L19: CSC 126, Introduction to Robotics

This is a team assignment designed as an in-class activity.

Directions for use
- Please change make a copy and change the document name so that it reflects your usernames. For example, *L19-Finalizing-Outreach_pearcej_wilbornew*
- One person should make a single copy of this worksheet in their Google account.
- Then that person should share it with everyone in the group so they can all edit it. Note that having access will be essential for studying for exams.
- You will be submitting both a downloaded pdf of this document and a program when you are done.

Library Outreach Requirement

Library Outreach requires a team of 3-4 students, 2 who commit to go to the library on the first outreach event and 2 who commit to go to the library on the second.

Member Roles
- Please list all team members below:

Team Roles	Member Name	Date of Library Outreach
Facilitator: Keeps track of time and makes sure everyone contributes appropriately.		
Reflector: Considers how the answers could be deeper, and how the team could work and learn more effectively.		
Recorder: Makes a copy of this Doc and shares with the instructor pearcej@gmail.com and all teammates. Ensures all answers are recorded.		
Spokesperson/Driver: Talks to the instructors, TA(s), other teams, and runs the robot.		

L19: CSC 126, Introduction to Robotics

This is a team assignment designed as an in-class activity.

Lab Activity:

Objectives

- Work in your teams to finalize your library plans

Tools and Parts Needed

- NXT brick with charged battery pack and desired sensors
- RCX for the Zombie Clone attack and/or other labs as desired
- A NXT or RCX brick for a cool build

As you know, our two outreach events will take place on Saturday, December 7 and Sunday, December 8 in the early afternoons. You must arrive by 12:55 or you will be counted late.

Remember that the children are typically younger than teenagers, so the best focus is interactive. This lab is designed to get you to plan and to work to finalize some demos you will use for these children.

We will be taking both the RCX and the NXT robotic platforms, so you should have multiple programs for each platform. You are welcome to do new builds, but please do not take the base apart--I have plenty of spare Lego parts--please use those instead.

1. **Planning**: With your entire group of two teams, to discuss planning for the outreach, discussing the full set of robots and programs you would like to take to the library.
2. **Membership**: Report which of your team members will attend the outreach our two outreach events will take place on You will be expected to arrive at the library by 2:30 pm. (You should have two members at each.)
3. **Organizing**: Rename all of your programs meaningfully so you can quickly find each in case of needing to make adjustments on the fly.
4. **Programming**: You should have a total of four or more programs and should have at least programs for each robotic platform. Remember that we will use the Zombie Clone Attack on the RCXs, so that will be one of your RCX programs. **Be sure to preload and test all your programs**.
5. **Sharing**: Be sure to load and test all these programs, sharing this code with all team members.
6. **Explaining**: Because this demo is for younger children, part of what you will be doing is explaining how the interaction works. Have the demo partners try explaining the code to the non-demo partners.

L19: CSC 126, Introduction to Robotics

This is a team assignment designed as an in-class activity.

Discuss the answers to each of the following questions using correct spelling and good grammar.

---

1. **Team Name**: What is your team name?

---

2. **(5 min) Membership**: List by name which of your team members will attend the outreach on of our two outreach events will take place on Saturday and Sunday and whether or not anything has changed.

---

3. **(5 min) Publicity**: Each team member is expected to post two posters. Follow the link, scan where others are putting posters, then next to each team member's name list where you personally plan to post your two posters. Try to get them spread out and into places where staff or students with children are likely to go.

   Robotic Poster Placement

---

4. **(5 min) Builds**: Discuss the robot building you have engaged in. Include photos of all robots you have built. Include links to any designs you followed or modified and describe how anything has changed.

---

5. **(5 min) Programming**: Describe each of the programs you will be running on the robots. Discuss your expectations of how the children will engage with them. Submit all of these programs into Moodle. (There should be several and the code in each should indicate which robot it runs on: an RCX? And which NXT if you have more than one.) Also, describe how anything has changed.

---

6. **(5 min) Explaining**: Because this demo is for younger children, part of what you will be doing is explaining how the interaction works.

   Find another team to work with and take turns pretending to be children so

L19: CSC 126, Introduction to Robotics

This is a team assignment designed as an in-class activity.

each team can practice what to say.

Describe what you learned.

---

7. **(5 min) Your Expectations**: Given the explanations you made with your teammates, what challenges do you anticipate in explaining the interactions to children? Explain.

---

8. **(15 min) Labelling and moving to Dr. Jan's car**: Every robot needs to be placed into a box abelled by your team name to go to the Library for outreach. These need to be loaded into Dr. Jan's car.

   Everything that you are leaving behind also needs to be labelled with your teamname.

   During our final exam period, we will debrief and re-organize the NXT boxes for the next offering of this course.

   Please indicate below when this is done and that you understand you must attend the final exam period on **Wednesday at 11:45 am to put things back in order.**

To submit

- **Submit the pdf of your completed lab activity in Moodle.**
- **Also submit ALL of your programs, named them so you know what they are teamname-zombie.vi, etc. Be sure they are also loaded on your robots and that you have shared them all with all team members.**