## **Prelab Questions**

1. What is the basic difference between an open and closed-loop control system?

Open-loop systems use processes or algorithms to directly generate their output states from their inputs. They, however, have no means of measuring the effects of these actions.

<u>Closed-loop systems use their own output as a secondary input and perform an action based on the error between the desired and current state. Also known as feedback.</u>

- 2. What does the acronym "PID" stand for? **Proportional, integral, and derivative.**
- 3. When does proportional control lose effectiveness? When the plant output nears the setpoint.
- 4. Did you watch the intro videos? Yes.