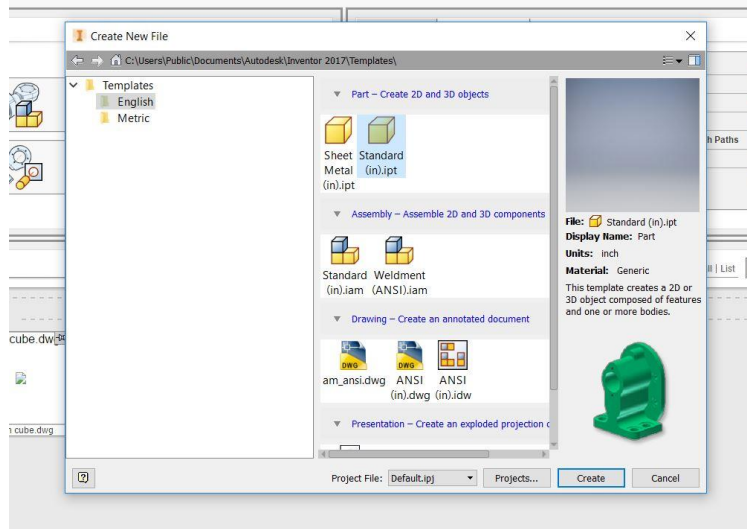
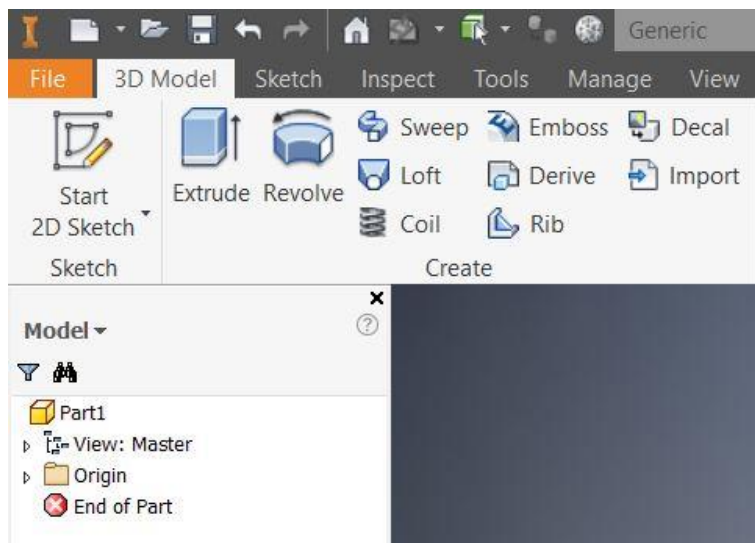


## Robot Building in Inventor 101

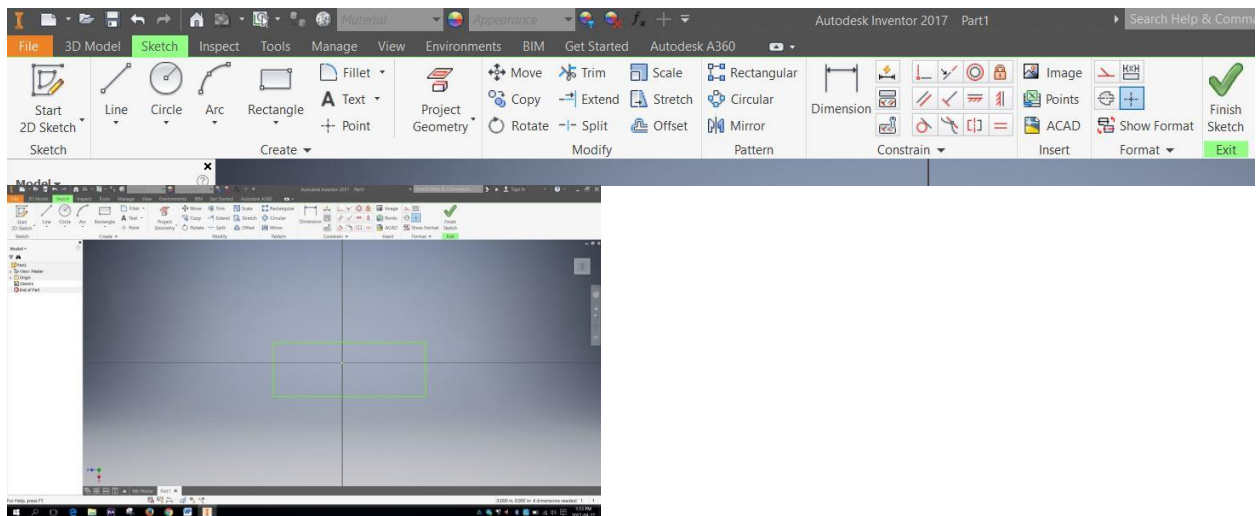
Step 1: After opening Autodesk Inventor, click on the File tab under the Inventor logo on the top left of the window and select New.



