

Drafting Tutorial

Part Two Layouts

Objectives

Understand:

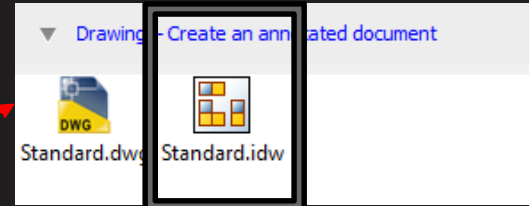
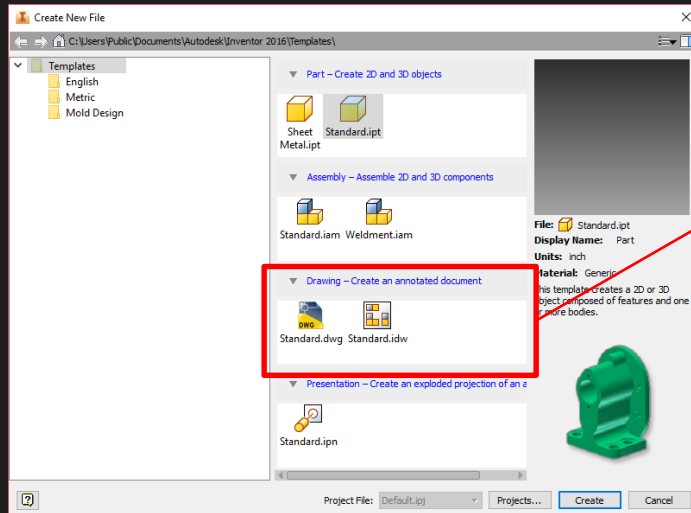
- ❑ How to create a clean and organized layout for production

Demonstrate:

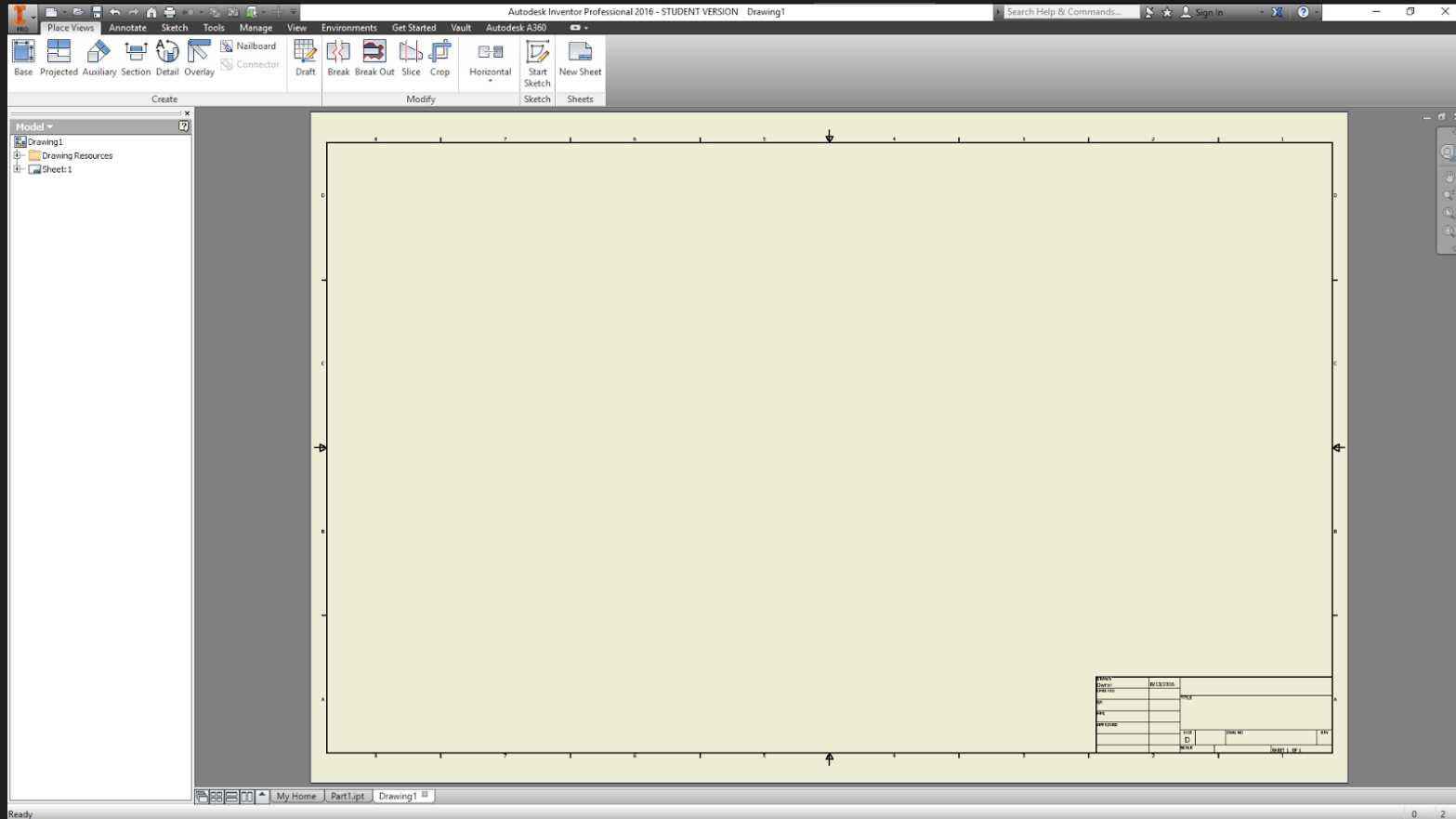
- ❑ The ability to create a layout for production

