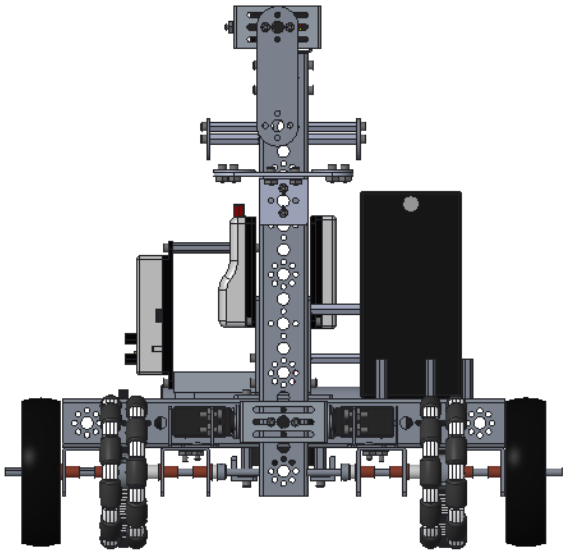
Modify a part model

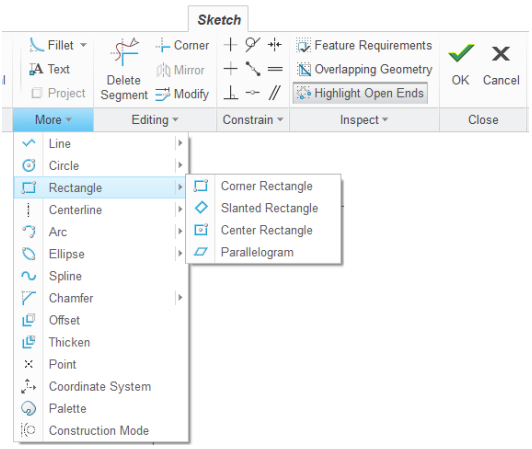
The robot model is complete but can be improved. When viewed from the front, you can see that the wheel and gear axles extend beyond the outer edge of the wheels. That extra axle length could potential get caught on obstacles as the robot drives.



We'll remove the portion of the axles that extend beyond the wheel using PTC Creo's Extrude tool.

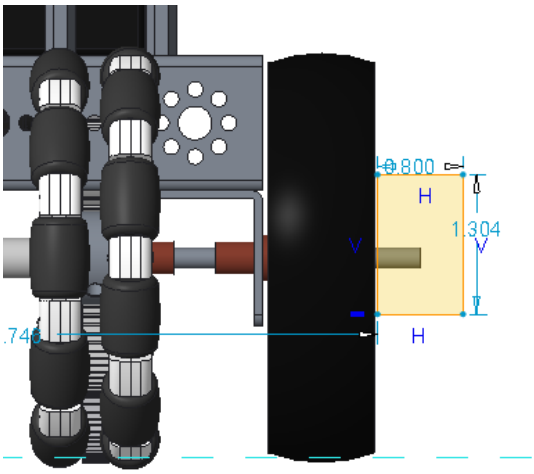
1. In the model tree, click **ASM_FRONT** for ROBOT_SYSTEM.ASM.

2. From the Model toolbar, select **Sketch** .
3. From the Sketch toolbar, select the **Corner Rectangle** .



You may need to expand the More tool menu for it to be available.

4. Draw a rectangle that completely covers the portion of the axles that you wish to remove. The rectangle can extend beyond the axle.



5. Draw a second rectangle over the axles on the opposite side of the robot. Click **OK** .
6. From the Model toolbar, select **Extrude** . Change the extrude type to **Symmetric** .
7. Set the depth value to be long enough to cover all three axles on each side of the robot. Click to select **Remove Material** . Click to finish removing the material.

The axles of the robot model are now shorted to not extend as far beyond the wheels and will not be as likely to get caught on obstacles.

The procedure we completed in Creo is similar to sawing down the axles in a workshop during the build of the physical robot.