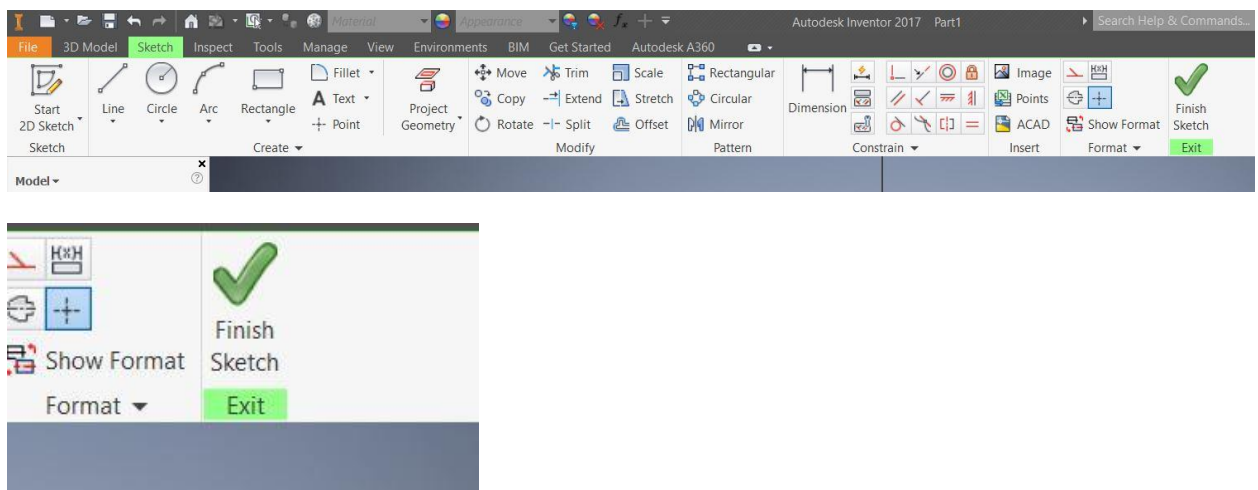
Step 2: Select English and Standard (in).ipt. Note: All units will be in Imperial after selecting this template. Click Create to start.



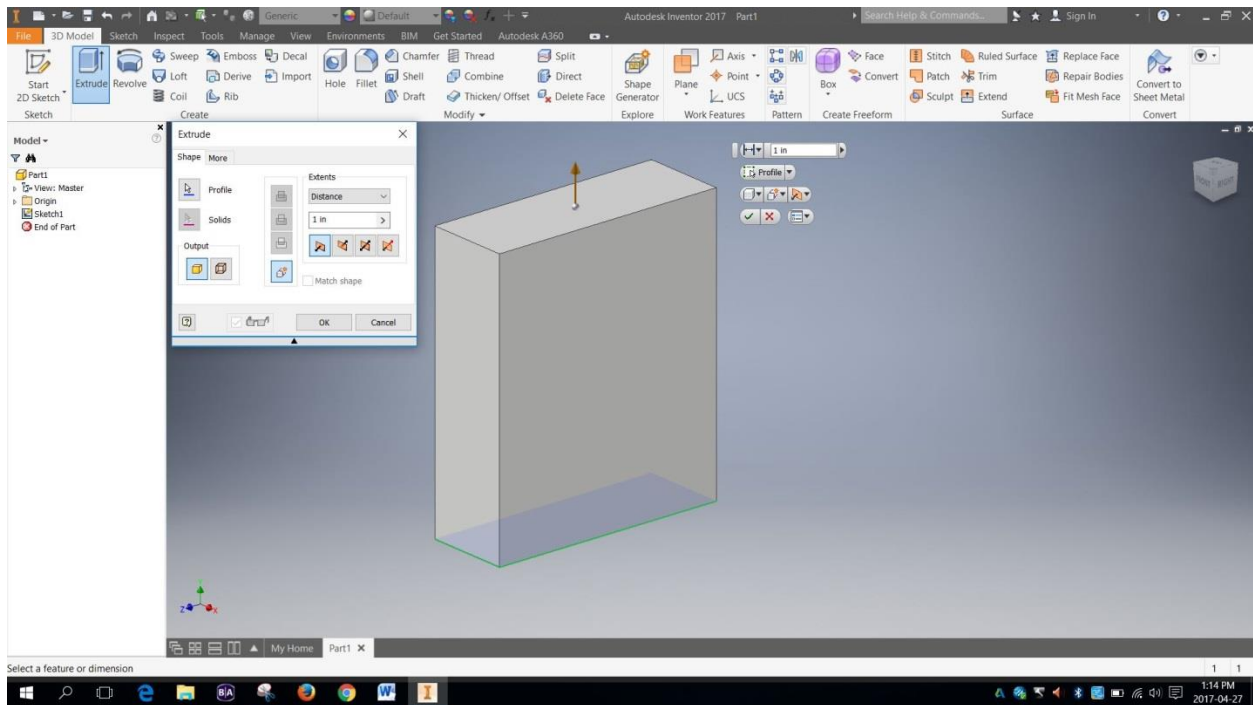
Step 3: Click Start 2D Sketch on the top left corner of the navigation tab and then three yellow planes should show up in the window below. Click on the plane you want to start on to create your sketch.



