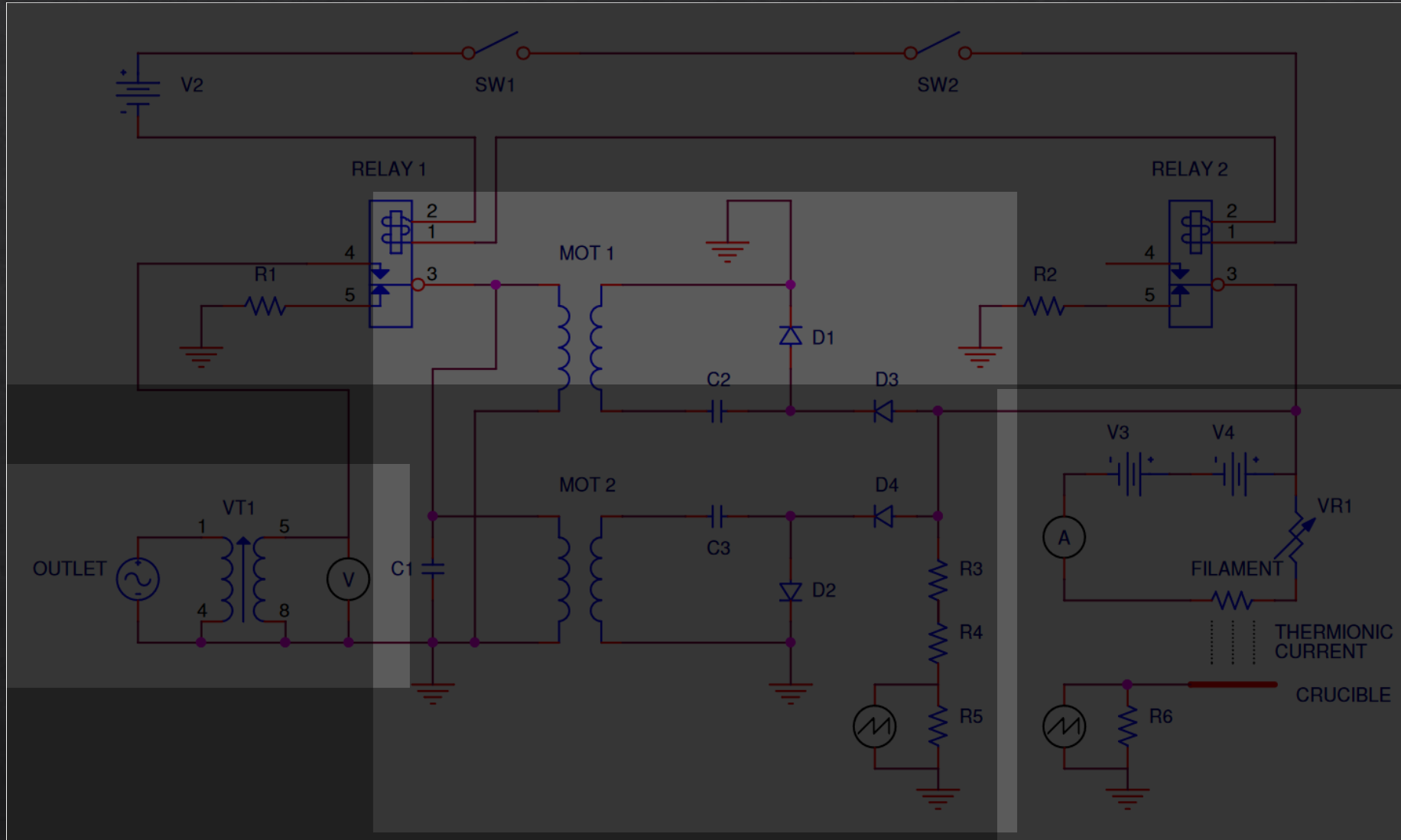


Ta Crucible
Holder

Grounding
Wire