Getting started

- ❑ To begin, open the program like last time, and go to the create new file window
- ❑ Instead of creating an .ipt, create an .idw

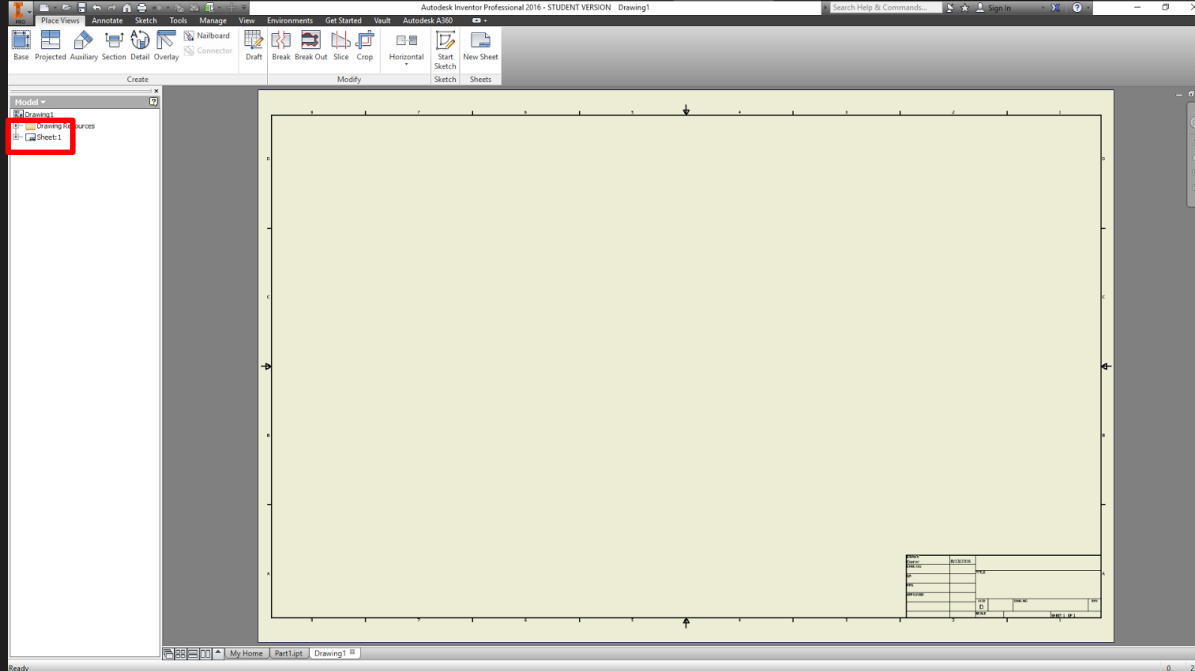


□ After opening the .idw, you will see this screen

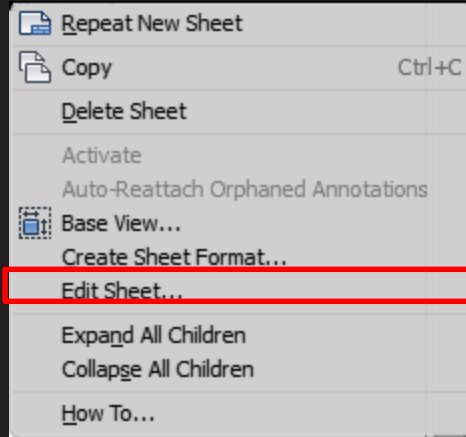


Changing the size of the paper

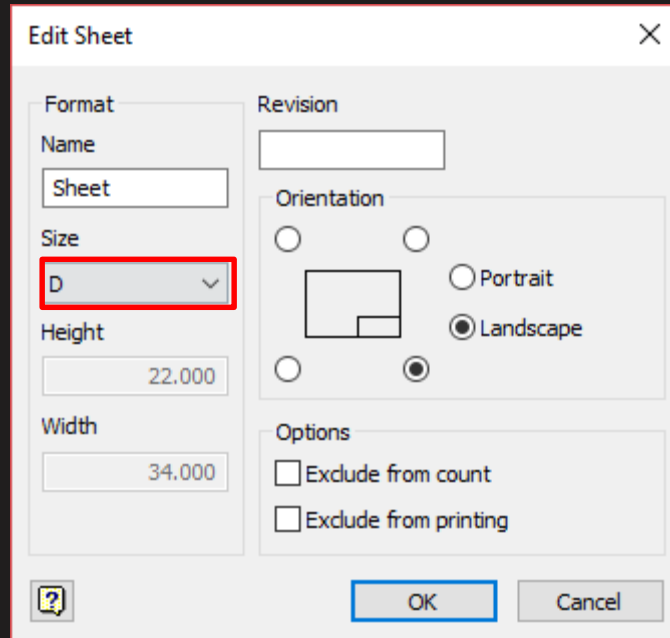
- ❑ In order to make the paper easier to read, we need to change the size
- ❑ Right now the paper is a size D, we need it to be B
- ❑ To do this, right click on the sheet, currently named "Sheet 1"



- ❑ This is the prompt that will appear
- ❑ Click edit sheet



□ From here click the box under “Size”



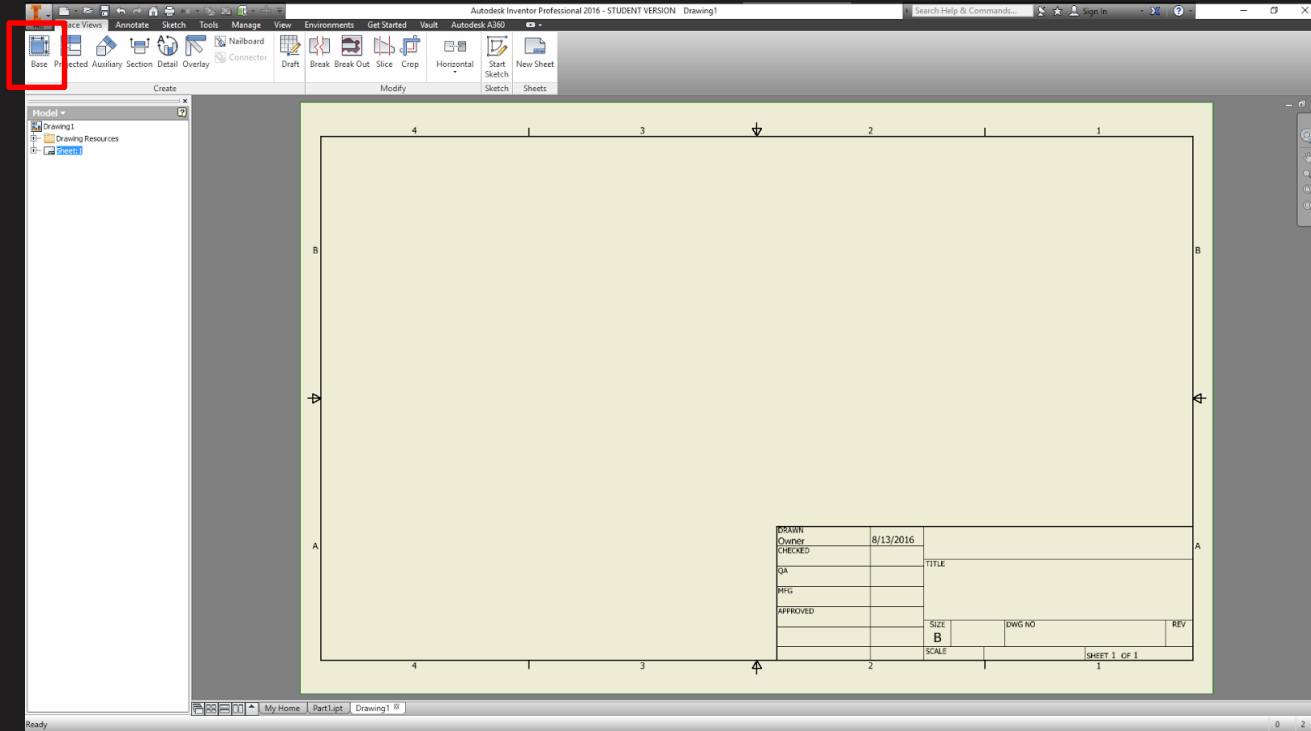
The image shows a dialog box titled "Edit Sheet" with a close button (X) in the top right corner. The dialog is divided into two main sections: "Format" on the left and "Revision" on the right. The "Format" section contains a "Name" field with the text "Sheet", a "Size" dropdown menu with "D" selected and highlighted by a red box, a "Height" field with the value "22.000", and a "Width" field with the value "34.000". The "Revision" section contains an empty text field, an "Orientation" section with radio buttons for "Portrait" and "Landscape" (where "Landscape" is selected), and an "Options" section with two unchecked checkboxes: "Exclude from count" and "Exclude from printing". At the bottom of the dialog, there is a help icon (question mark in a square), an "OK" button, and a "Cancel" button.