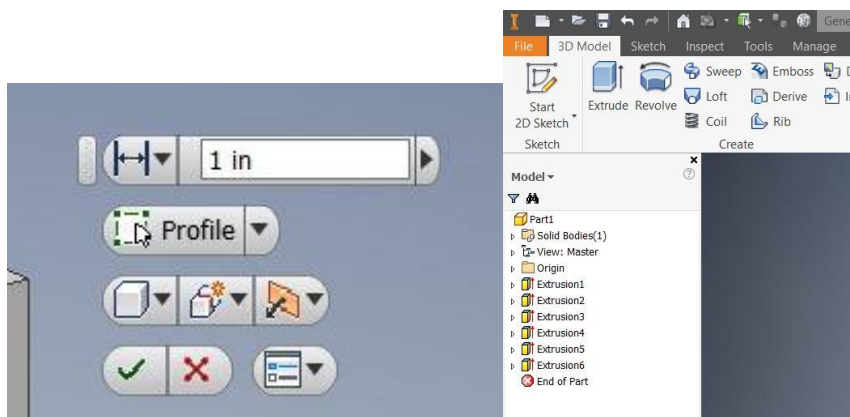
Step 4: After you selected your plane, the sketch tab shown above should be activated. Select the tool (rectangle, circle, line or arc tool) and begin sketching your shape. You can edit the dimension of each of your lines by selecting Dimensions and then selecting your line. Enter your preferred dimension into the number box. Please note that your sketch must be a closed shape. Double check if all your lines meet.



Step 5: When you are finished making your sketch, select the green checkmark (Finish Sketch) on the right of the navigation menu.

