For your final project, you will create a lesson plan that could be used in future sessions of the after-school program. This lesson can cover any material, and be about any topic you wish, but it must include all of the following:

- **Provide a brief description of the content of the lesson.** Start your lesson with a high level explanation of what the lesson will cover.
- **Describe the goals of your lesson** After completing the lesson, what should students have learned?
- **Detail the materials needed** Are there any constraints to how the robot should be constructed and what sensors it should be equipped with?
- **Describe the target audience for this lesson** How much experience should students completing this lesson have? Should students have a specific background outside of robotics (e.g., in order to understand the lesson, students might need some base level of understanding in math, physics, music…).
- **Link the lesson's tasks to some broader math, science, technology, or societal problem** How does solving this problem potentially relate to something more than just moving a LEGO robot around? What concepts or skills in math, science, and computing are developed or used?
- **Give a step-by-step description of the lesson** The students will only have a normal after school period (90 minutes) to work on the project. Students should finish in one period. If you would like students to work on a challenge that would take more time, then you can split up the challenge into discrete units. How should the mentor guide the students? Where in the lesson should the students work independently? What needs to happen at the end for closure?
- **Provide sample code** Screen shots of NXT or RobotC code should be included in your lesson.
- **Include a worksheet** The worksheet should help guide students and help assess their understanding of the lesson.