☐ Select “B”

- A
- B**
- C
- D
- E
- F
- Custom Size (inches)
- A4
- A3
- A2
- A1
- A0
- Custom Size (mm)
- 9 x 12 (inches), Portrait
- 12 x 18 (inches)
- 18 x 24 (inches)
- 24 x 36 (inches)
- 36 x 48 (inches)
- 30 x 42 (inches)
- A size, Portrait, 1 view
- A size, Landscape, 1 view
- B size, 2 view
- C size, 4 view
- D size, 6 view
- E size, 7 view

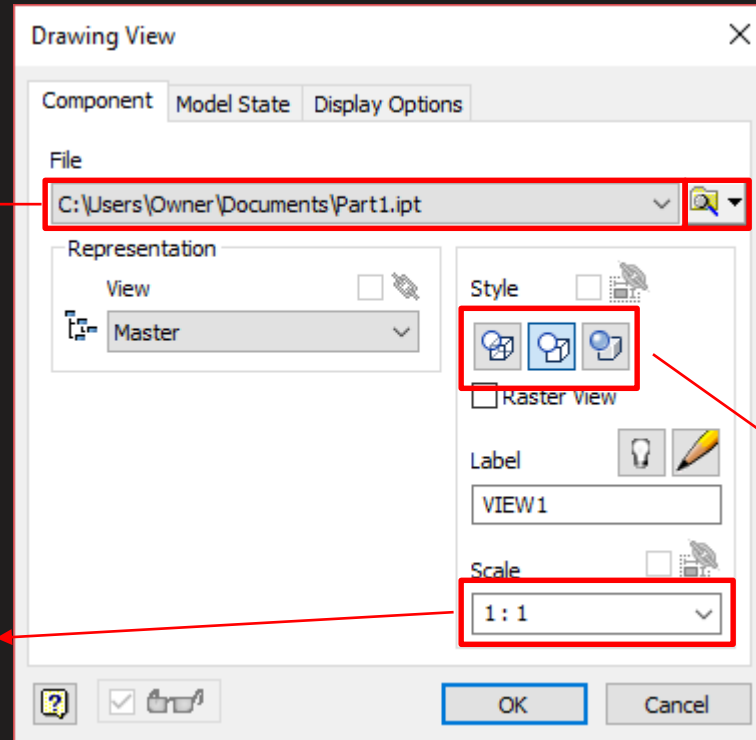
Placing your part

- ❑ Now you can place your part
- ❑ Start by clicking “base”



The Base selection prompt

This will allow you to select a new file, clicking on it will open the normal “open file” window



