**iCREAT I: Module 9 - Final Project - SolidWorks Model**horizontal line

# Objectives

* Use SolidWorks to model your own part for the micromouse final project
* Use existing and modeled parts to create an assembly in SolidWorks
* Simulate assembly in SolidWorks to ensure that the designed part will fit existing components

# Background / Scenario

You have presented your project at a Peer Review session and gathered feedback on your

design. It is time to model your part in SolidWorks. Your SolidWorks model will be used to

3D print a final physical prototype.

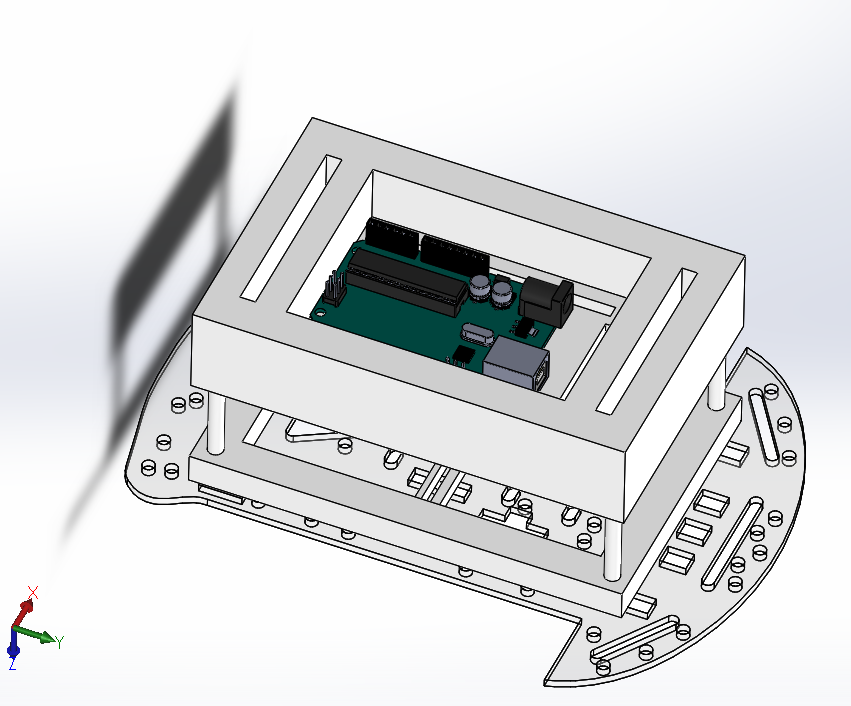
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# Required Resources:

* Access to the Internet
* SolidWorks software
* Dimensioned drawing of your final project part (created in the previous assignment)
* Chassis SolidWorks Part file

# Part 1: Final Project Part

### Step 1: Create a new part

1. Create a folder for the Final Project on your computer
2. Name the folder **Final Project**
3. Create a new part file in SolidWorks
4. Save the file to the Final Project folder on your computer
5. Include your **initials** and the words **final project** in the file name
6. Use SolidWorks sketches and features to model the part you drew in the previous assignment. Be sure that the part is properly constrained using dimensions and relations.  
   **TIP: Save the part often as you work on the design.**
7. Don’t forget to save once the part is complete

# Part 2: Final Project Assembly

### Step 1: Open existing parts

1. Download the Chassis Part file.
2. Save the file in the Final Project folder on your computer
3. Open the Chassis Part file
4. Open the part file you created in Part 1 of this assignment

### Step 2: Create a new assembly

1. Create a new assembly file in SolidWorks
2. Save the file to the Final Project folder on your computer
3. Include your **initials** and the words **final project** in the file name
4. Add the Chassis Part file to the assembly and make sure that it is placed on the origin
5. Add your modeled part to the assembly
6. If you need any additional parts to attach your model to the chassis be sure to include them in your assembly
7. Move and rotate the parts as necessary
8. Use mates to assemble the parts  
   **TIP: Save the part often as you work on the design.**
9. Don’t forget to save once the part is complete

# Part 3: submit your work

### Step 1: Create Screenshots

1. Create screenshots of the part and assembly your created in this assignment
   1. You can use Windows Snipping tool  to create and save a screenshot
2. Save the screenshots in your Final Project folder. Screenshots will be included in your final project documents

### Step 2: Submit your work

1. Submit screenshots and all SolidWorks files to the appropriate assignment on or before the due date. Be sure to include:
   1. Your modeled part file
   2. Chassis part file
   3. Any other part files used in the assembly
   4. Your assembly file
   5. Part screenshot
   6. Assembly screenshot