Neonatal Thoracoscopic Trainer

- Develop and validate a portable sensor system to capture surgeons’ performance on a neonatal thoracoscopic trainer

- **What Students Will Do:**
  - Identify data to collect on surgeons’ performance
  - Develop portable sensor system
  - Synchronize multiple data sources and curate data
  - Deploy sensors system in simulated surgery

- **Deliverables:**
  - Portable sensing system to capture surgeon’s performance
    - Minimum: Video feed + accelerometers
    - Expected: Minimum + sensors to track surgeons’ pose
    - Maximum: Expected + visual markers and/or eye tracking
  - Demonstrate reliability of synchronized data streams from multiple sensors
  - Test differences between and expert and novice surgeons using data from the sensor system

- **Size group:** 2

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

- **Mentors:** Daniel Rhee, MD; Jennine Weller, MD; Swaroop Vedula, PhD; Contact – drhee1@jhmi.edu, jweller5@jhmi.edu
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