

ID	Potential Failure Modes	Potential Effects of Failure	Potential Causes of Failure	Severity	Probability	Rank	Recommended Action
1	ADC Doesn't Provide a High enough Resolution	Controller Will be Unable to Read Pressure Value	Controller was Incorrectly Chosen	2	1	2	Select a Controller with at least 12 bit Resolution
2	Controller Output Cannot Drive the Stepper Driver Pack	Controller will be Unable to Automate the building and holding of the Internal Enclosure Pressure	Controller Cannot Provide the Necessary Control Signals	2	2	4	Select a Controller with an Appropriate Number of Outputs to Act as Control Signals
3	Controller Cannot Interface with Pressure Transducer	Controller will be Unable to Read Pressure Value	Output of the Pressure Transducer is not in terms of Voltage	2	1	2	Select a Pressure Transducer with a Voltage output between 0-5V
4	Controller Cannot Sample the Transducer Output Fast Enough	Pressure Reading will not Accurately Reflect the Internal Enclosure Pressure	Controller will not be able to Actuate the Electronic Valve Properly	2	1	2	Select a Controller with a Sample Rate of at least 500 Samples per Second
5	Controller is not Interfaceable with Labview	Operator will be Unable to Program the Test or Receive Feedback	Controller was Incorrectly Chosen	2	1	2	Select a Controller that is Labview Compatible