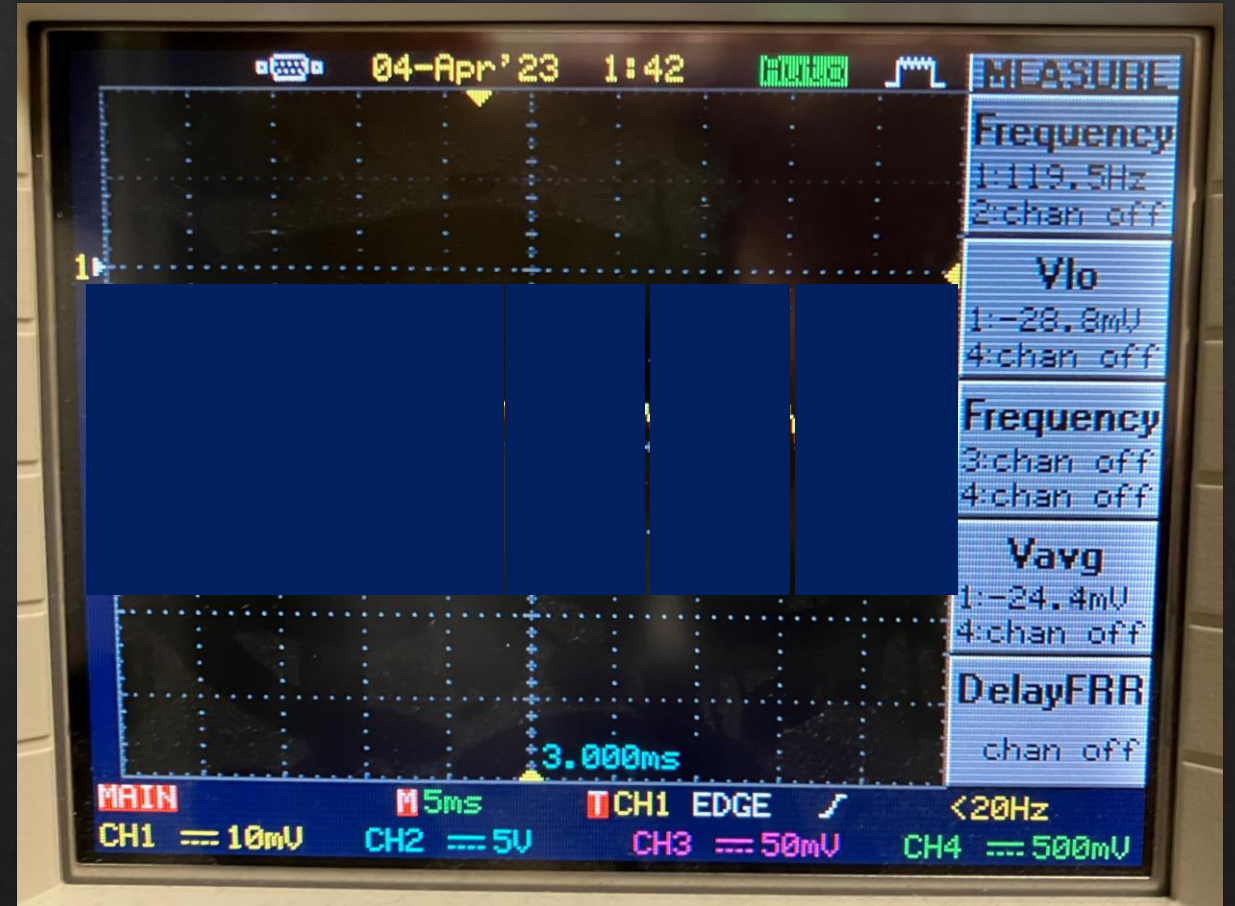
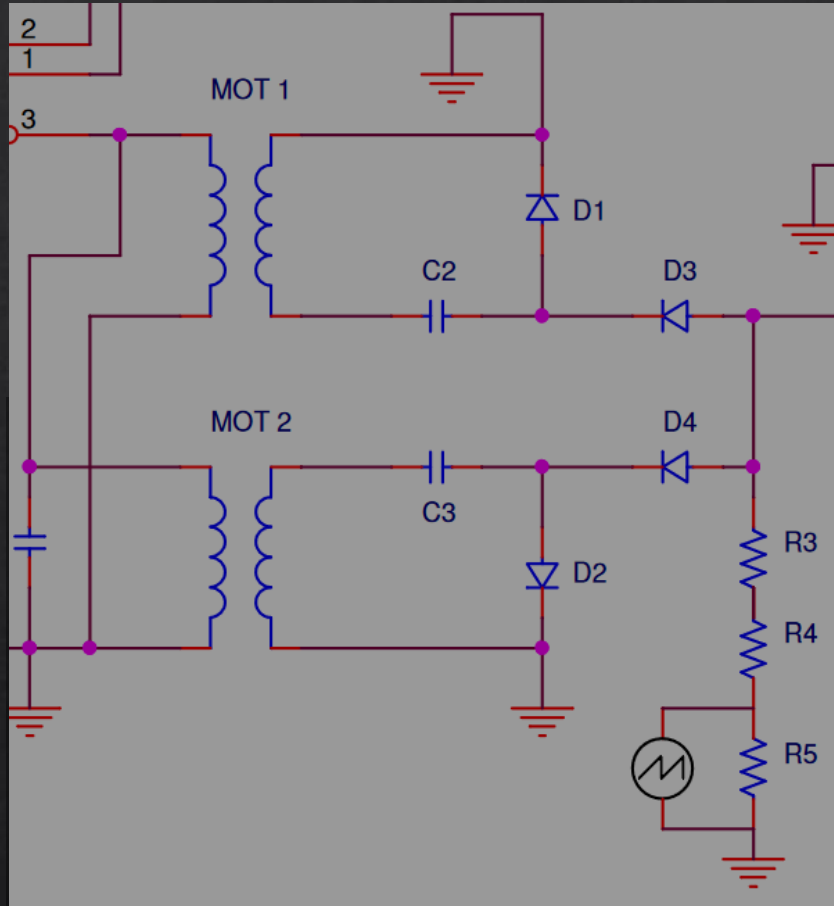


