
PCV Camp preliminary schedule

Day 1: (Monday)

12:00-12:30: lunch

12:30-1:00: icebreakers

1:00-2:45: build kitbots

- Use online instructions to build basic 2 wheeled robot.
- Groups of 2-3 depending

2:45-3:00: snack break

3:00-3:15: Introduce Programming Interface

- Discuss how system works (inputs, outputs, loops, etc)
- Show how to use sensor & motor (have motor rotate while sensor condition is met)

3:15-3:45: Program robot drive

- Show how to use differential steering to turn robot, go forward and backwards

Day 2: (Tuesday)

12:00-12:30: lunch

12:30-1:00: icebreakers

1:00-2:00: Finish programming drive

2:00-2:45: Discuss gear ratios and mechanism

- Show how to increase/decrease torque and speed with gears

2:45-3:00: snack break

3:00-3:45: mini challenges

- Building a claw to pick up or lift a bottle
- Using forks to lift up object
- Attaching sensor to claw to have grabbing automated
- Attaching sensor to forks to automate lifting

Day 3: (Wednesday)

12:00-12:30: lunch

12:30-1:00: icebreakers

1:00-2:00: finish mini challenges

2:00-2:45: introduce challenge (maze or sumo)

- Discuss elements of challenge
 - For maze, show tape maze. Objective is to navigate either autonomously or via hard code. Bonus objective to retrieve bottle at end of maze.
 - For sumo, show layout of fighting rectangle. Objective is to flip other bot or push out of the arena.

2:45-3:00: snack break

3:00-3:45: start building and programming bots

Day 4: (Thursday)

12:00-12:30: lunch

12:30-1:00: icebreakers

1:00-2:45: Continue building & programming bots

- check in with groups before end

2:45-3:00: snack break

3:00-3:45: continue programming bots

Day 5: (Friday)

12:00-12:30: lunch

12:30-1:00: icebreakers

1:00-2:45: Finish programming bots

- Optional testing on track

2:45-3:00: snack break

3:00-3:45: compete/test bots