

Lesson 3

Inventor 3-D Parametric Modeling

Lofting

Objectives

In this assignment you will complete 1 drawing. A Knob. It should take on class period to do. You will first make the .ipt drawing and then finish with an Engineering Drawing. If the student is unclear how to proceed, it is recommended that the student refers back to initial Inventor curriculum and review the steps to making an .ipt drawing.

Terminology

Lofting:

Google Classroom(GC): An account in which the student will refer to when turning in assignments.

Print screen: Making a copy of the computer screen. This copies the screen temporarily so that it can be pasted in another document and edited such as Google Docs, or Google Slides.

Getting Started

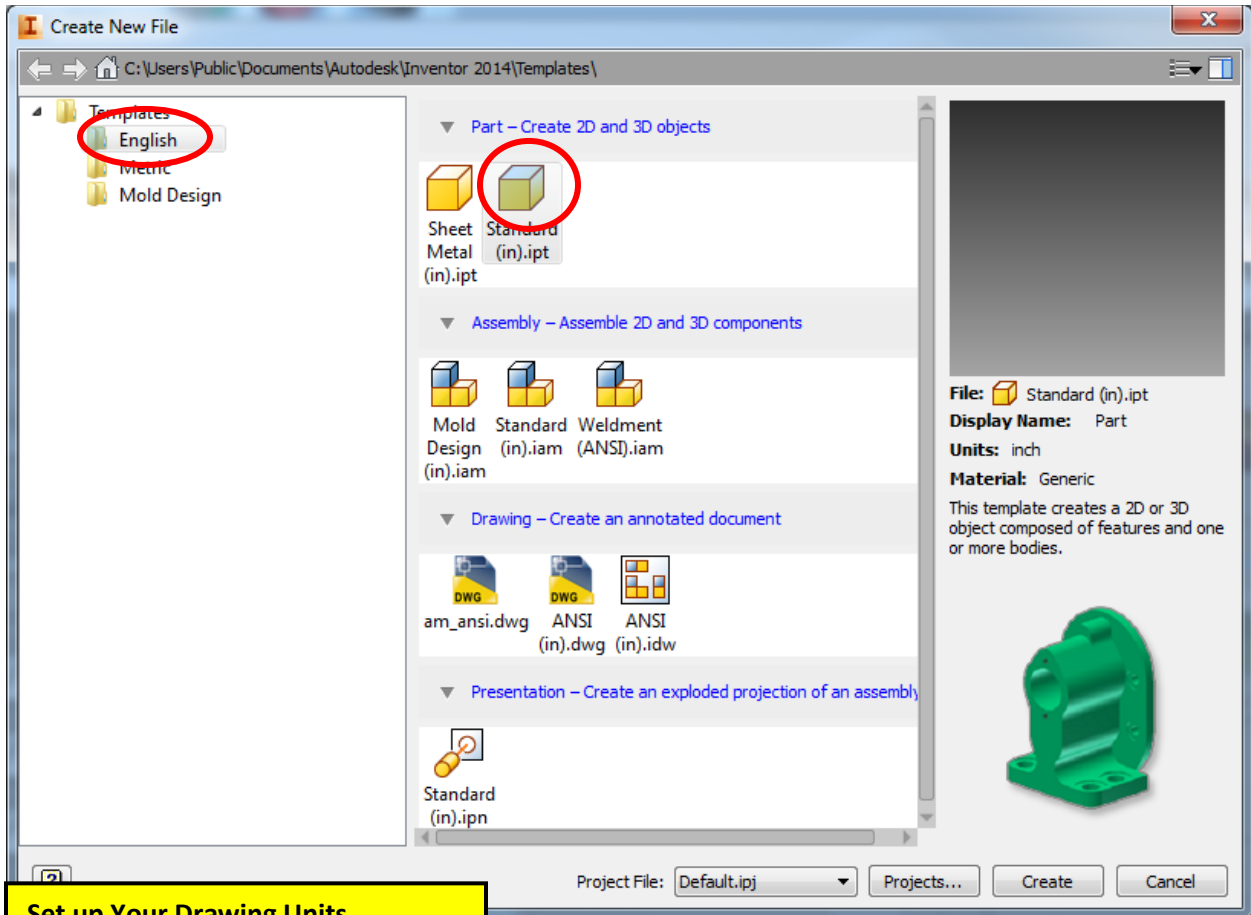
1. Select the Windows icon at the bottom left of the screen:
2. Select "All Programs"
3. Select "Autodesk"
4. Select "Inventor 2017 – English"
5. Select "Inventor 2017" – English" Note: This is a big program and it takes time to load.
6. Draw an .ipt of the Angle Pivot Block, Make an Engineering drawing identical to the one aside from the Title block which should include your information.

