Sketch Constraints III

Using Autodesk Inventor

Continued from Sketch Constraints II
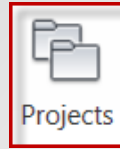
INITIALIZATION

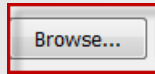- Start: Inventor
- Select:
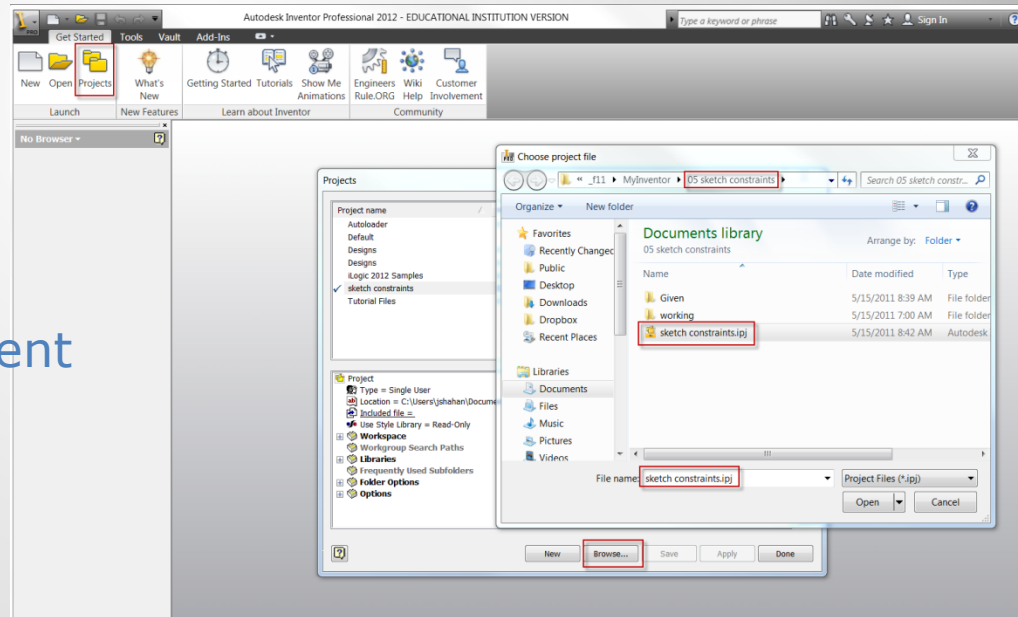 - ☑Projects
  - ☑Browse: Browse...
  - ☑ Project Name:

Example Project Window
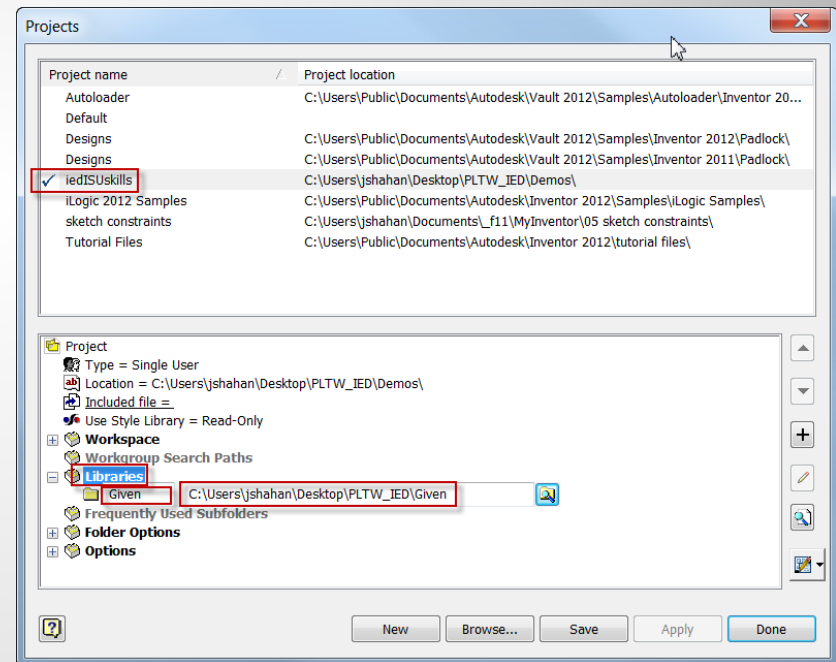- Your folders will be different