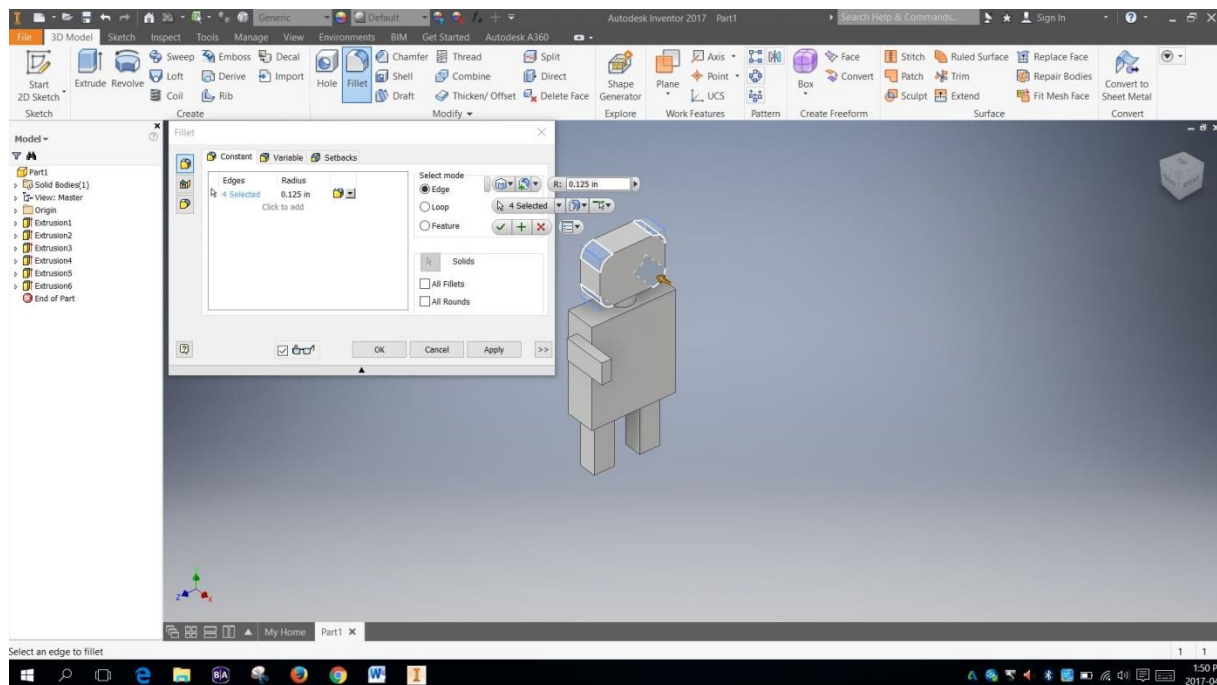


Step 6: To make your shape drawn into a prism; select the Extrude tool on the navigation menu.

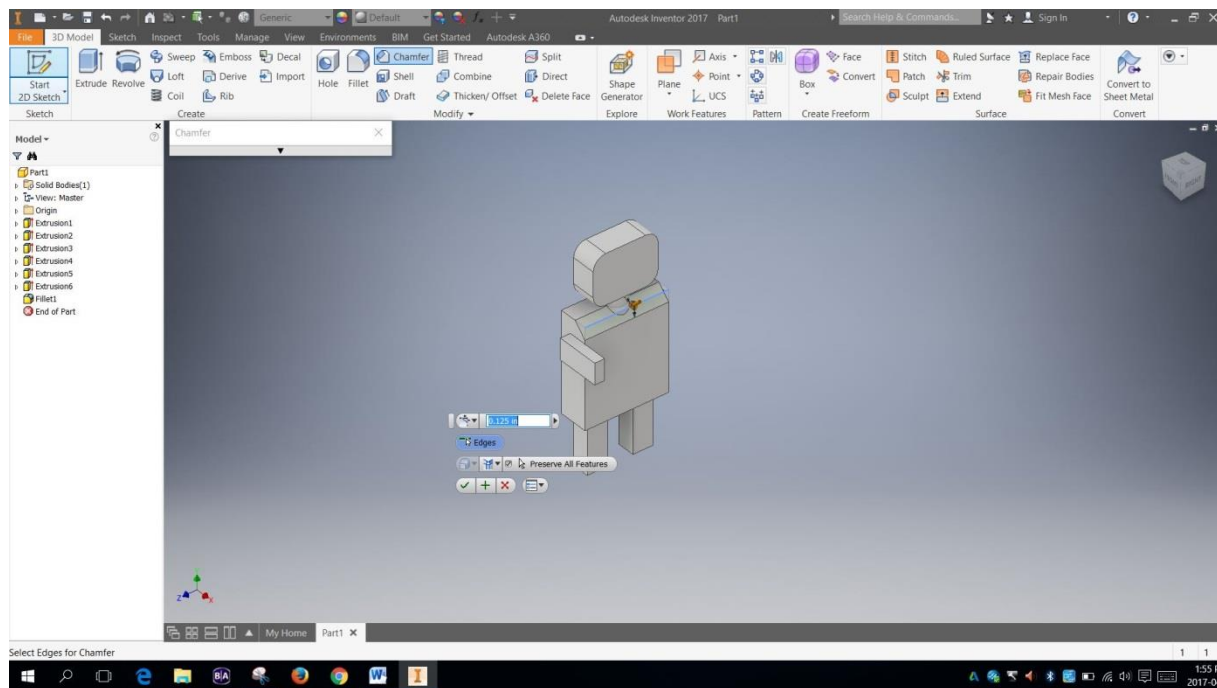


Step 7: Enter the height you want your object to be in the number box and select the green checkmark when you are finished editing. You can always edit the Extrusions you have made by double clicking the Extrusion displayed on the menu on the left of the working window.