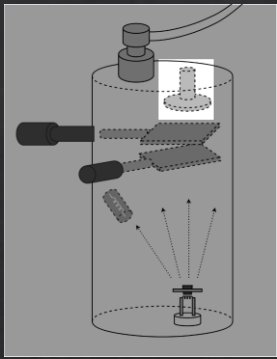
High Voltage Circuit



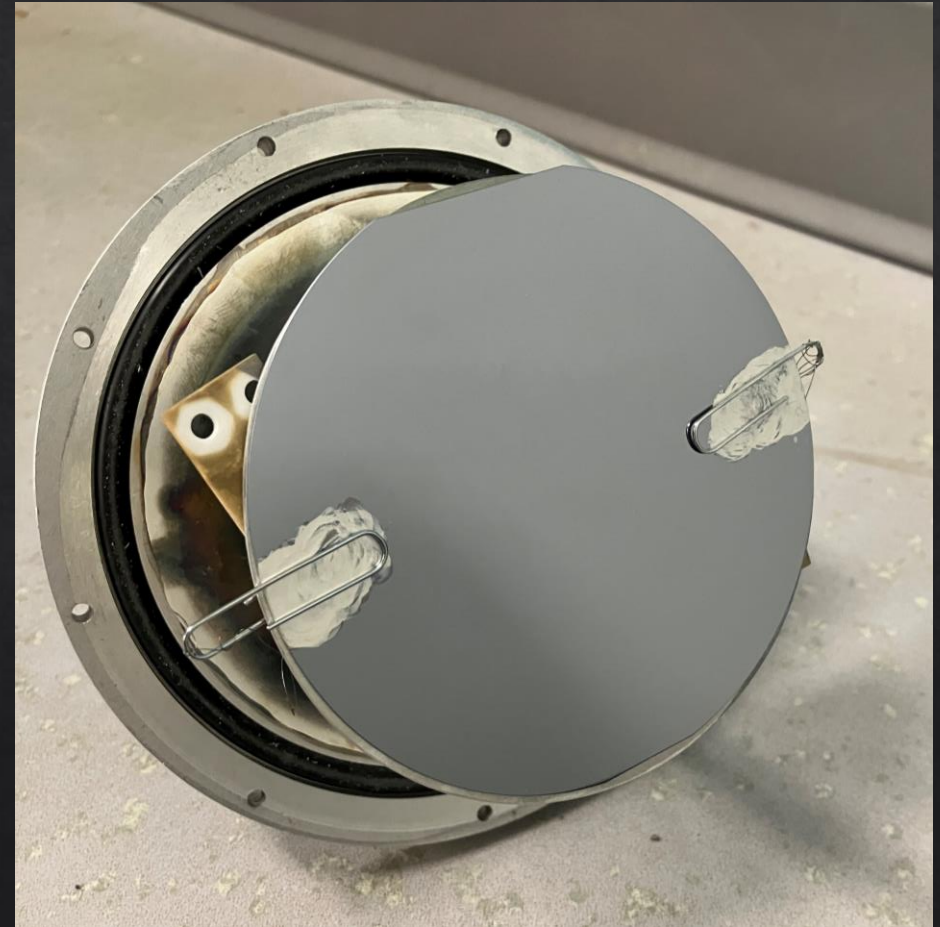