a. Startup

- Find / open
  - ➢ ...Project
- Select / Verify
  - ☑ Workspace
  - ☑ Libraries

Example Project Window
- Your folders will be different

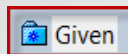## a. Inventor: Folder | Project

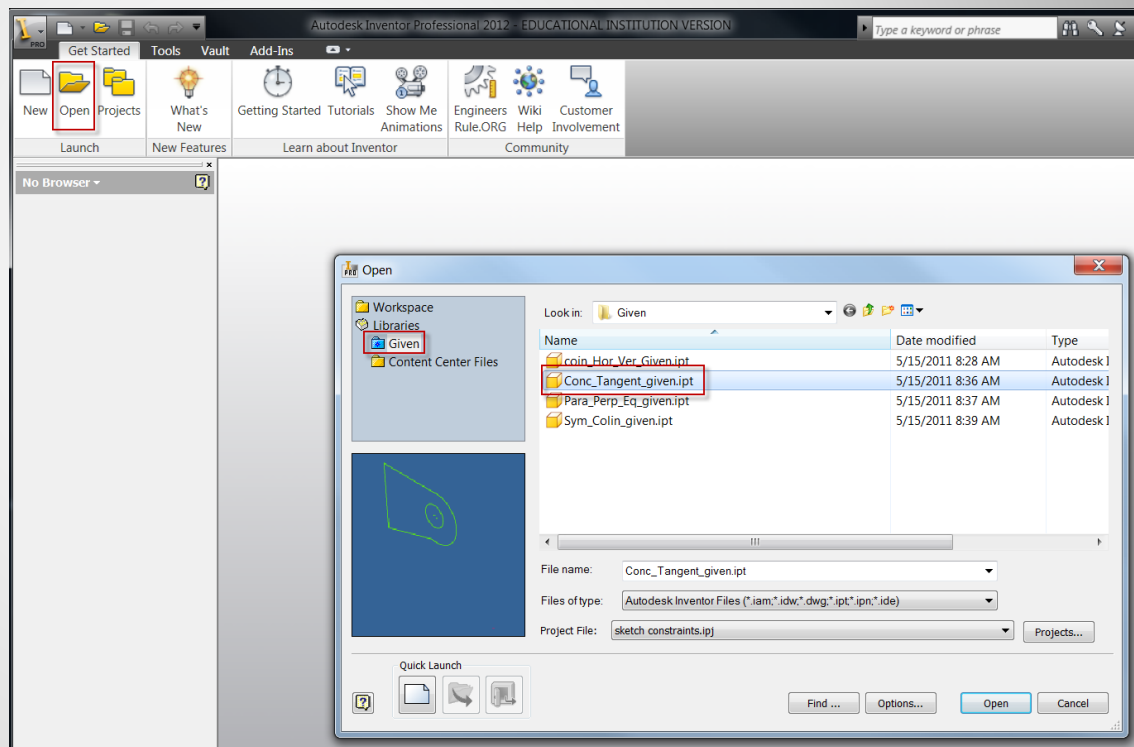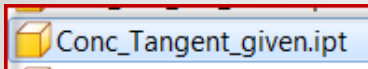2D Sketch Constraints
- Concentric
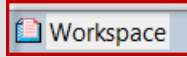- Tangent

4. EXAMPLE 3:

- Open

  ☑ Library:
  ☑ File:

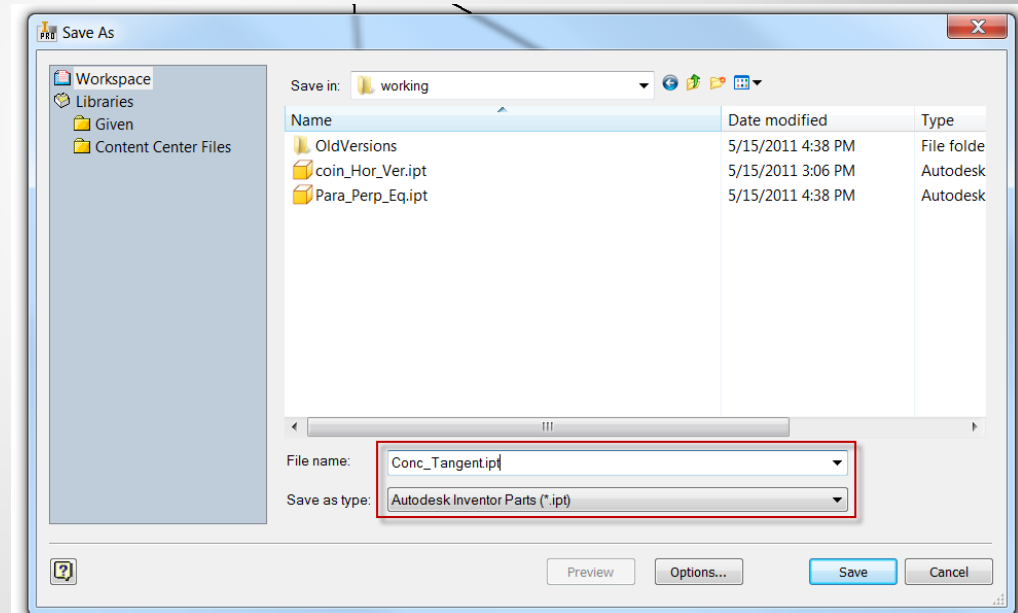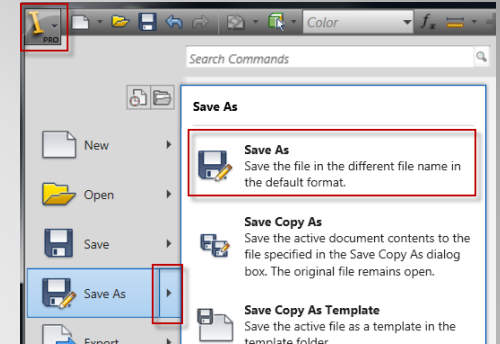# a. Open (given file)

- Save-As:

