(30 pts) Approx. 3 days

The final part of our unit has you adapt your LEGO robot and its program to accomplish one of the three LEGO Super Challenges. As you and your partner work through the proesss of solving the problem you'll need to actually barinstorm some possible solutions, make a plan for what you want to do, draw out a picture, and then make it happen! The Engineering Design Process returns!

1. Read through the following LEGO Super Challenges with your partner and choose one (1) to work on!
    a. **Wooden Maze:** Build and program a robot that can complete the large wooden maze. Your robot will need to be able to start at the end that is labeled "start" and finish at the point labeled "finish".

    b. **Line Follower:** Build and program a robot that can follow the wiggly taped line on the floor of our classroom. The robot needs to be able to make a complete loop without any physical help from you!

    c. **Whiffle Ball Pickup:** Build and program a robot that can drive from one end of a white lab table to the other, pick up a whiffle ball from it's stand, and then bring it back to the starting point and put it back down on a new stand.
2. Once you and your partner have chosen a single Super Challenge, brainstorm at least 10 ways to accomplish the task. Record your brainstorming in your notebook.
3. Start building and programming your robot! Work together to make sure things go well.
4. Test, Evaluate, Redesign, Rebuild, and Retest as much as it takes to get it working!
5. Evaluate your final solution. When you think your robot is as good as it's going to get, run the program 5 times in a row. Let Mr. Benshoof watch! Record how many times you are successful out of the 5 total trials.
6. Write a 1-page summary in your engineering notebook about your LEGO Robotics experience. What was easy and fun? What was frustrating or annoying? What would you do differently if you were building a new robot?

Part 3: Tasks	5 points	4-3 points	2-1-0 points
⊕ Select a LEGO Super Challenge	+ Talk with your team about the LEGO Super Challenge options. + Agree on which challenge your team wants to tackle.	N/A	*0 points only if:* - No agreement between partners
🔲 Plan and Brainstorm Solutions	+ You and your partner brainstorm possible solutions and possible robot designs. + Draw a picture of what you want your robot to look like.	- Your plan is not recorded - Your brainstorming is not recorded	- Nothing is recorded - No plan for accomplishing the super challenge is present
	10 points	*9-4 points*	*3-0 points*
⊕ Build & Program Your Robot	+ Build your robot. + Program your robot to complete the Super Challenge + Make sure your robot can complete the challenge at least 4 out of 5 tries. + Have Mr. Benshoof confirm your success.	- Your robot is successful between 1 and 3 times out of 5.	- Your robot is never successful at the super challenge.
📄 Write a 1-page Summary	+ Write a full page in your engineering notebook reflecting on the LEGO Robotics building	- Your summary is less than a full page - Your summary is not about the LEGO Robots	- Your summary is missing