Filament Voltage

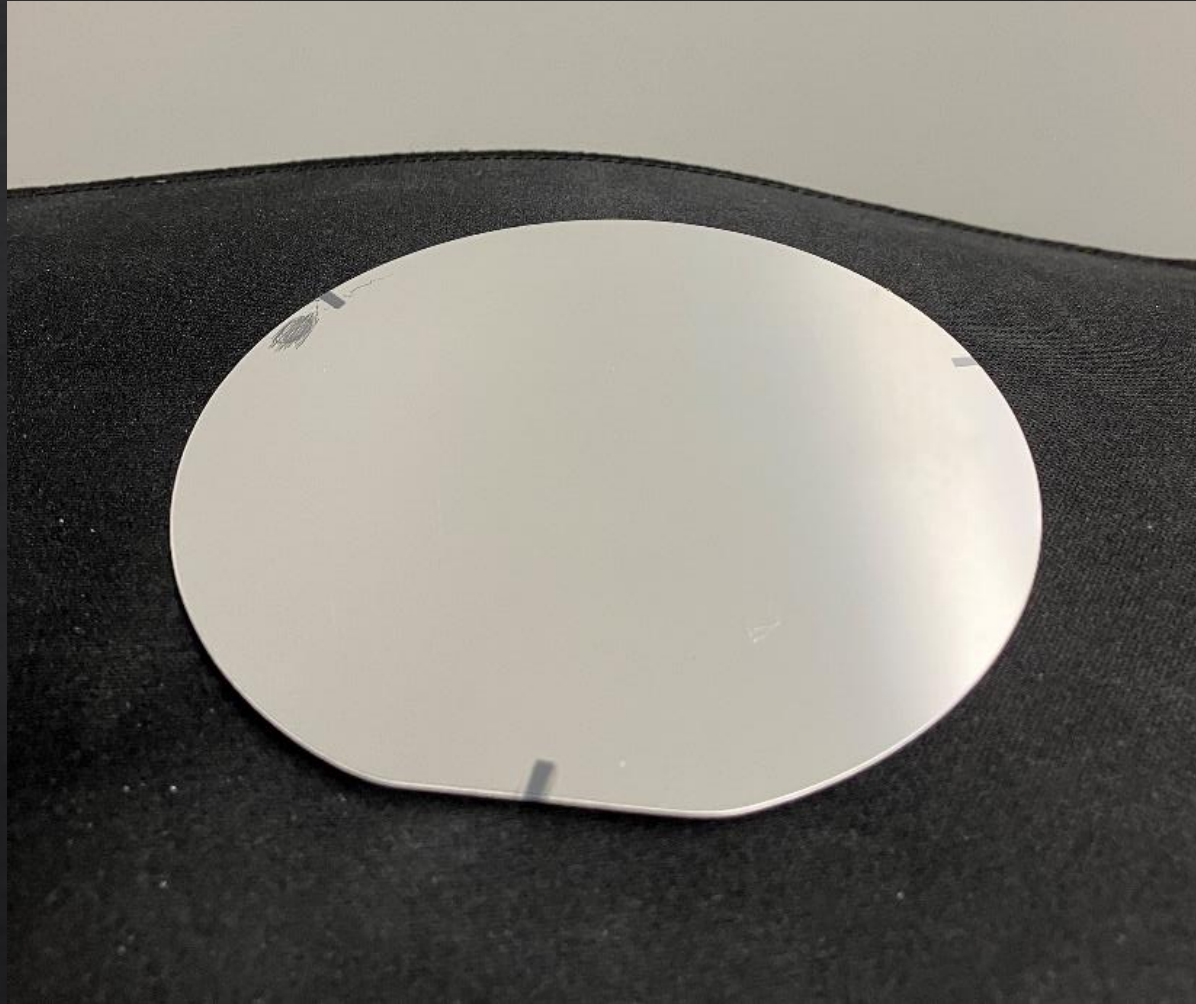


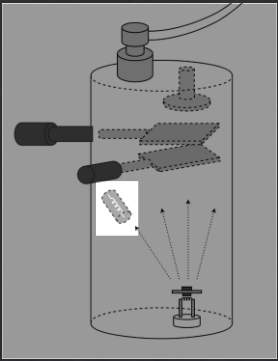


