



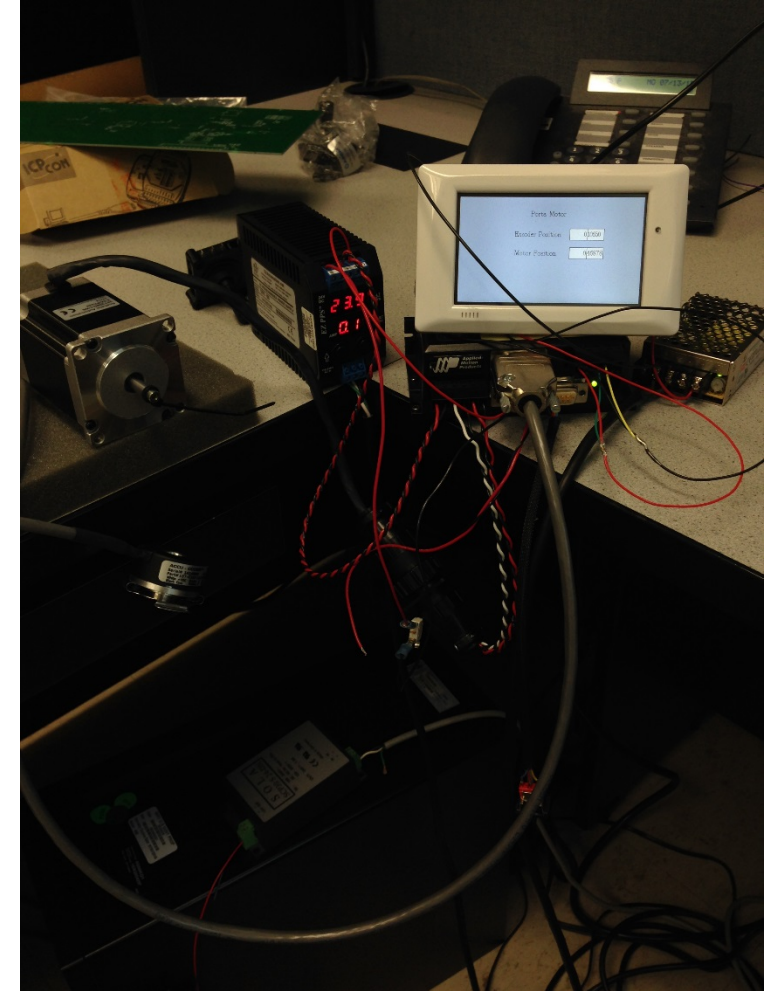
Motors, Displays, and Fibers

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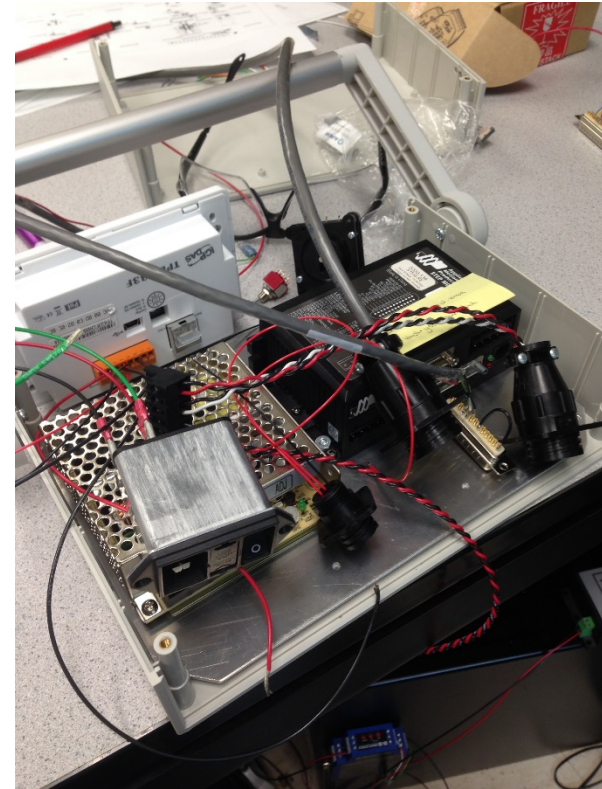
Stepper Motor Control System

- Test/Manual Override
- Current System Old
- Components
 - Motor
 - Encoder
 - Limits
 - HMI
 - Encoder/Motor Position, Limit Status
 - Power Supply
 - Motor Driver



