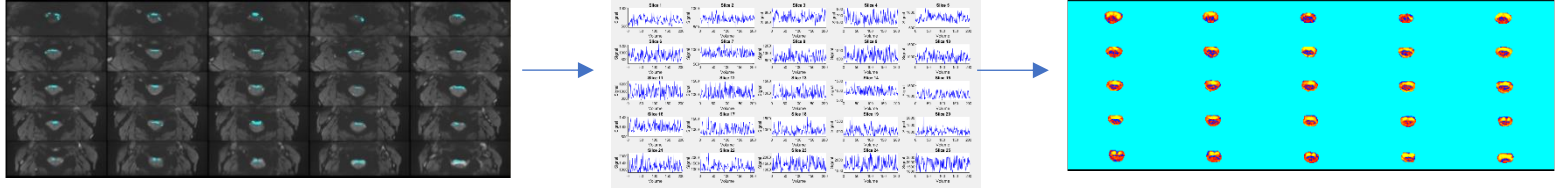


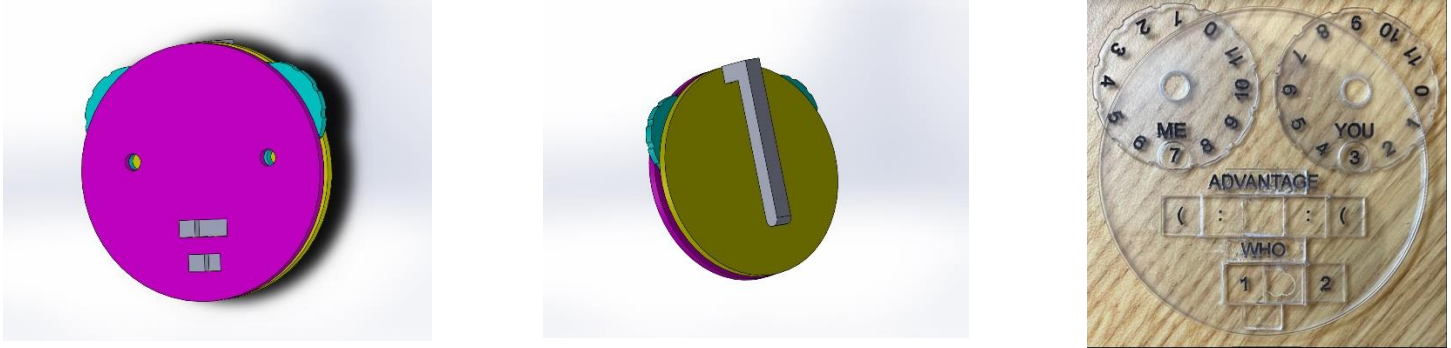
Sameer Faruquee Engineering Portfolio

Cerebrospinal Fluid Regressor for Spinal Cord Functional Magnetic Resonance Imaging – Bright Lab



- BASH/MATLAB scripts that uses statistical modeling to detect samples of cerebrospinal fluid in pre-processed functional magnetic resonance images of the spinal cord
- Scripts extract time-series data from cerebrospinal fluid samples and uses this data to reduce the effect of noise from cerebrospinal fluid pulsations in the final functional magnetic resonance image

The Pocket Pickle – Design Thinking and Communication II



- Simple and practical scorekeeper that allows for pickleball players to keep track of score, serve, and advantage
- Scorekeeper is designed to be handheld and features a clip to allow for transport

The Trash Collector Cage – Design Thinking and Communication I



- Trash collector features a high-density polyethylene frame to passively collect trash in the Chicago River
- Design includes a toothed mouth that prevents trash from flowing out of the cage
- Toothed mouth can be removed from frame using a peg-based system to facilitate emptying of the cage