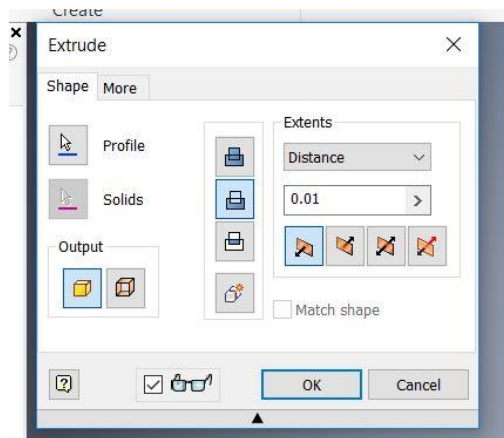
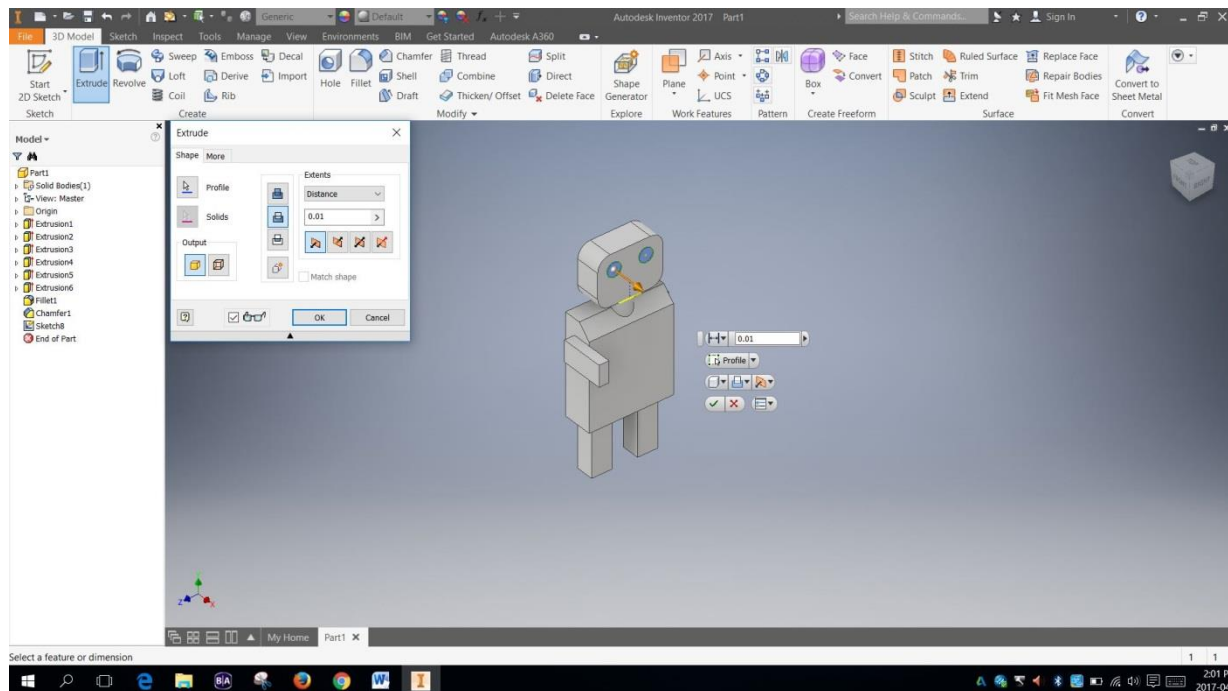
Step 8: Use steps 1-7 to form the neck, head, arms, legs and other features on your robot. To attach a part on an existing part, simply select the face of the object you want to attach to after selecting Start 2D Sketch. Draw your sketch on the face you selected and click Finish Sketch when you're done.



Step 9: After you have extruded the shape of the features, if you wish, you can use the Fillet function to produce curves instead of the sharp corners. After selecting the Fillet tool in the navigation tab, select the edges you wish to fillet and enter the magnitude of fillet of your choice in the number box. Click the green checkmark when you're finished.



Step 10: If prefer to chamfer your edges, select the Chamfer tool in the navigation menu and select the edges you want to chamfer. Click the green check mark when you are done.



Step 11: To cut a shape you have drawn into the face as opposed to extruding the shape out of the face, select Extrude and then the Cut function in the Extrude menu. Adjust the depth of the cut by modifying the distance in the number box in the menu. Select the OK tab or the green checkmark when you are finished.