Line Following

1. Why do we need to use color thresholding and a binary image for finding the objects of interest?

2. Using the same image provided in the lab, explain the procedure to get the robot angle using the center of the blob of interest.

3. Why do we use a PD controller for the turn speed command of the robot instead of directly feeding the angle error?

4. Why do we feed back the integral of the turn speed when calculating our error from the center?