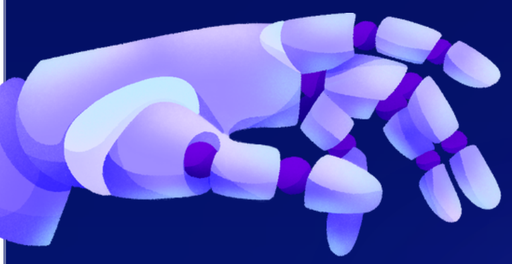
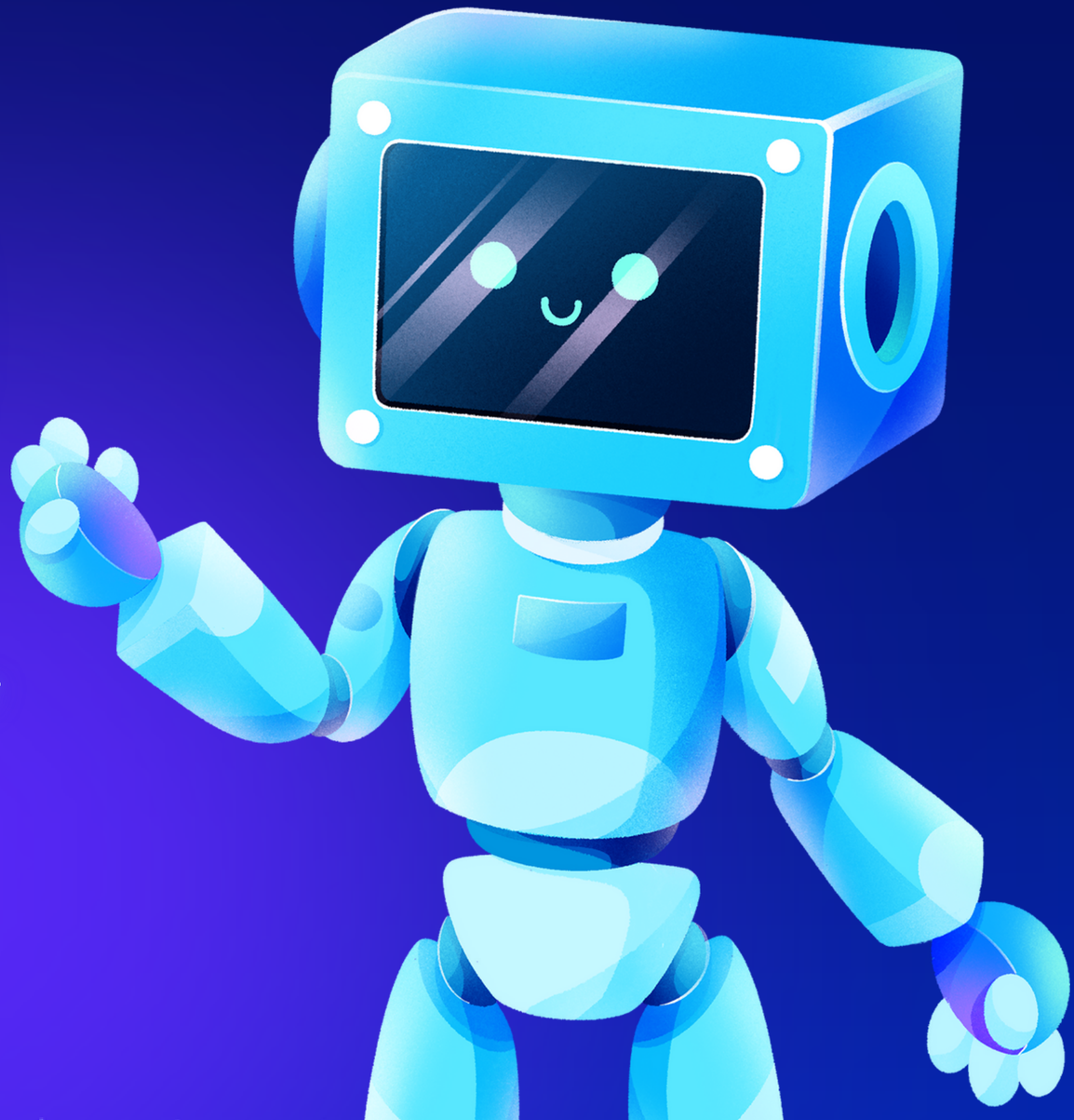
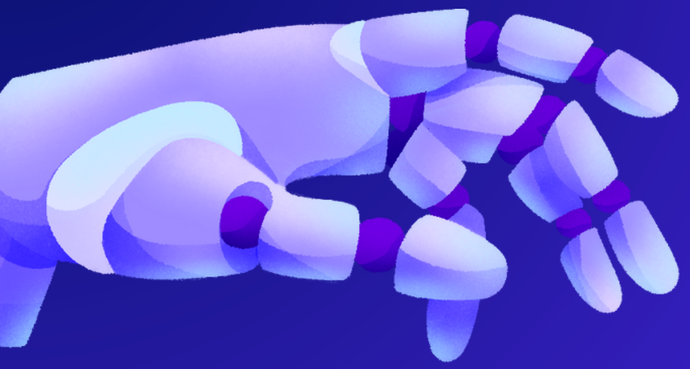
ROBOTICS PROJECT