  - ☑Save in: Workspace
  - ☑File name

    Conc_Tangent.ipt

    Autodesk Inventor Parts (*.ipt)
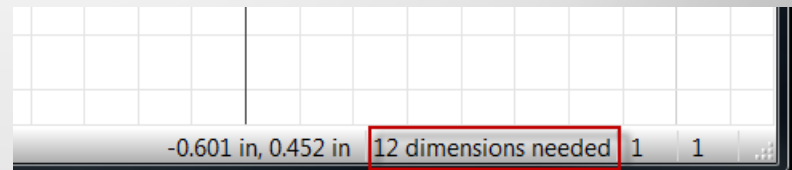 - ☑File type:

b. Save a Copy
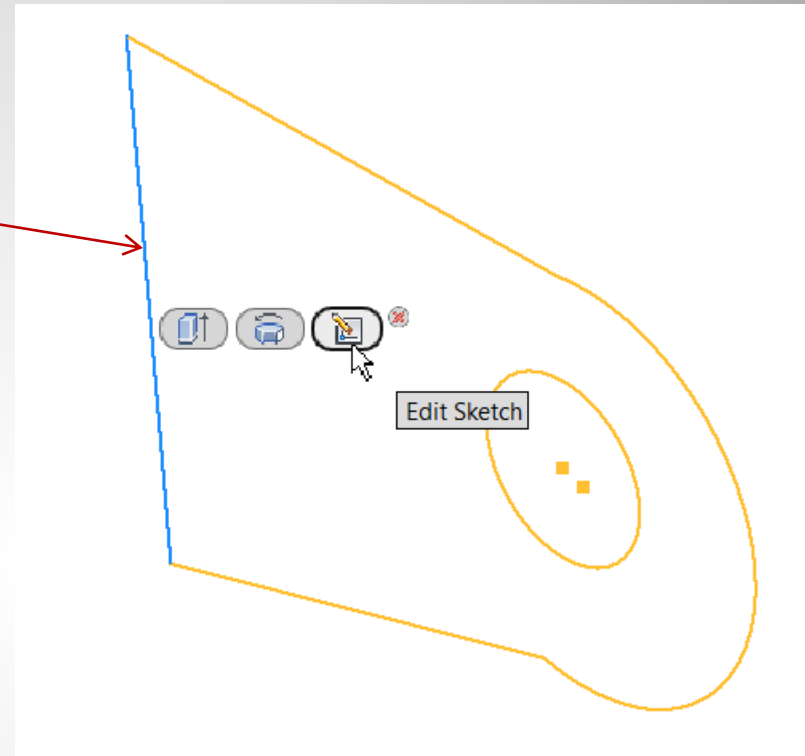
- Pick <LMB>
  - ☑ the line
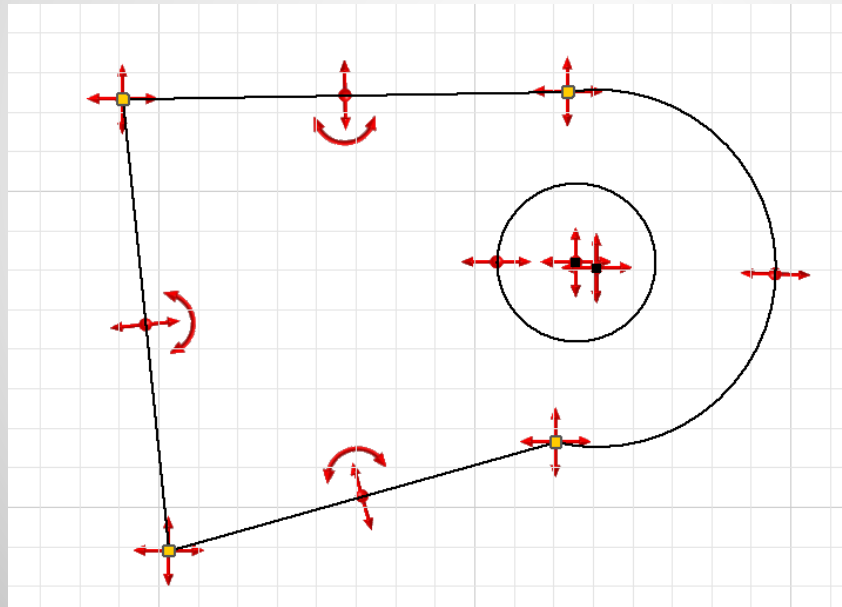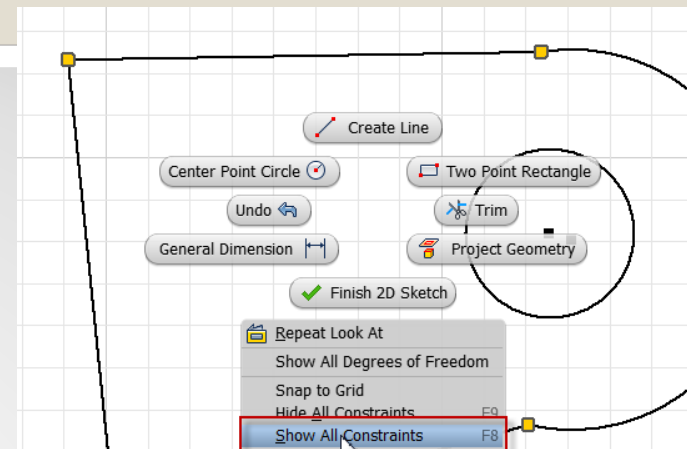 - ☑ Edit Sketch
- Note: 12 dimensions needed