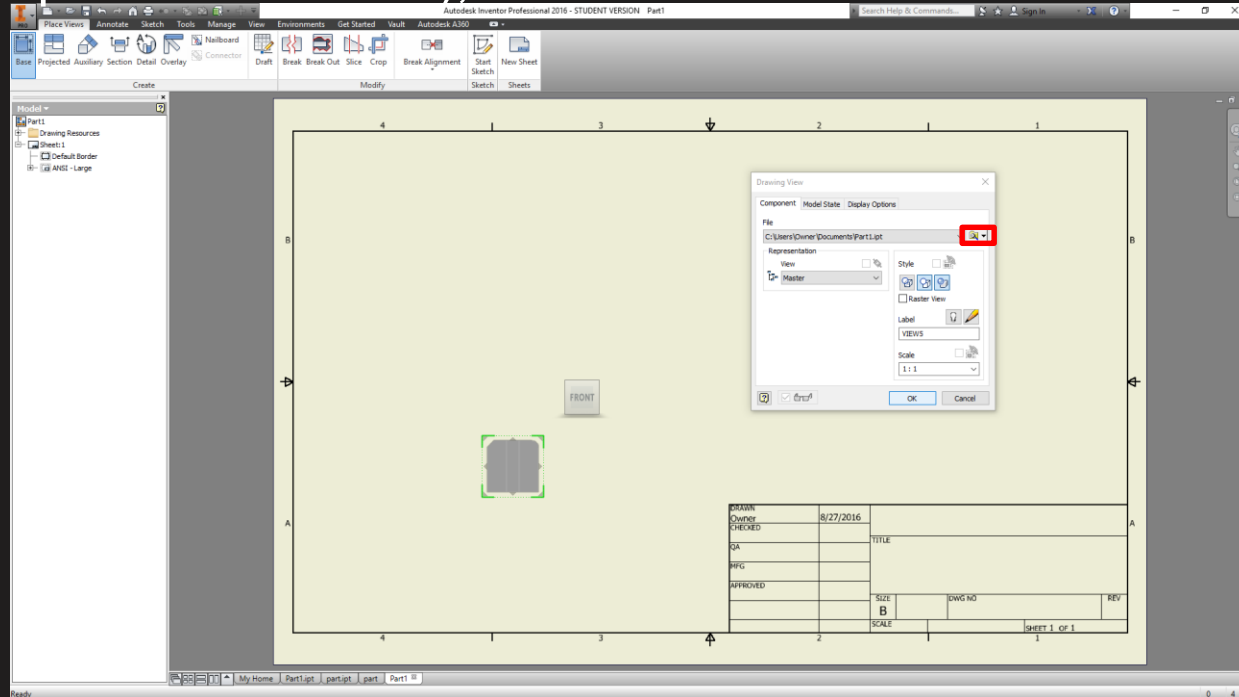
This shows your filename and its directory

This changes the visual style of the part on the idw, generally the default is fine, but sometimes color does help, so know when to use it. (play around with it a bit)

This will allow you to change the size of your part on the idw

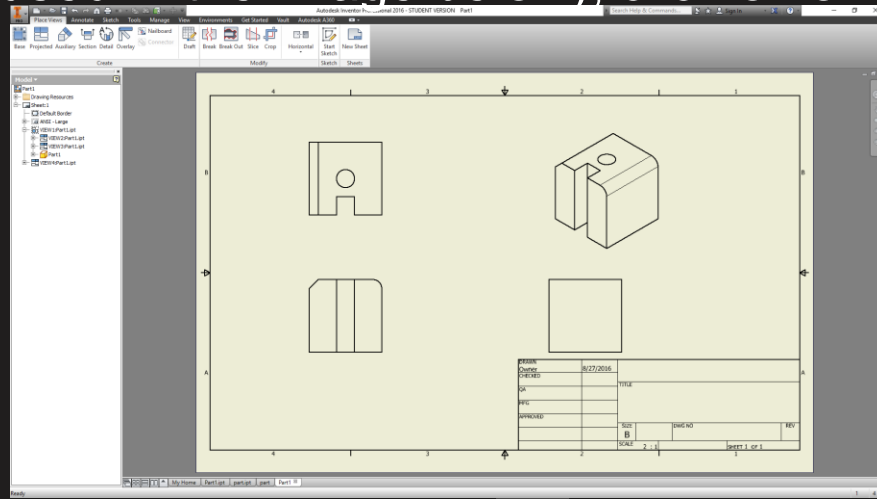
Placing the first view

- Select your part from the last tutorial(hit the button marked in red to open the “Open File” window), but don’t hit ok



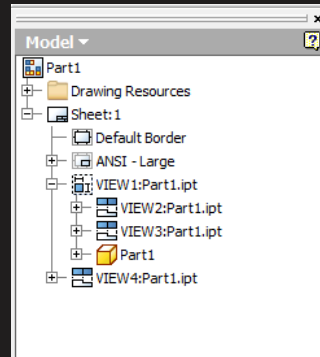
Placing the other views

- ❑ Place your views in a pattern shown below, one above, one to the right, and one in the top right corner
- ❑ This is considered to be the standard and will work fine in most cases, but there will be exceptions
- ❑ Once you have placed your views, change the scale so the cube is a good size(2:1 is used in the image below), click ok or hit enter



