Microwave-Assisted Separation of Fuel Feedstocks from Waste Streams

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Research Goals:
Build a prototype steady-state microwave reactor, that can separate oil-water emulsions from Wastewater streams.
• Total Budget used: ≈$600
• Current status: Microwave reactor has been built (shown on the right), but more testing and configuration is needed before we can test the reactor’s demulsification efficiency
Research Results so far

- The reactor has been built and tested with water.
- The reactor can run at steady state (shown on right) when assisted with 2 pumps by adjusting their speed settings.