c. Edit the sketch

- De-select: <Esc> key
- Pop-up Menu: <rmb>
  - ☑Pick <lmb>: | Show All Degrees of Freedom |
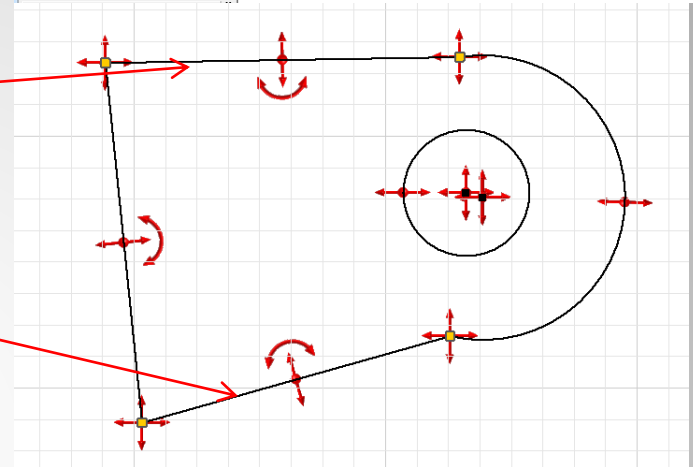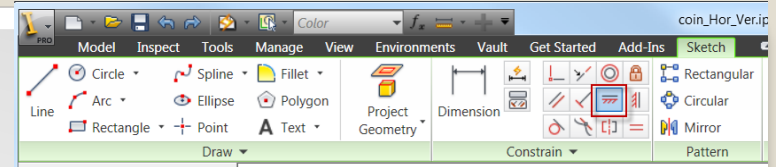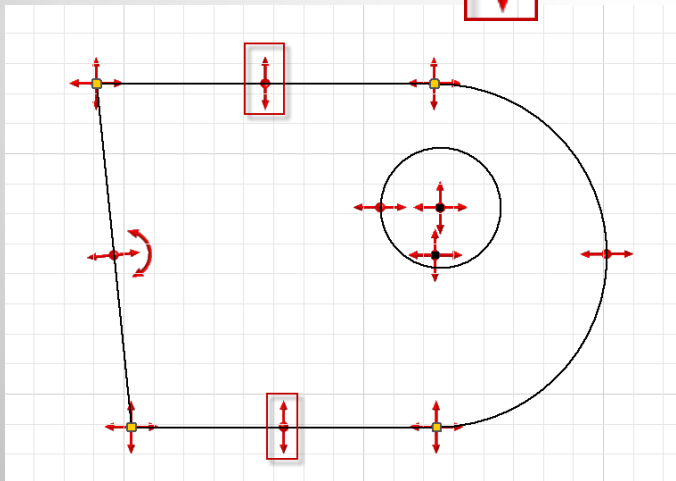- Display:

