Weekly Progress Report

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Team 2

Hassam Sultan, Kevin Golebieski, Michael Cahill
Budget

Remaining Budget: $1,689.70
Reverse Engineering

- Air Sensor
- Encoder
Air Sensor

- Pumpside hot runs at 4 vdc with respect to common line
- Doorside hot runs at 0 vdc with respect to common line
- No observable change when air in line
- Grounding doorside gives no effect
- Probing pumpside with ground clip floating cancels air alarm
Encoder

- Inductance of metal passing through bracket causes square pulse
- Pulse transmits rate that corresponds to rotation of stepper motor
Stepper Motor

- Obtained MID 7604/7602 4/2 axis stepper motor drive and NI PXI-7340 Motion Controller Bay
- Haydon Switch and Instrument, Inc. stepper motor and encoder hybrid
Software Development

- More States Added

Accessible Infusion Pump User Interface
Created by:
Michael Cahill, Kevin Golebieski, Hassam Sultan
University of Connecticut
Department of Biomedical Engineering

Press OK to continue
Press HOME at anytime to return to this screen
Software Development

- Functionality added to each button
- Each button stops while loop and also corresponds to the next state
SubVIs used to track variables and output calculated values to user
Work to be Done

- Receive service manual and bread board circuitry to connect pump assembly to LabVIEW
- Further LabVIEW development
- Begin stepper motor control and understanding
Questions

- Questions?