

# Two Rate System

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# Problem

Potentially want a device capable of two different flow rates at the same time.

- Simple
- Useful

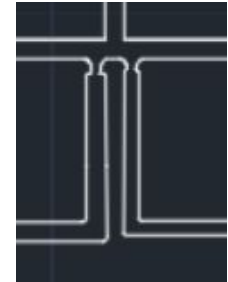


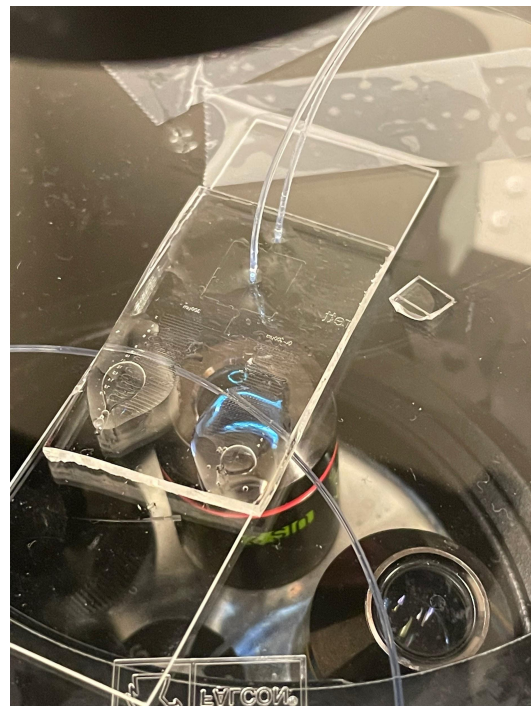
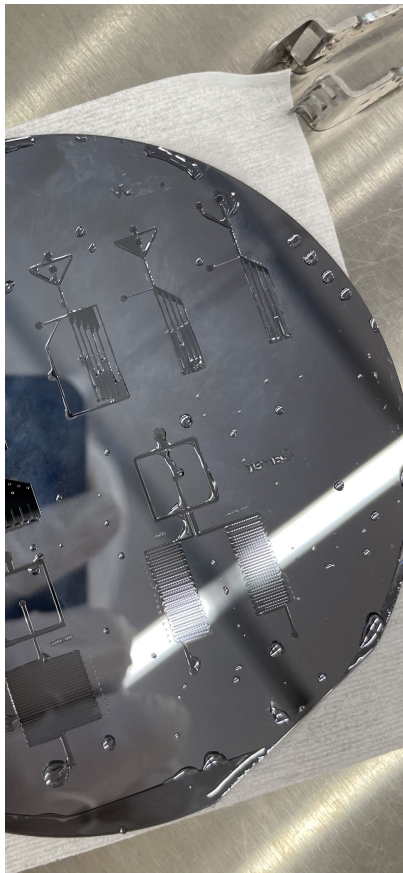
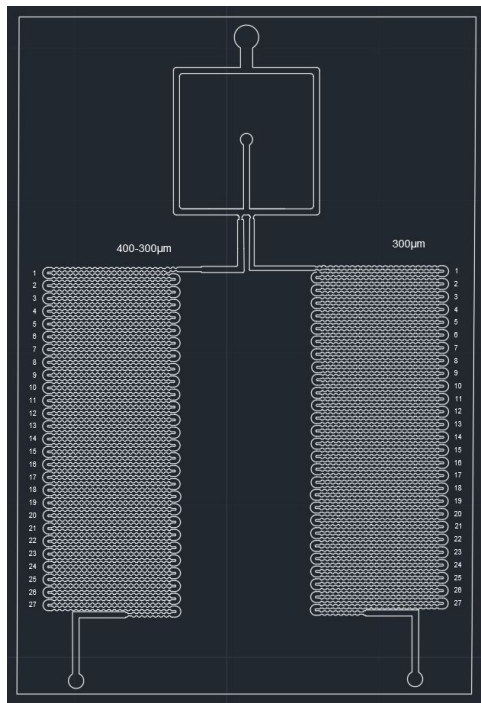
# Solution

## Two Channel Design

Different Diameters - Flows through smaller channel at a fast rate, and pressure builds up in the larger channel causing it to flow at a slower rate.

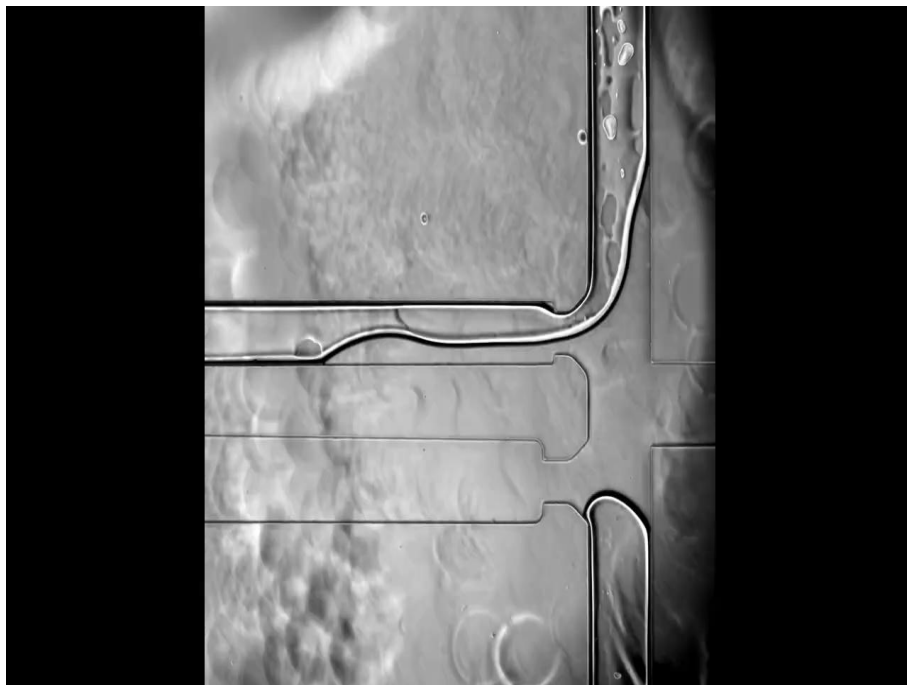
Based off of Dr. Guo's design given to us.







# Results





# Conclusion

Device worked as intended, although various improvements could be made.

Took a long time to get the device working, we think this is due to too much pressure buildup in the back end of the device.

Interesting to find a scaling factor/equation that could determine the rates that each will flow at depending on its diameter.