By: Callan, Lucy & Alexander

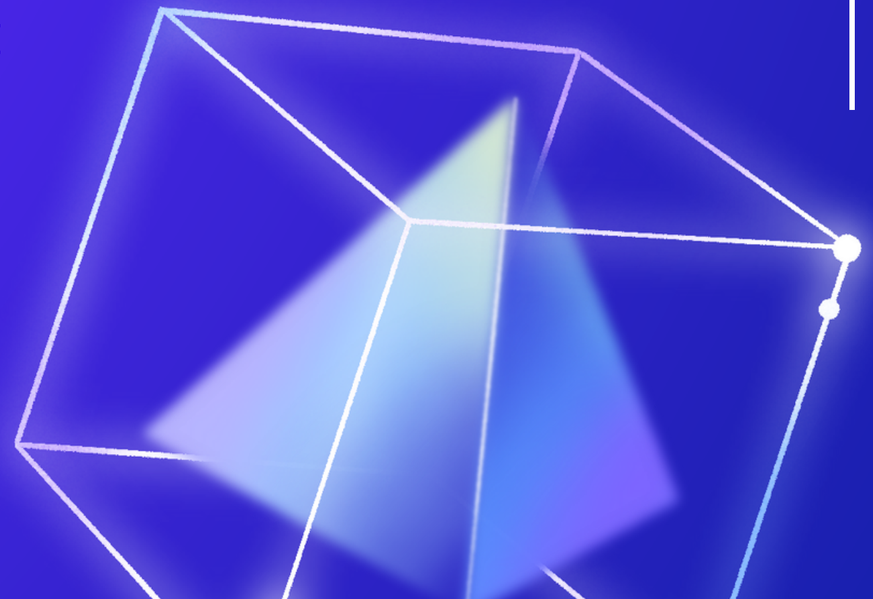




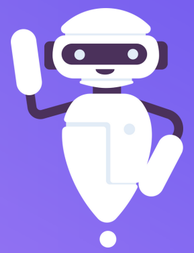


CHALLANGES

- Ensuring Robot did not hit any obstacles
- Making sure robot stayed within the course that the tape guidelines provided
- Figuring out the speed and time that the robot should travel to meet the requirements
- Creating algorithms that match project requirements and create a guideline for how the robot should preform



TEAM MEMBER ROLES



LUCY

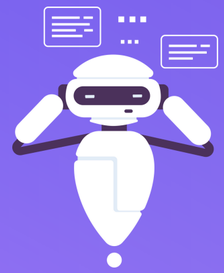
Problem Solver

- Ensures algorithm is written
- Films robot for each sprint
- Checks SDD
- Helped with block code

CALLAN

Recorder

- Recorded information from tests
- Puts information Into SDD
- Helped with block code



ALEXANDER

Coder

- Created algorithm
- helped create block code

WHAT WE HAVE LEARNED ABOUT SOFTWARE ENGINEERING

Problem Solving/Troubleshooting

- identifying problems by finding the cause of the issue
- creating solutions
- understanding what may cause errors or issues with the system

