

## CS 3651 Skill Demo #3 Robot Navigation Part A

Student Name:

Student GTID:

Follow pages 73-142 in the BoeBot book

### Task 1: One Foot Counter Clockwise Triangle (50%)

Program your robot to drive in an Isosceles with one-foot long sides.

Tags each corner, \_\_\_\_, \_\_\_\_, \_\_\_\_

Arrives at start point \_\_\_\_

Orients to correct starting angle \_\_\_\_

TA/Instructor initials \_\_\_\_\_ date \_\_\_\_\_

### Task 2: BoeBot 500: 5 Laps Around 20" Square (50%)

Program your robot to drive around a square with 20" sides. Your score for this task will be computed as follows:  $(10 - X) * 5 - P$ , where X is how far the center of your robot is from the starting location, and P (penalty) is how many times both wheels of your robot cross the line defining the 20" box.

You can run the challenge a total of 5 times. We will take your best score.

X = \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_ (inches from starting location)

P = \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_ (number of times crossing white line)

Best score =  $(10 - X) * 5 - P =$

TA/Instructor initials \_\_\_\_\_ date \_\_\_\_\_