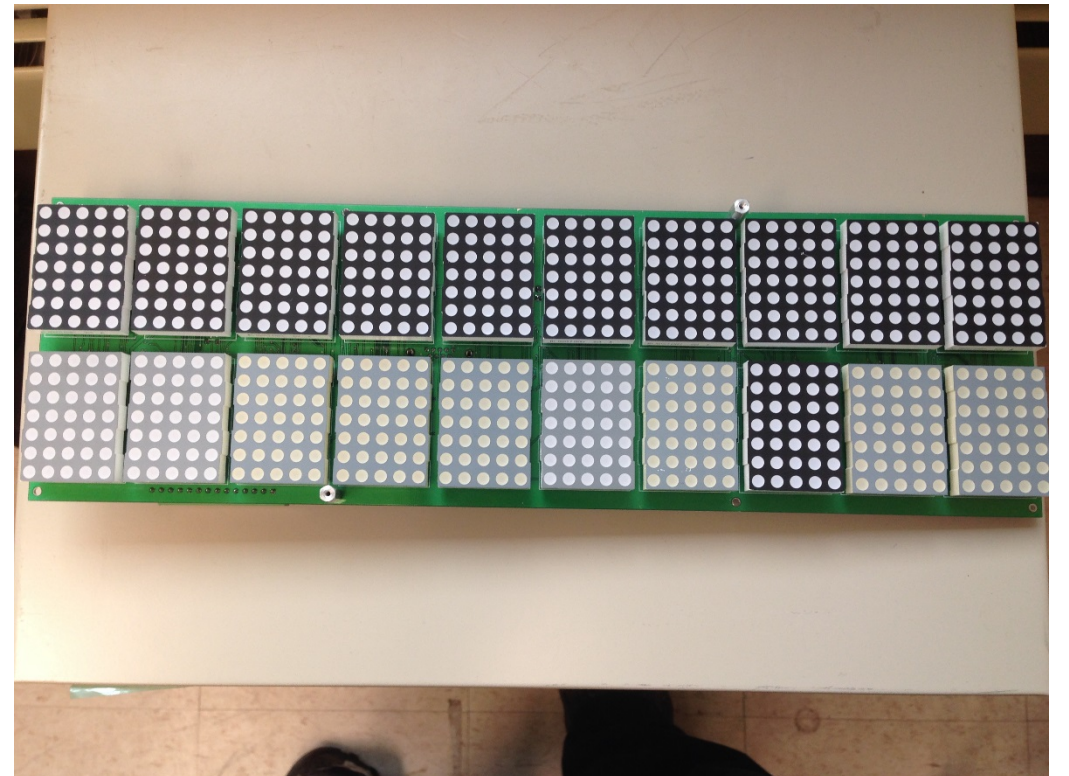
Stepper Motor Control System

- Production Process
 - Jogging
 - Serial Command Language and Q Programming
 - Limits
 - Wiring Limits through I/O DB-25 Connector and 24V Power Supply
 - HMI
 - RS-485 Interface
 - Modbus Protocol
 - Accessing Registers
 - Ladder Programming
 - Chassis
 - Bottom, Back, and Front Plate
 - Connectors