Substrate & Holder

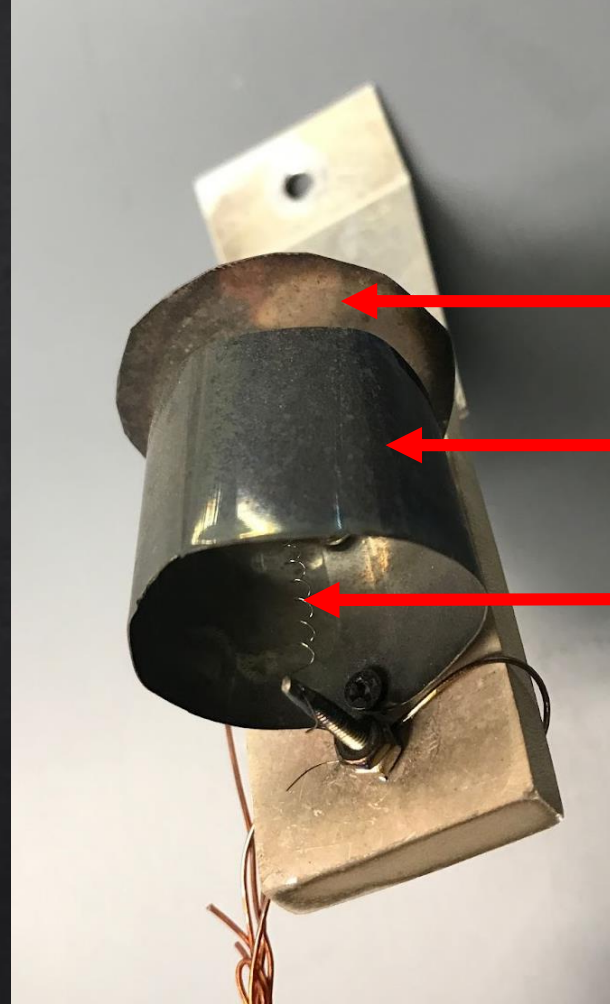


Thin Film