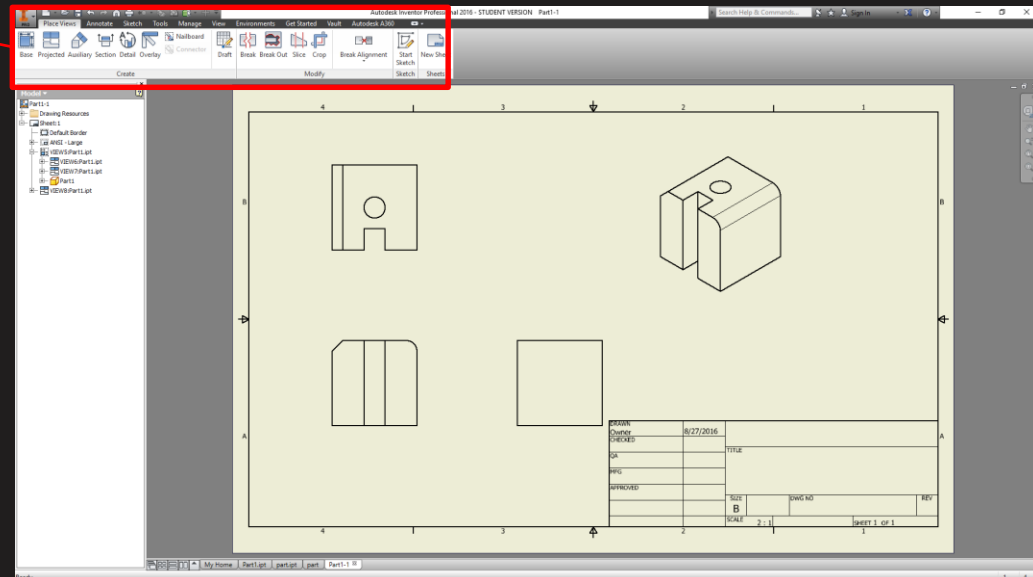
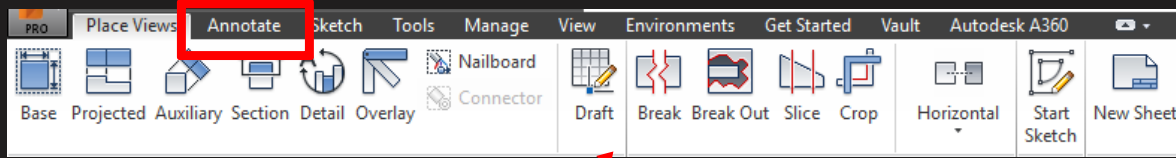
A note on editing views

- ❑ If for some reason you find that your part is poorly sized for the page, or you want to move the parts, simply double click on the view on the left toolbar
- ❑ View1 refers to the first view that was initially there, and the two in parallel to it
- ❑ View4 refers to the Isometric (the angled one in the top right corner)



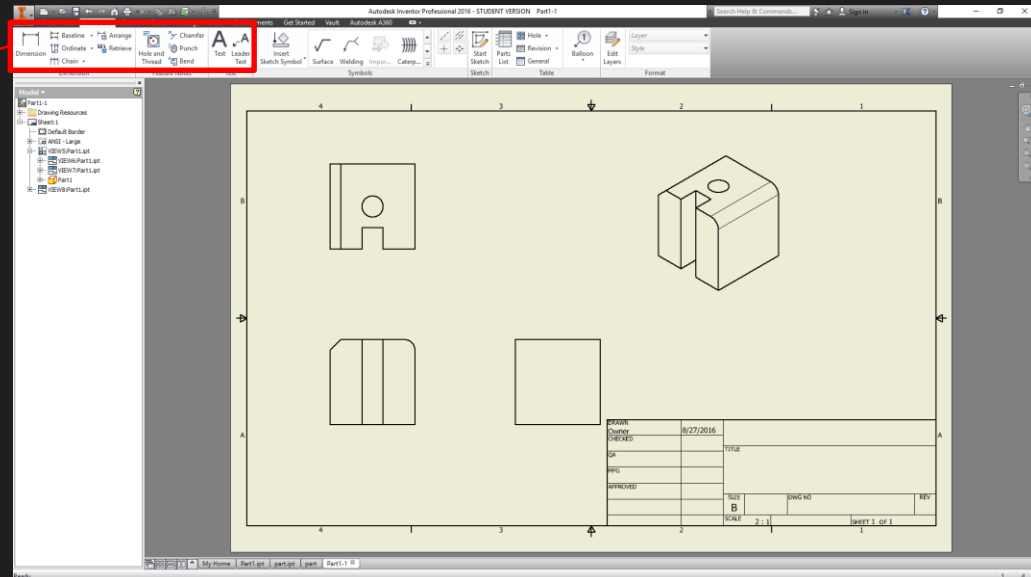
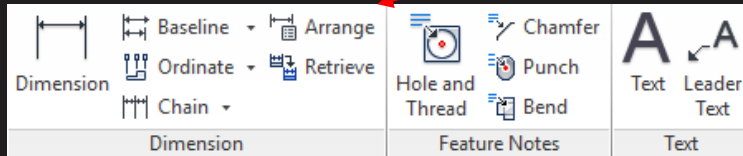
Dimensioning your part

