

Click <u>here</u> to refer to documentation on Boolean logic.

Infinite loops contain a sequence of events that repeat endlessly due to either <u>non-</u> <u>terminating</u> condition, or having one that can never be met. (Lacks a functional exit.)

Examples: (1 == 1) or (1 != 2) or (3 > 1)

Using infinite loops where necessary, create the following programs:

- 1. Write a program that uses the potentiometer to control the speed of both motors. That is, the potentiometer should act like a speed knob for all motors. Your programming should have at least five degrees of variation.
- Write a program that uses the potentiometer to control the rotation of the servo motor. That is, the potentiometer should act like a position controller for the servo. Your programming must have at least six degrees of variation.
- **3.** Write a program that turns on the flashlight when the light sensor is covered and off when it is uncovered. Your program should loop so that the user can cover and uncover the light sensor multiple times without restarting the program.
- **4.** Write a program of your choice that controls a component of the test bed using the potentiometer as a switch.