d. Show Degrees of Freedom

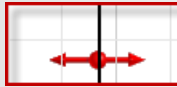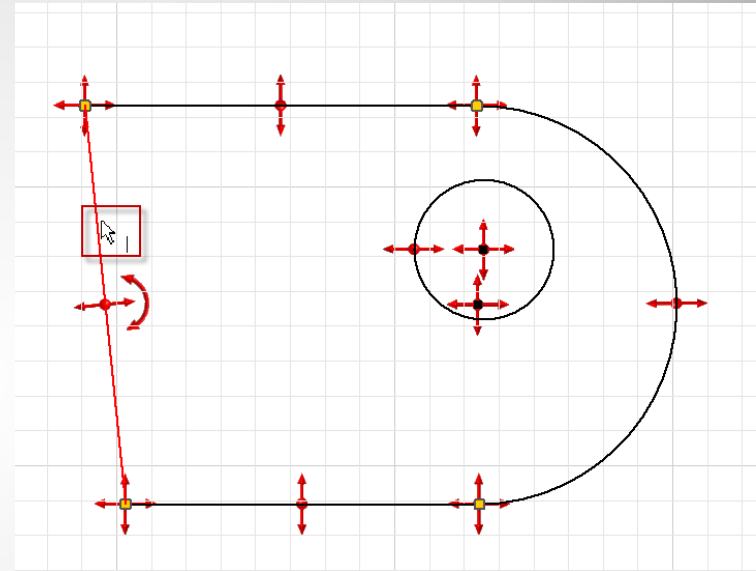- Pick <lmb>:
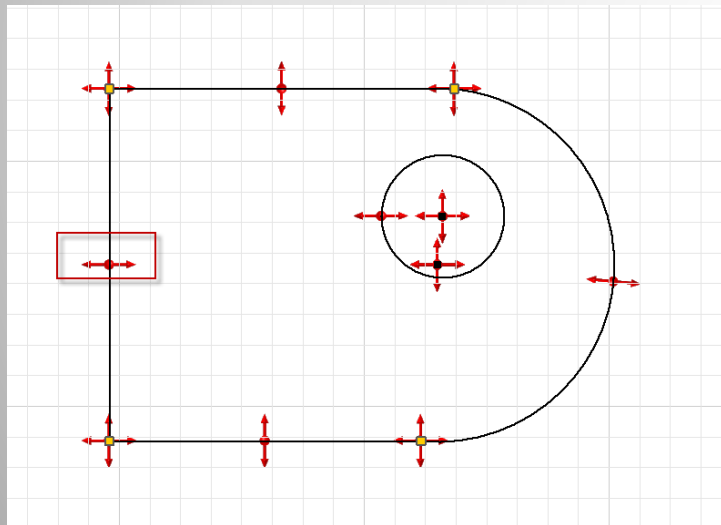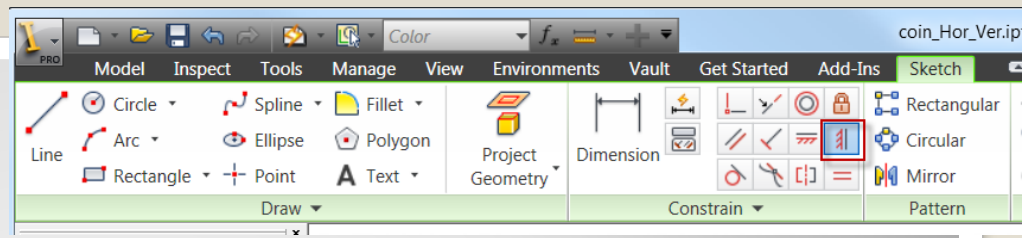 - ☑ Horizontal:
  - ☑ Line 1:
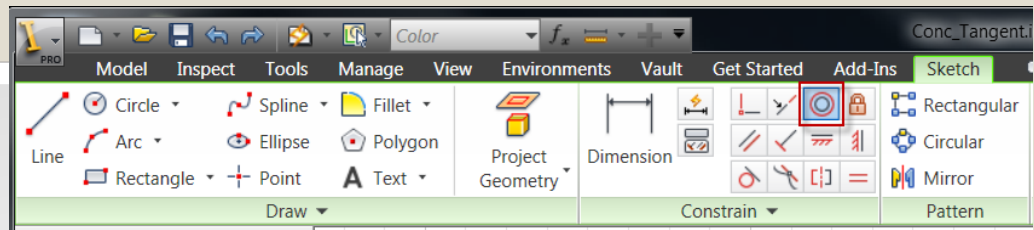 - ☑ Line 2:
- Verify Results:

e. Add: horizontal line

- Pick <lmb>:
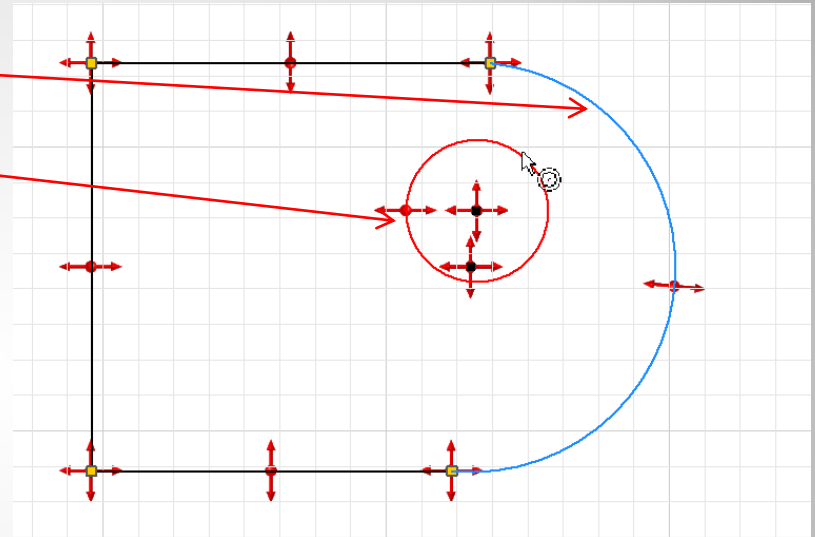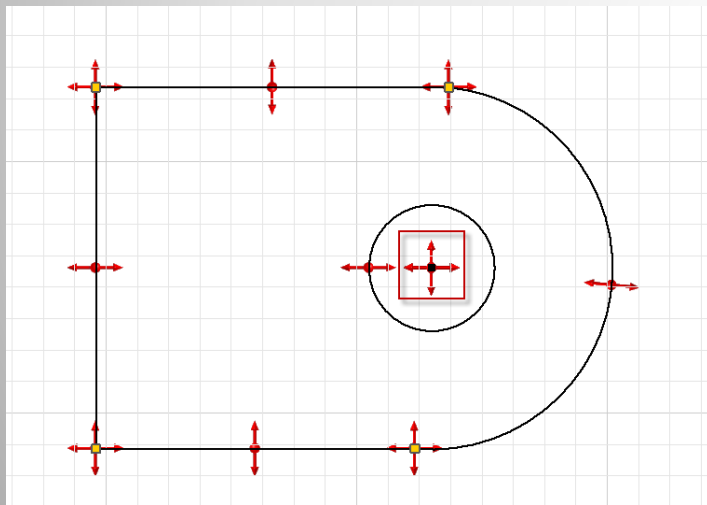 - ☑Vertical:
  - ☑Line:
- Verify:

