

## Detailed Design Review Goals

- Finalize mounting method
  - Rigid mounting vs. damping with rubber vs. vibration isolators + analysis
  - With a full CAD model including material properties we can do a Creo vibration analysis (FEA)
  - Ensure solenoid valve axis are not in line with accelerometer
  - Price List for T-Studs and L-Brackets and 8020 Length
  - Price check rubber mat and Lorde vibration isolators?
- Mathematical Model
  - Cleared to purchase additional material and valves to meet flow cycle time requirements.
  - Price on 3/8ths and other Omega Valves (Safety and General Purpose)
  - Combination Plots of the various properties (Flow Coefficient, Orifice Diameter)
  - Model partial opening and closing of valves to fine tune the curve.
- CAD Modelling
  - Continue with assembly files
  - Create part numbers
  - Add material properties
  - Tolerances (Ask Machine Shop about meeting Dresser Rand Tolerance)
  - Drawings for machining
- Usage
  - Assembly instructions
  - Test Procedure (checklist)
  - Bolt Torques on sealing surfaces
- Future Testing for next semester
  - Pressure and Leak testing
  - Valve frequency
  - Calibration of vibrations (placing the rig on different surfaces or parts of the table)