Algorithm Design

- creating algorithms for the robot to carry out a task

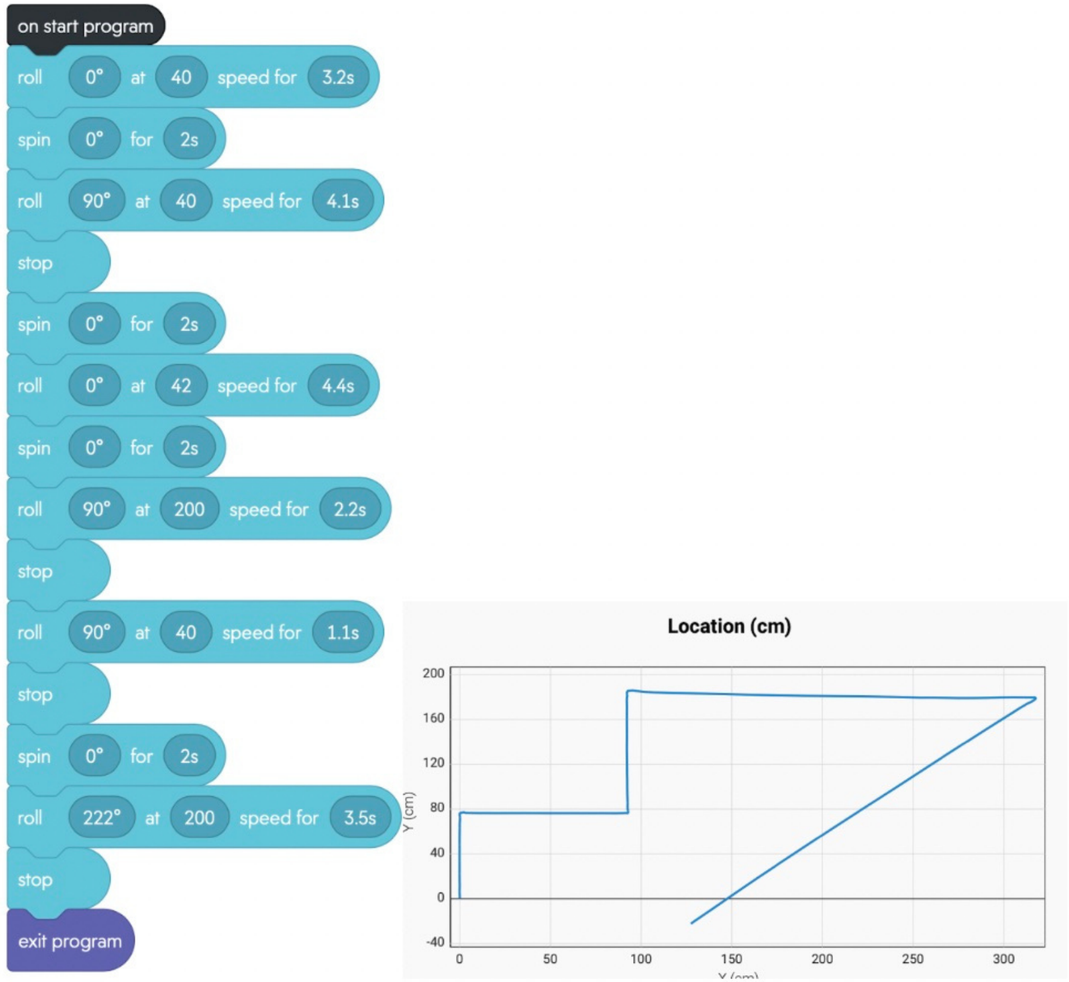
Programming Concepts

- learning concepts such as loops, fuctions, and conditionals

WHAT WOULD WE DO DIFFERENTLY

- We didn’t factor in enough time for coding the robot so next time we would dedicate more time to it.
- We would video each attempt at the code as sometimes it worked and we had not filmed it

BLOCK CODE


on start program
roll 0° at 40 speed for 3.2s
spin 0° for 2s
roll 90° at 40 speed for 4.1s
stop
spin 0° for 2s
roll 0° at 42 speed for 4.4s
spin 0° for 2s
roll 90° at 200 speed for 2.2s
stop
roll 90° at 40 speed for 1.1s
stop
spin 0° for 2s
roll 222° at 200 speed for 3.5s
stop
exit program

Location (cm)
200
160
120
80
40
0
-40
Y (cm)
0
50
100
150
200
250
300

VIDEO