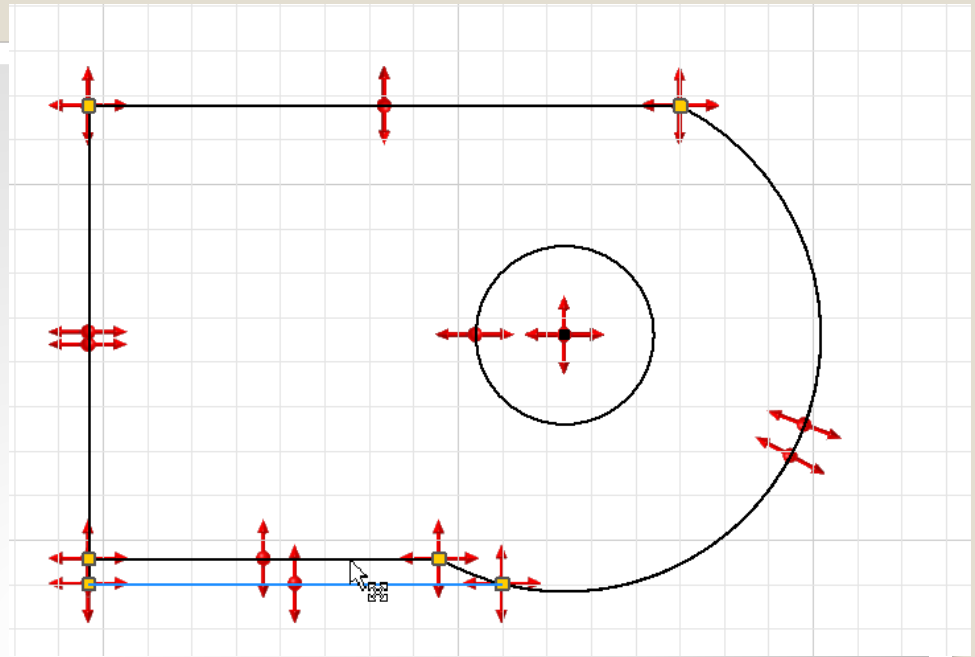## f. Add: vertical line

- Pick <lmb>:
  - ☑ Concentric:
  - ☑ First Circular:
  - ☑ Second Circular:
- Verify Results:

g. Add: concentric constraint

- Pick <lmb>:
  - ☑Line:
  - ☑New Position:
  - ☑Second Circular:
- Note:
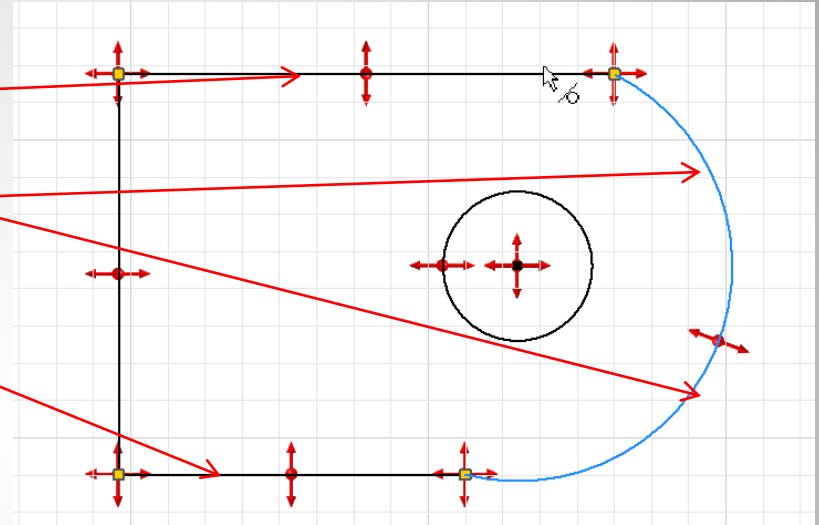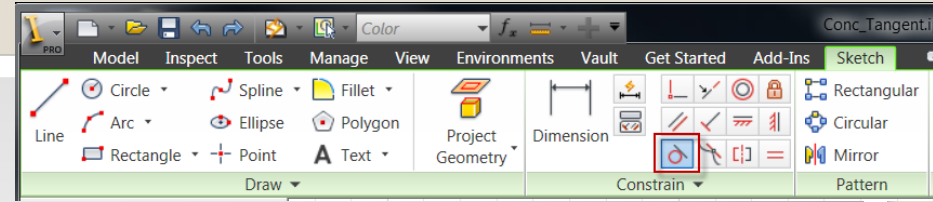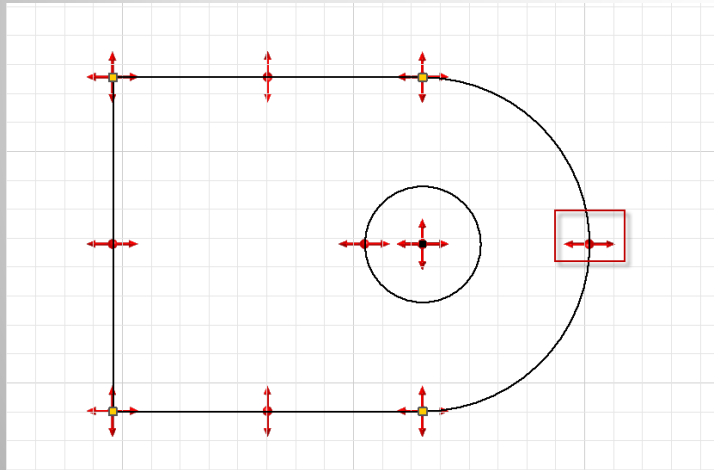 - Distortion

