Software Name: LineRider-Lite

Description: The program is going to be a quiz oriented game. Our software program features 5 types of physics multiple choice questions (we don’t yet the specific types of questions yet because we are waiting on our teacher to tell us what she wants the topic of each question to be). The user will have three chances to answer the question correctly. Hints will be given after incorrect questions, and will become more specific as more of the chances are used up. For each incorrect answer, the correct answer will highlighted and the point value decreased. The point values go as follows:

- 15 points – correct on first attempt
- 10 points – correct on second attempt
- 5 points – correct on third attempt
- 0 points – was not able to answer correctly

There will also be additional points for the correct unit which will be selected from a drop-down menu. After each question, the user will be presented with a line-ridge style game. As the program progresses, the number of barriers will increase in the games, making it more difficult to maneuver (by means of using the cursor to draw straight lines for the line-ridge to ride) the line-ridge to the goal.

Instructions:

1. Select a difficulty level, then click begin to start the game.
2. Answer each question to the best of your ability. When you are ready to submit your answer, click “submit”
   a. If the answer to the question is incorrect, display a hint and give the user a second, and if necessary, and third chance.
3. After the problem, the LineRider-Lite game will appear where the user must get the character in the goal.

4. After all of the problems have been answered, click “E-Mail Score to Teacher” if the teacher requests this. Then, click quit to exit the game.

Menu

- Inputs: Mouse click to choose a difficulty level, and then another mouse click to begin the game
- Functionality: Provide a move challenging set of questions and/or game to the honors students. The purpose of the mouse click to begin is to allow for the students to switch difficulty levels before beginning the game.
- Assumptions: None
- Exceptions: None foreseen

Quiz

- Inputs: Mouse click to select multiple choice answer and numbers or words typed by the student.
- Functionality: Assess the student’s knowledge of the topic
- Assumptions: None
- Exceptions: Format of answers

Team Management Plan:

All group members will split up the questions for the program. Once our teacher knows what types of questions she wants included in the software, we will designate the questions based
on how comfortable the member is with the question (if you know nothing about friction, you should not be writing a question about friction).

Each person will test someone else’s code – no one will test their own code. Again, we need to wait on our teacher before this can be assigned.

The first thing we will work on (because it will probably take the most time, and we can’t do anything else without more information from our teacher) is program the line-rider games. This we should be able to work on together, with each person working on a different level.

Potential deadline: 11/17

A major goal for the project is to get a working mesh such that the students can work on the questions in pairs, but take turns entering the answers. Because of the complications we’ve had with the mesh thus far, this will be the last thing that we work on. Deadline: 12/8

**First Implementation:** Our goal for the first implementation is to get one or two working questions and at least one game. The questions should be fully functional as described above.