

Magnet, Support and Infrastructure

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- **Engineering work for SoLID – same status**
- **JLAB ENP has allocated funds for FY18-20 to initiate work on the CLEO magnet as follows:**
 - 1. New I&C system - FY 18-Fy20**
 - 2. New Cryo Control Reservoir (CCR) - FY 19-20**
 - 3. Static testing of the magnet - FY 19**

Manpower and scheduling of this project is still in preliminary planning stage. The project is funded as capital equipment for the preparation of the CLEO magnet as a JLAB solenoid detector magnet.

1. New Instrumentation and Control System – FY18

- Design the system
- Identify hardware and software requirements
- Procurement
- Assemble and test the new I&C

2. New Cryo Control Reservoir – FY 19-20

- Design to interface w/ CLEO and JLAB ESR system
- Procurement
- Acceptance testing upon arrival-leak & pressure

3. Static Testing of the CLEO Magnet – FY 18-20

- Check out existing instrumentation in the cryostat
- HIPOT test the coil
- Evacuate the coil
- Leak test
- Pressure test

Additional Slide

Why a new CCR?

Most cost effective way to integrate CLEO into JLAB cryo system

Existing dewar:

- Incompatibility with ESR cryo system delivery pressure
- Problematic and inefficient LN2 interface

However it is possible to adapt the existing dewar system to ESR, but:

- Would require a local custom dewar and additional valve box
- Higher heat load
- Greater complexity
- Extra space required

The new CCR:

- More efficient
- Standardization with ESR cryo
- Standardization with I&C