Future Work

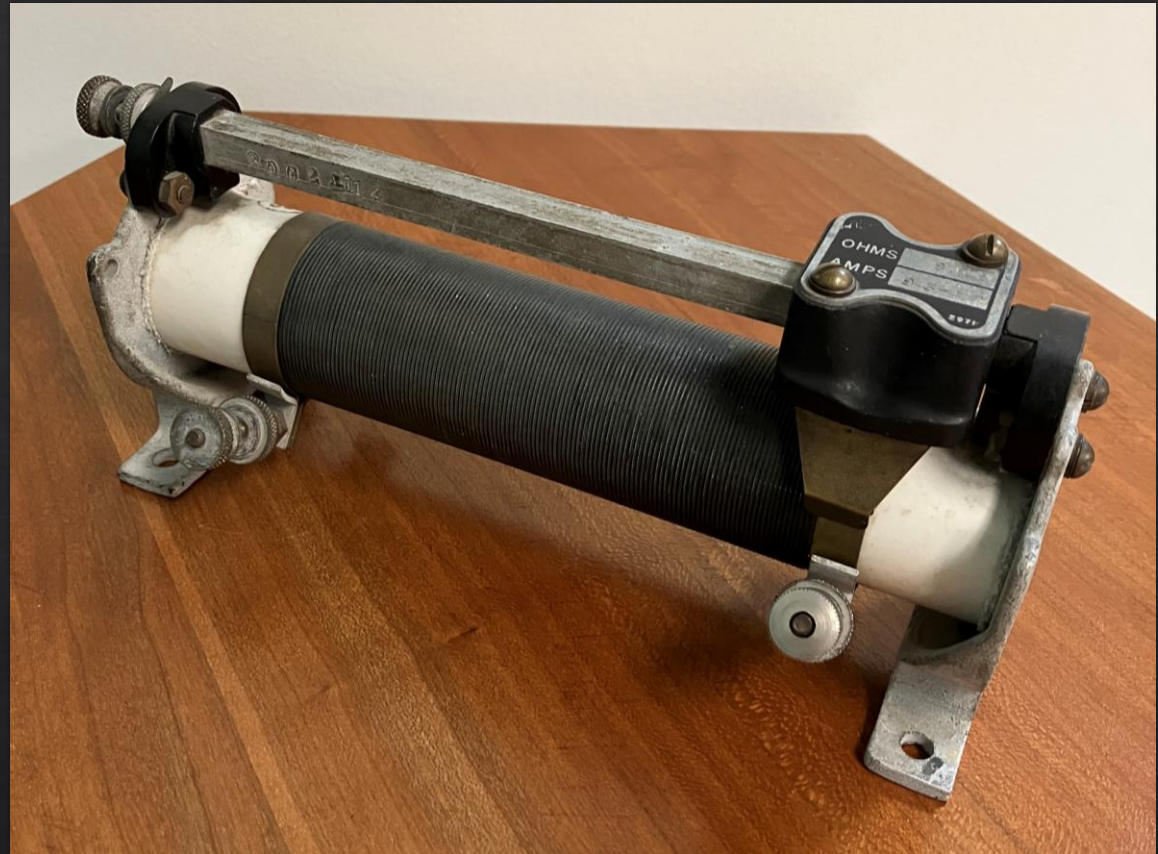
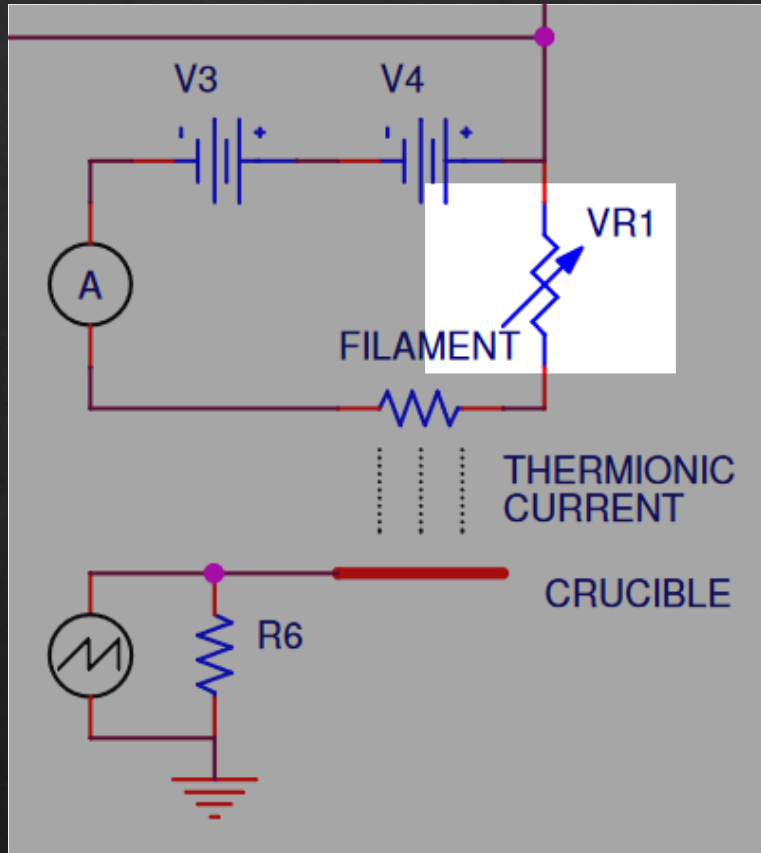