h. Drag: Horizontal Lines
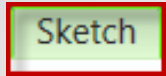
- Pick <lmb>:
  - ☑ Tangent:
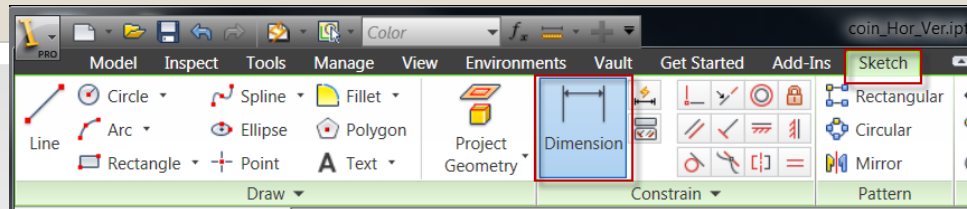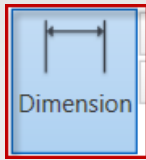 - ☑ Curve 1:
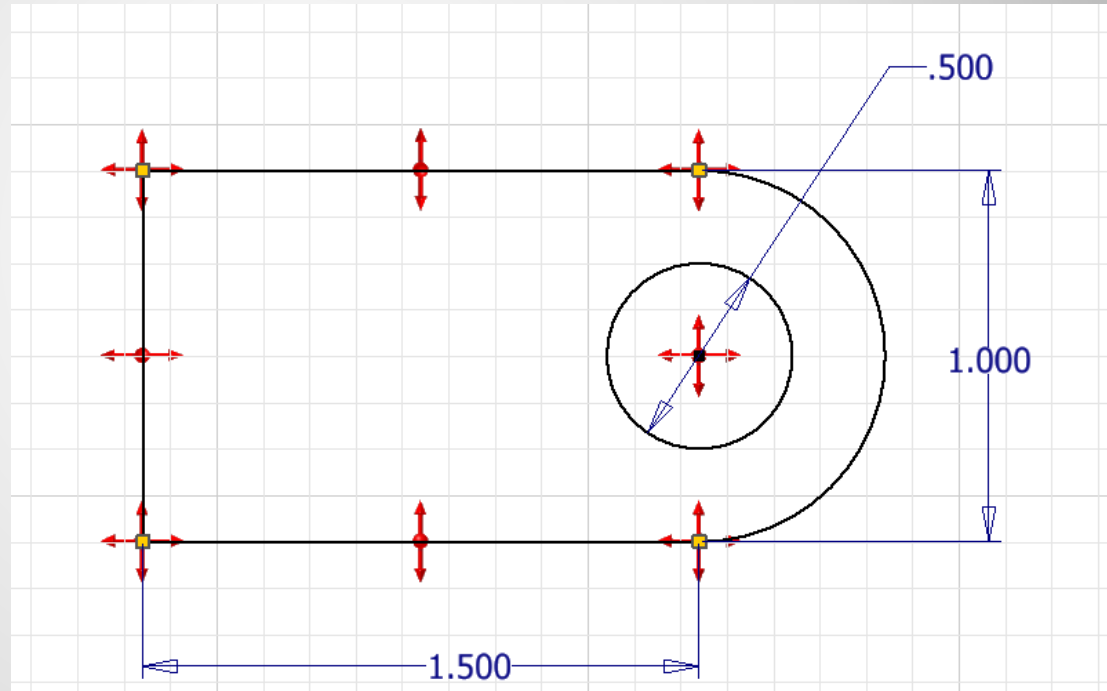 - ☑ Curve 2:
- Verify:

