Unit 3.4 Control Systems Study Guide

Best Way to Study
- Go through slides in learn.vcs

Terms/Concepts:

- **VEX Code**
  - What is the "comment" purpose?
  - What are loop commands?
  - What does "when started" do?
  - What does "while" do?
  - What does "wait" do?
  - What does "wait until" do?
  - What does "forever" do?
  - Understand "if…then…else"
  - Understand nested "if…then…else"
  - Variable types
  - Know how "set" and "change" work with a variable
  - Know what "print" does
  - Know how to clear text on brain
  - Know how and when to use a function

- **VEX Brain Motor and Sensors**
  - Difference between VEX Motor and Servo?
  - Why is a bumper switch and limit switch a digital sensor?
  - Know the purpose of distance sensor and its approximate range (in inches). Know that it can determine size and approach speed.
  - Know purpose of optical sensor (brightness, proximity, and hue)
  - Know the purpose of the potentiometer
  - Know the uses of the brain
  - Know the difference between a smart port and 3 wire port
  - Know the parts and how to connect them (battery, battery cable, brain, sensors, connectors)
  - Know how to use the motors and sensors in VEX Code

- **Flow Chart**
  - Know the parts of the flow chart
  - Know how to read a flow chart