❑ To begin dimensioning your part, change tabs to the annotate tab



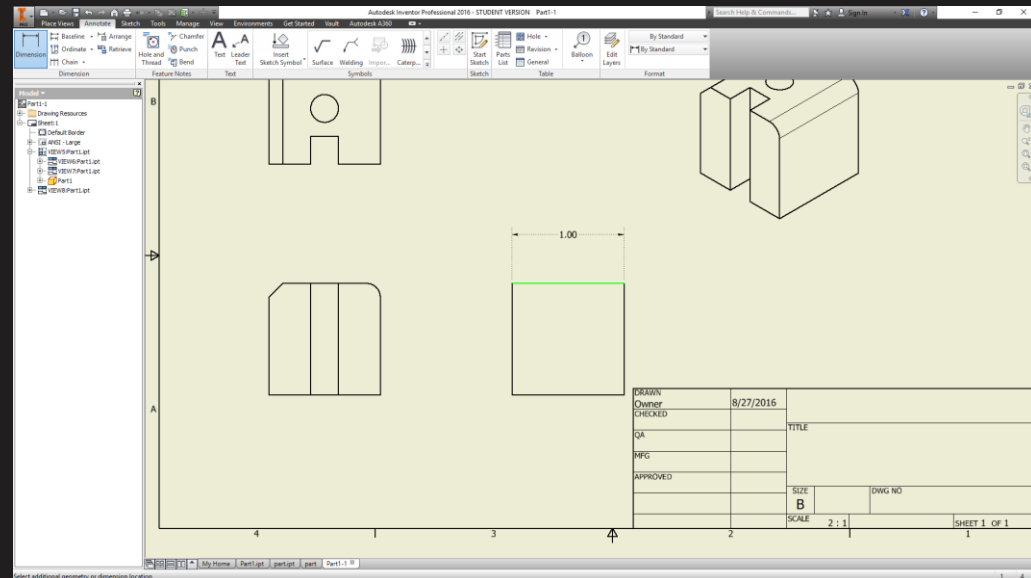
Dimensioning tools

- ❑ Shown below are most of your dimensioning tools, the primary one being “Dimension”



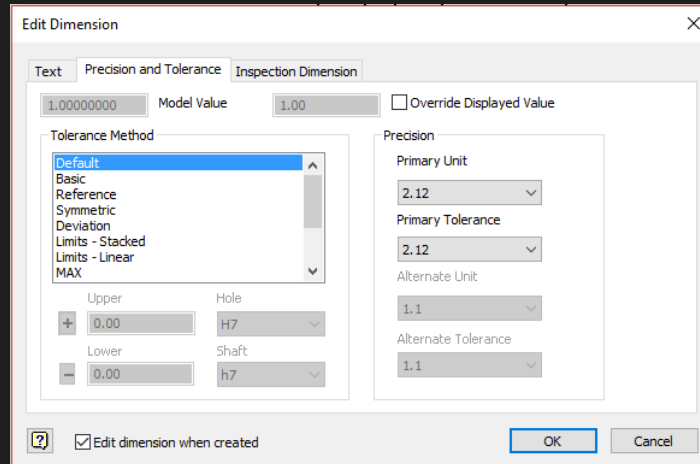
Dimensioning a line

- ❑ Click on a line to bring up the length of said line, similarly to the dimension tool in the first tutorial
- ❑ Click again to place it