Save Your Work

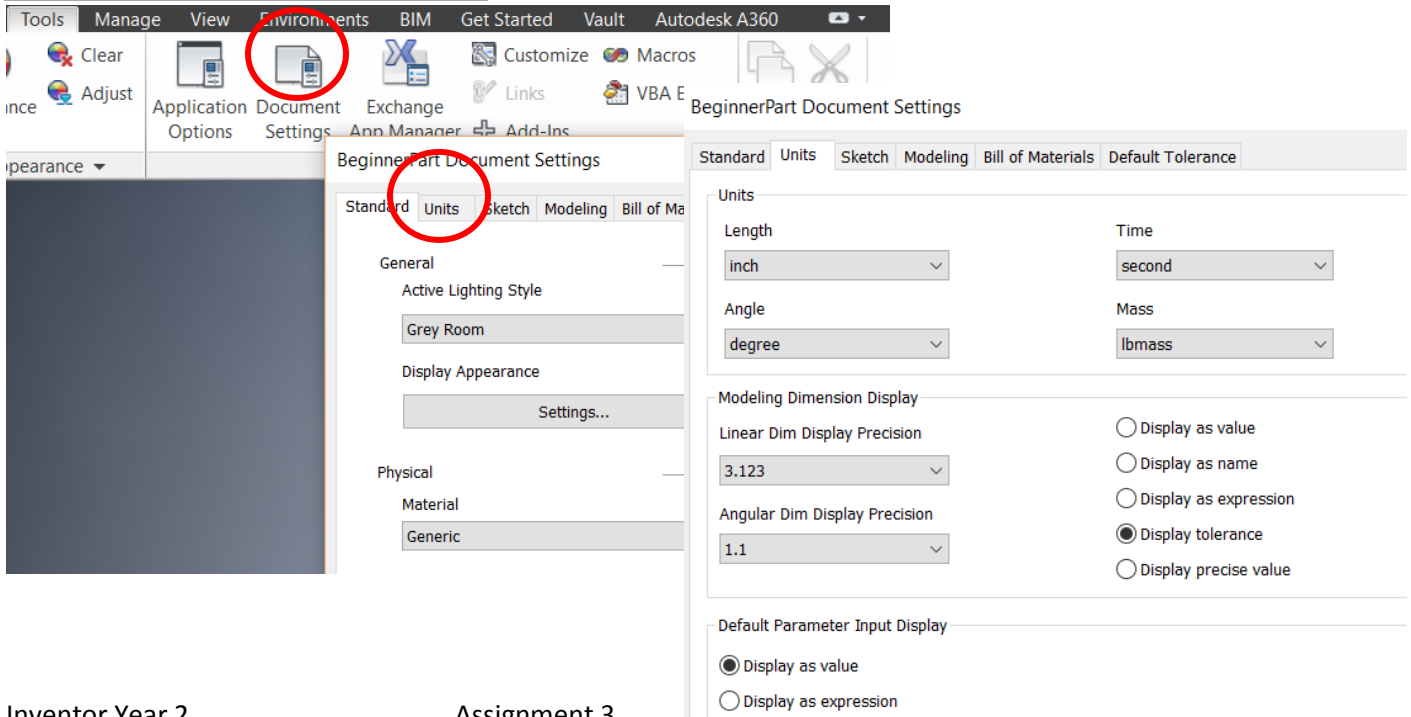
Before you begin the drawing:

1. Create a File and name it Assembly Drawing of Knob.
2. Save the new .ipt as Your Last Name, First name, Knob.

Start a New .ipt Drawing

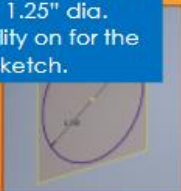
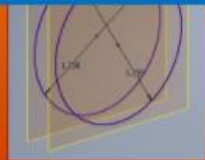
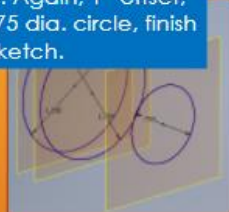





Set up Your Drawing Units



Begin Drawing your .ipt Using the instructions below.

Advanced Topics – Loft

1. Create a new sketch on the YZ plane, 1.25" dia. Turn the visibility on for the plane, finish sketch.
2. Create a new plane offset .25", draw an identical circle on the new plane, finish sketch.
3. Again, 1" offset, .75 dia. circle, finish sketch.
4. Follow with 1" offset, 1.125 dia. Circle, 3" offset, 1.125 dia Circle, .5" offset, .5 dia. Circle, finish sketch.
5. Select each sketch beginning from one end, then click OK to create the loft.
6. Extrude a 1/4" dia. cir., 3/4" from face, and 1/4"-20 Threads.

Create a new .idw drawing and lay it out exactly as below.

Fill out the Title Block as follows

DRAWN David Johnson	6/4/2016	JONESBORO HIGH SCHOOL		A
CHECKED DCJ	6/4/2016	TITLE		
QA		Knob		
MFG KENT PATR TEACHER				
APPROVED TFJ	6/4/2016	SIZE B	DWG NO #AD4	REV R-2
		SCALE 1 / 2	SHEET 1 OF 1	

Save Your Work

Save your work.

Submit Your Work for a Grade

Take a Print Screen of your drawing. Paste it into a Google Doc and submit it for a grade.

Terms to Know

Instructions: Copy the following terms into your notebook and define them.

.ipt drawing
Print Screen

.idw drawing
Projected view
Isometric drawing
Parametric drawing