Hysterectomy Simulation Trainer

- Develop and validate a multimodal sensor system to capture surgeons' performance on a hysterectomy simulator

- **What Students Will Do:**
  - Integrate visual markers, force sensors, video cameras, microphones, accelerometers, and eye gaze tracking into a simulator for hysterectomy
  - Synchronize multiple data sources and curate data
  - Deploy sensors system in simulated surgery

- **Deliverables:**
  - Multimodal sensing system for a hysterectomy simulator
    - Minimum: Video feed + visual markers + data synchronization
    - Expected: Minimum + microphone + accelerometer + eye tracking + data curation software
    - Maximum: Expected + force sensors + evidence of reliability of sensor system and validity of data collected using it

- **Size group:** 2

- **Skills:** Python, ROS, etc.

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