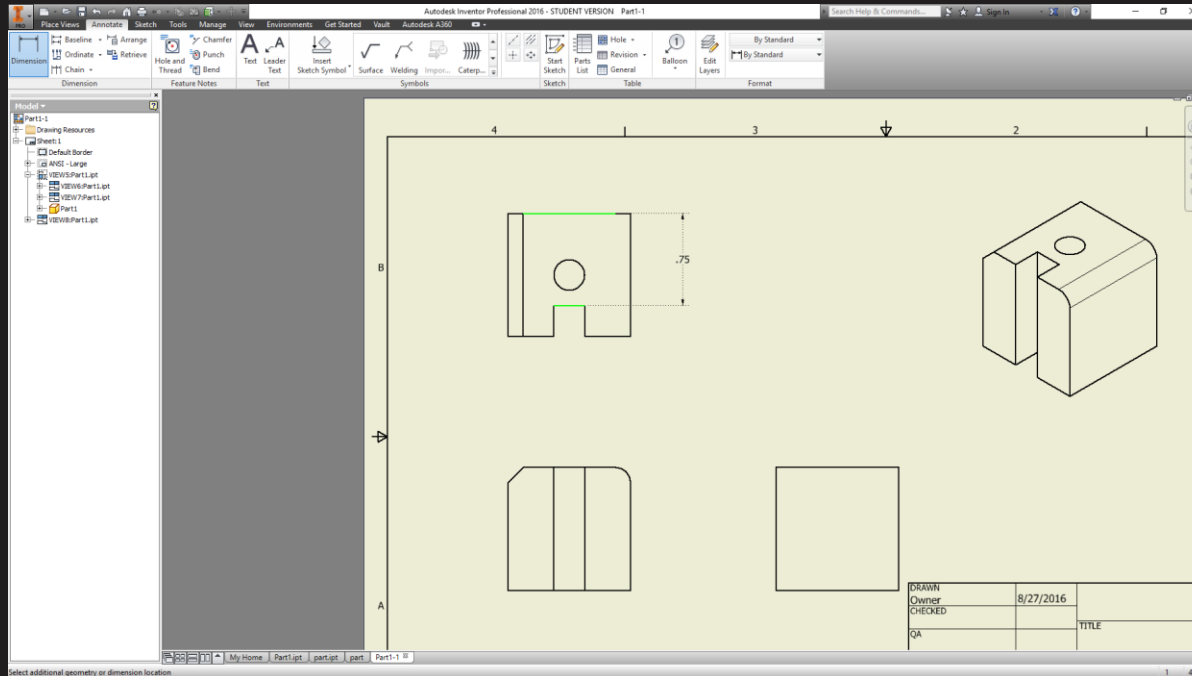
Dimension prompt

- ❑ After you place down your dimension, this prompt will appear
- ❑ For now, all you have to worry about is the “Primary Unit” under the “Precision and Tolerance” tab, which changes the decimal place
- ❑ Some dimensions may require more decimal places than tenths, but we generally don’t go much past hundredths
- ❑ For now just hit ok



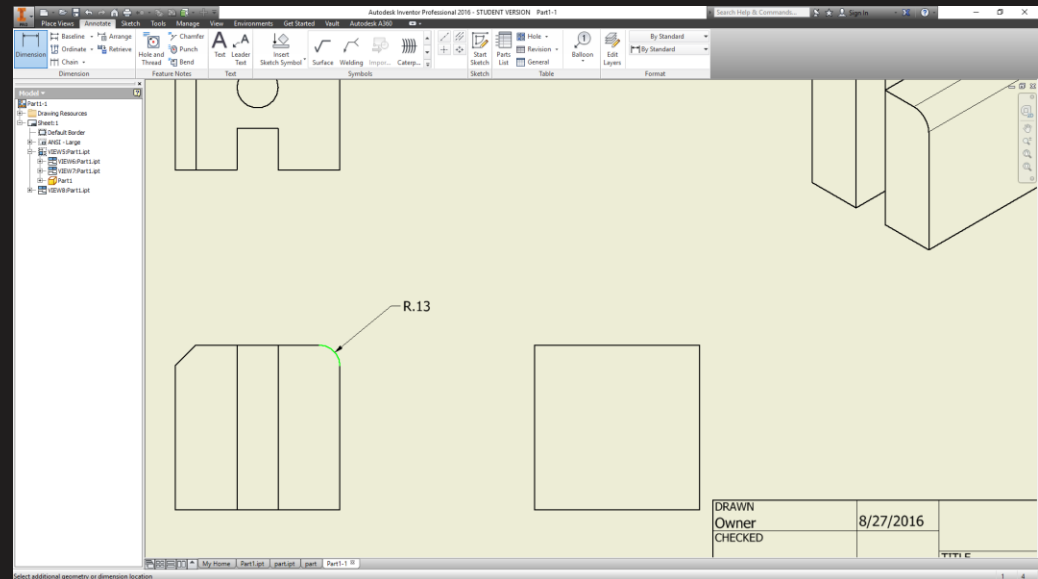
Dimensioning 2 lines

- ❑ Click on 2 lines to bring up the distance between them, or the angle if they are not parallel



Dimensioning a hole or fillet

- ❑ To dimension a hole or fillet, click on the edge and it will bring up its radius on a leader, which can be placed anywhere



Some notes on dimensioning

- ❑ You may notice while dimensioning that the dimension lines sometimes become dotted, try to place the dimensions at that that length, but its not critical
- ❑ Try not to make too many dimensions on the isometric, it can be confusing to read
- ❑ When dimensioning a part, try to do it all in reference to one point, for example when dimensioning something like the slide on your cube, dimension from an edge to one side of the slide, then from that same edge to the other side of the slide
- ❑ Try not to clutter the page with repeat dimensions, because it gets harder to read the critical ones
- ❑ Always check to make sure you got all the dimensions, especially the critical ones
- ❑ Use common sense when deciding how many decimal places to use

Now please fully dimension your part, and show it to a mentor or the current cad lead

Congratulations

Upon showing a mentor or cad lead your layout you will have completed the 2nd part of the drafting tutorial.