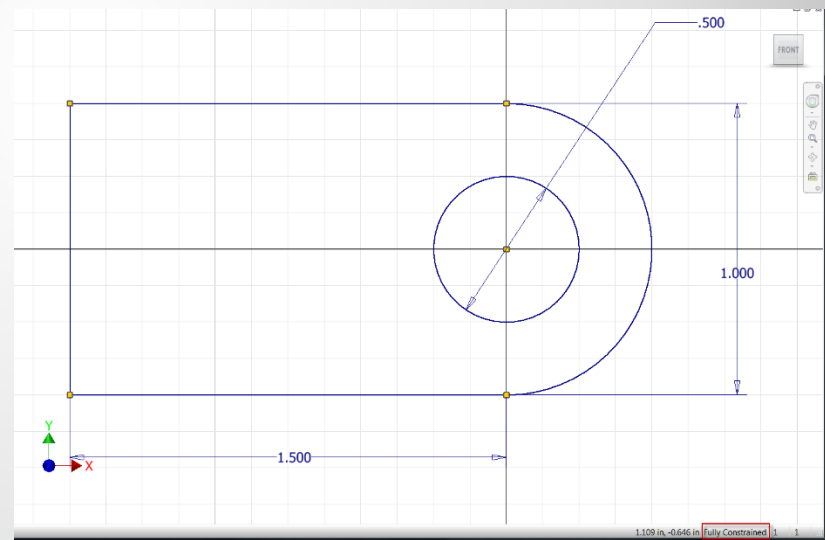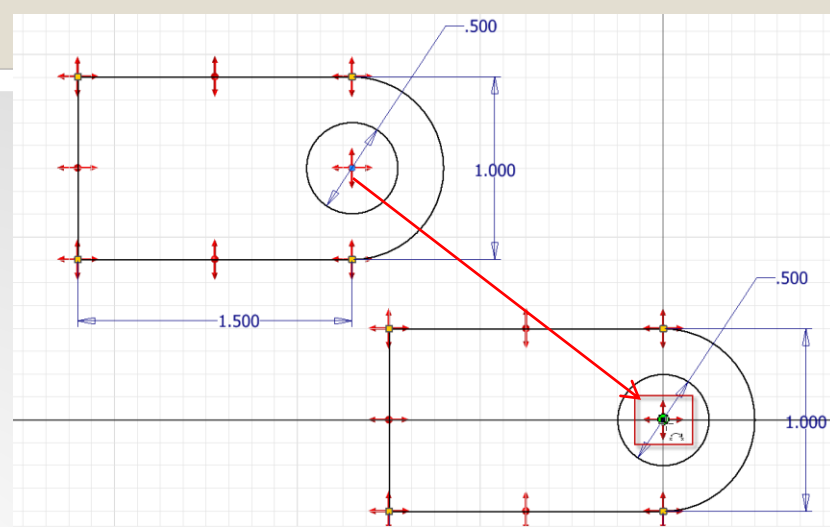# i. Add: Tangent

- Pick <lmb>:
  - ☑Sketch:
  - ☑Dimension:
- Results:
  - Values:
  - Restraints:
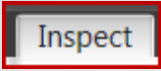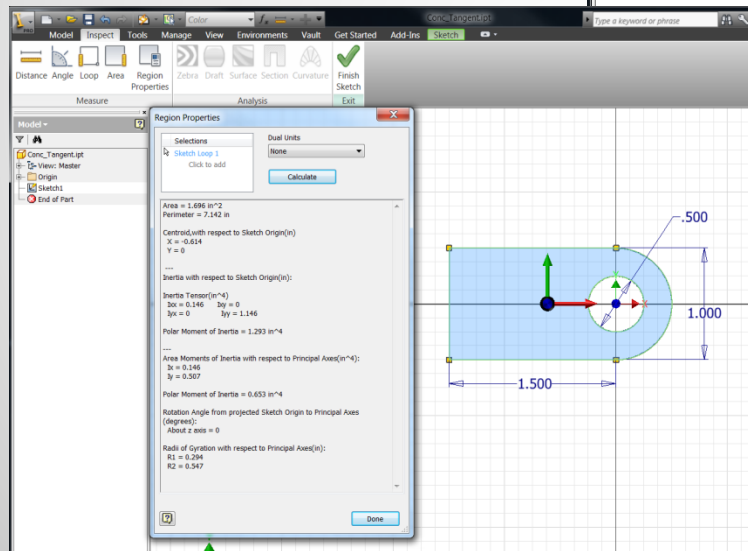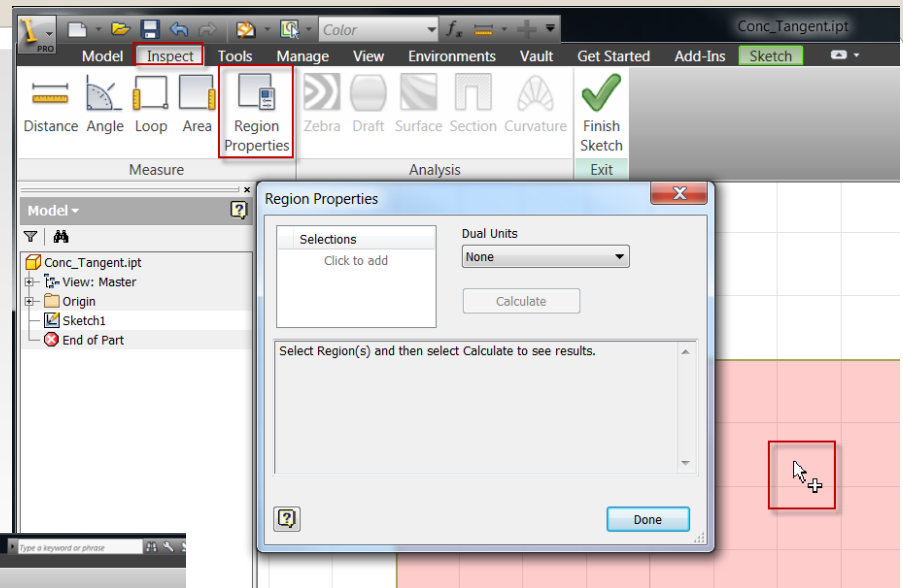
j. Dimension

- Pick <lmb>: corner
- Drag: to origin
- Results: Coincident
- Note:
  - No Degrees of freedom
  - Fully Constrained

I. Coincident - origin

- Pick <lmb>:
  - ☑ Inspect
  - ☑ Region Properties
  - ☑ The region:
- Results:

m. region properties