## **Users and Vendors - Integration of Third-Party Systems**

## Introduction

Whether you're a contractor or a user group, the process of integrating hardware with the LCLS control system starts with a clear definition of the desired functionality. This definition should be developed in consultation with the control engineering Point of Contact, and the ECS team. Once the functionality is well understood, the Mechatronics Procurement Grades can be used as an interface control document, or specification for delivery of the system.

The Mechatronics Procurement Grades were developed for the L2SI project to provide language for LCLS, contractors and vendors to describe the additional controls related work to deliver a more complete and integrated component.

Full system integration at the highest level means it is remotely operable through the EPICS control system via a feature-complete GUI, and can demonstrate in an semi/fully-automatic fashion its engineering specifications (safety/ precision/ accuracy/ responsiveness).

Detailed requirements are available here: LCLS Mechatronics Procurement Grades

If you wish to discuss the further, please contact pcds-controls-l@slac.stanford.edu and we'll be happy to answer questions or set up a meeting.