Robot Assisted Transcranial Magnetic Stimulation - Force Interfacing Component

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- **Goals**
  - Automate assessment of subjective visual vertical after application of transcranial magnetic stimulation

- **Significance**

  - Potential to localize activity to regions of brain based on inhibition

- **Results**

  - Set up environment and created system simulation

  - Created robot control algorithm in simulation for unobstructed linear motion with limited force feedback

  - Designed tool holder and force sensor-UR5 interface

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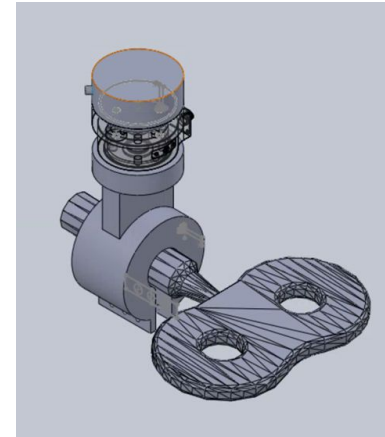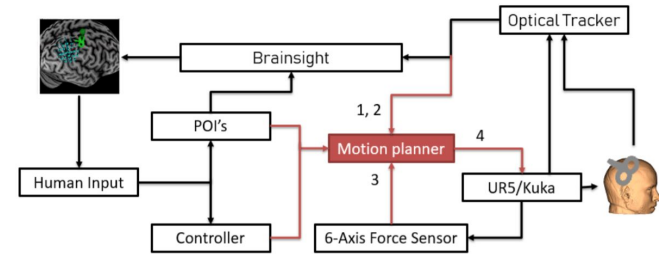
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- We implemented the systematic application of transcranial magnetic stimulation (TMS) over a grid area on the brain cortex
- We also created software to move along linear unobstructed paths in a grid-like fashion with simple force feedback
- A custom tool was designed and built to hold the TMS coil parallel to end effector

Red cone represents orientation of the coil relative to brain