**Title: FOLLOW THE LEADER**

**Problem Statement (1 line) -- *What is the problem/challenge you are addressing?***

*Following a target and constantly checking if something is following you*

**Goal (1-3 lines) -- *What are the aims of your project? What will you demonstrate***

I will program the robot to follow and identify its target via computer vision. Upon identifying the target, the robot will try and maintain a certain distance. The robot will also be able to lead an object and check to see if it is still following it.

**Approach (short paragraph) -- *what is your strategy for solving the problem or achieving the goal?***

*Initially, I want to program the robot to identify its target(s). Next, I want to move the robot based on the distance readings from the distance sensor. From there, through trial and error, I will determine a reasonable distance that it should maintain from its target while simultaneously checking if the target it’s following is the correct target.*

**Tentative timeline**

**(FORMAT: task, # of days)**

**Identifying targets: 1**

**Moving the robot based on distance of object: 1**

**Moving robot based on distance of IDENTIFIED object: 3**

**Determining correct distance for following/getting followed (picking up speed?): 3**