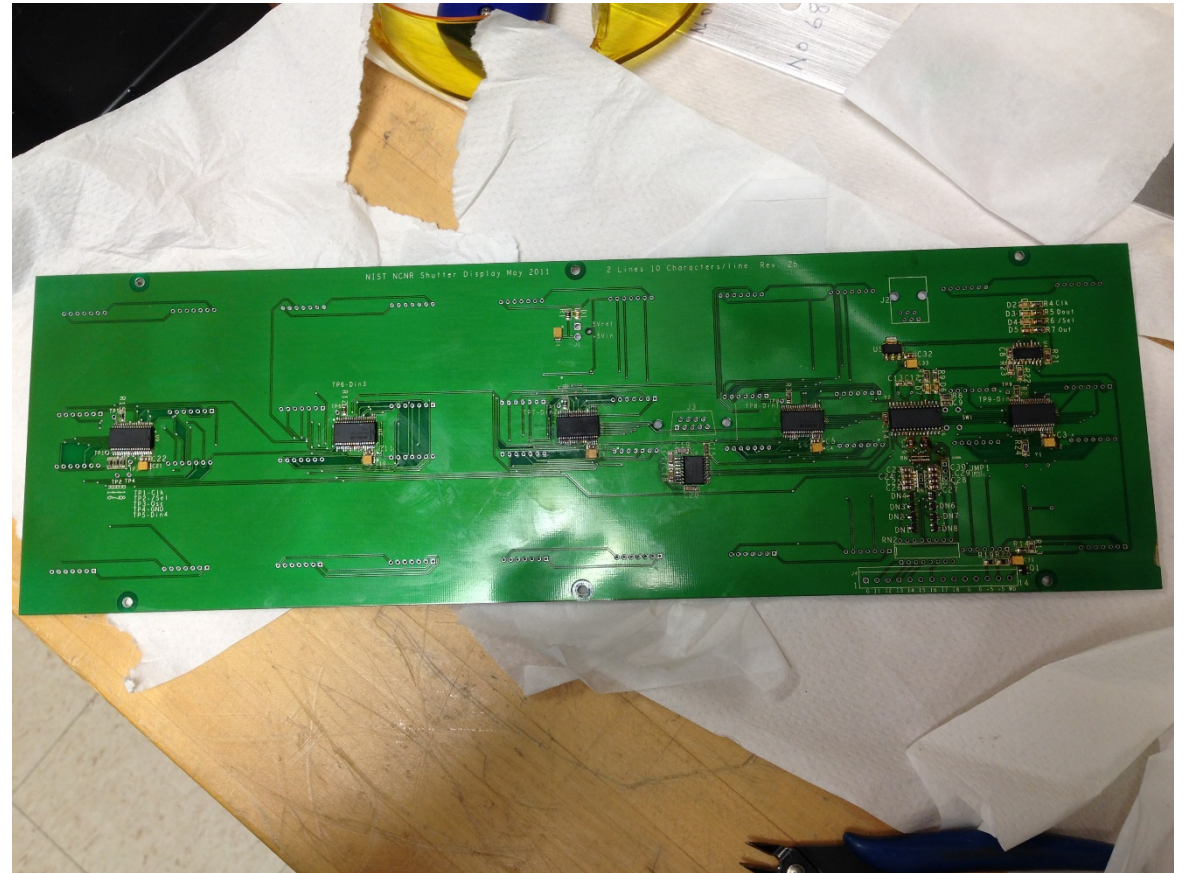
Display Boards

- Programmable Shutter Display
- Production
 - Solder Paste + Flux
 - Hot Plate
 - Bridge Repair/Touch-ups



Display Boards

- Why do we need new ones?
 - Old ones fading
 - Programmable
 - Sun Filter
 - More efficient
 - More Inputs

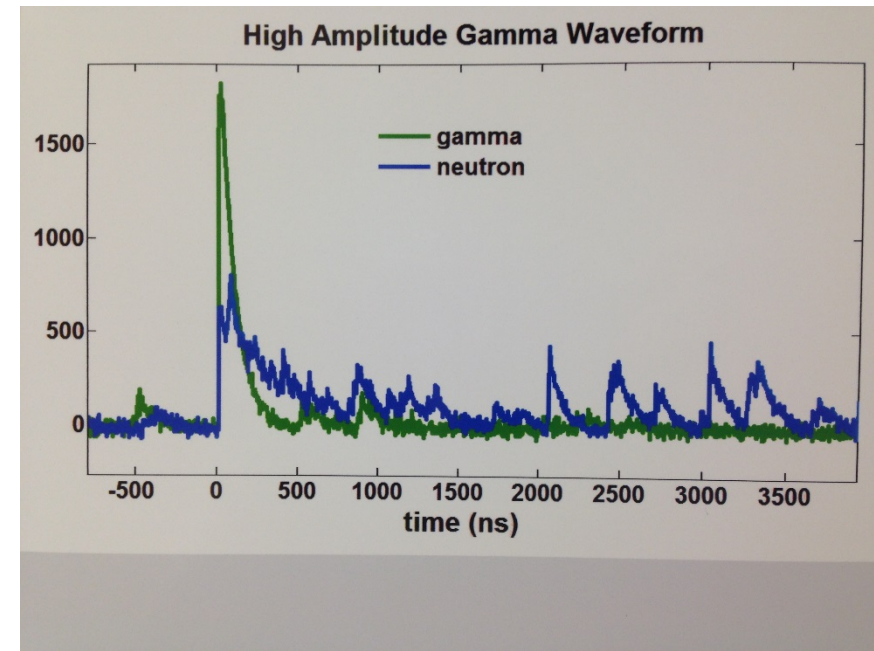
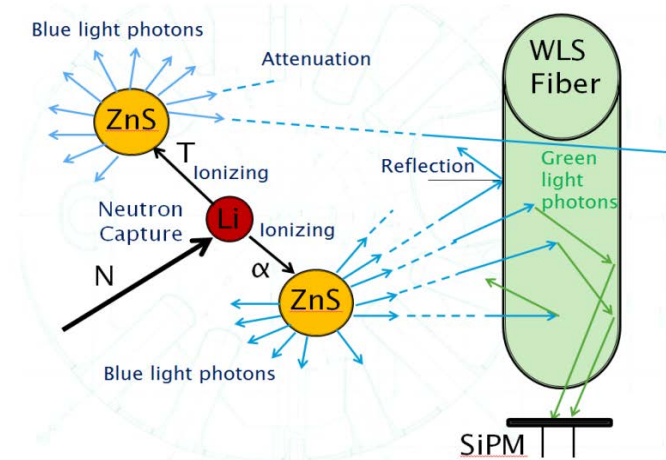


Scintillation Detector

- CANDOR Neutron Detector
- Detection Process
 - Lithium – 6
 - Zinc Sulfide
 - Wave Shifting Fibers
 - SiPM
 - PreAmp
 - Discriminator
- Current Detector
 - Helium-3

Detection Mechanism

6LiF:ZnS(Ag)



My Contribution

- Frames
 - Fibers
 - Polishing
 - 540 Triple Frames



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