Collector
Plate

Anode

Filament

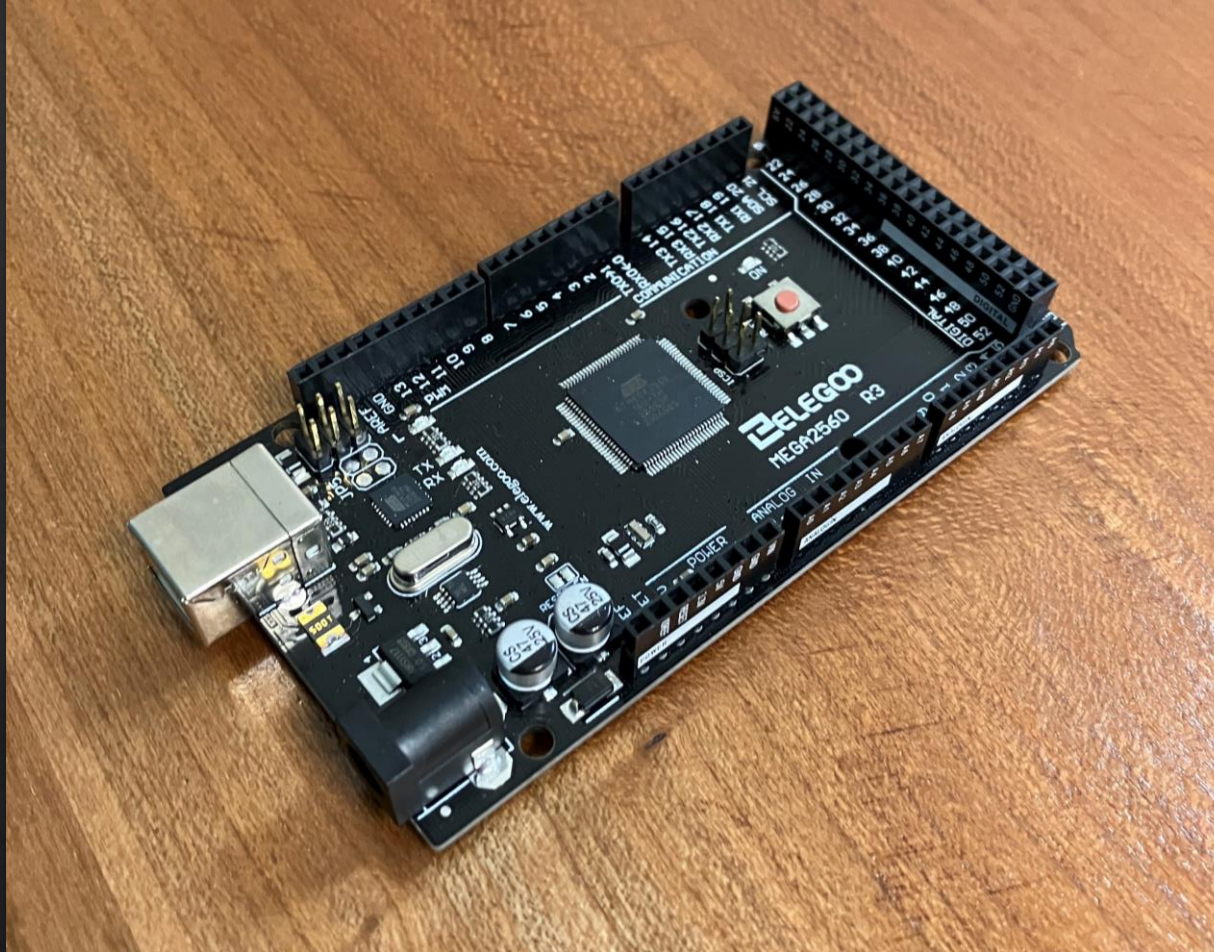
Future Work



Future Work



Future Work



Q&A