

# PID guide

## Updates to previous version

- **Removal of N2 manifold**

Previous setup for the nitrogen gas tank for pressurizing the system was replaced with a quick disconnect, and the nitrogen gas tank will be considered as separate from the test stand. It will be a separate N2 tank that will be connected to the test stand using flexible tubing to the quick disconnect.

- **Valves**

Valves for upper fuel and LOX sections specified for designated required system pressures.

- **Removal of igniter system**

Igniter system was removed due to difficulties in machining the engine given to us. It is now a separate external system from the test stand. It is now replaced with three way fittings with caps in case of future integration of an internal igniter.

- **Venturi meters**

The venturi meters were moved to before the main fuel and LOX valve due to the need for room for the required entry length for the flow to fully develop.