Sketch Constraints IV

Using Autodesk Inventor

Continued From Sketch Constraints III
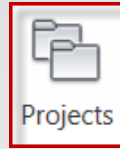
1.INITIALIZATION

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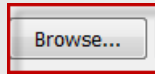
- Select:
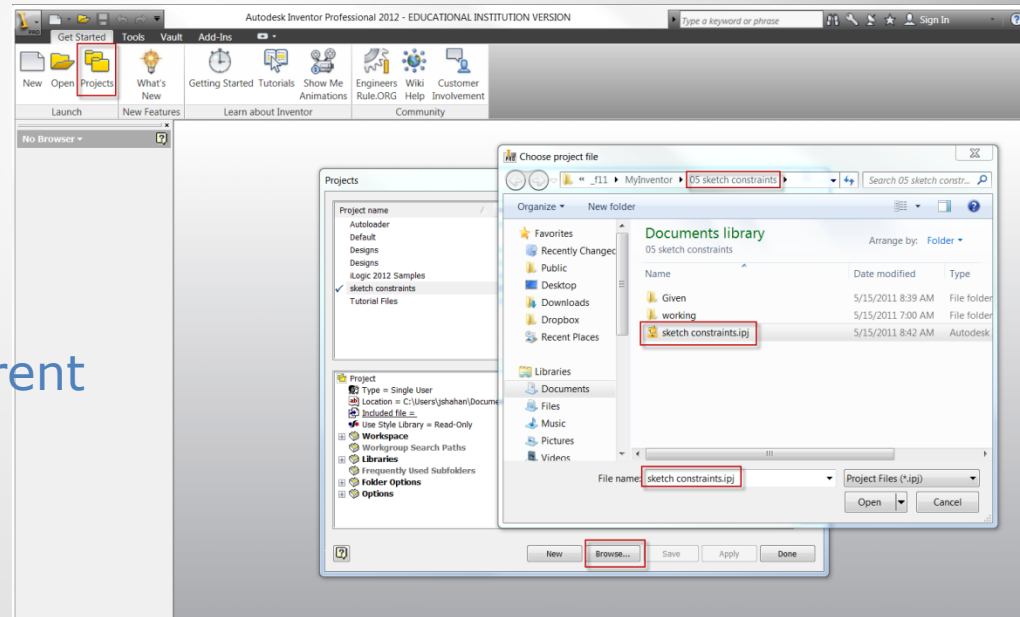 - ☑Projects
  - ☑Browse:
  - ☑ Project Name:

Example Project Window
- Your folders will be different
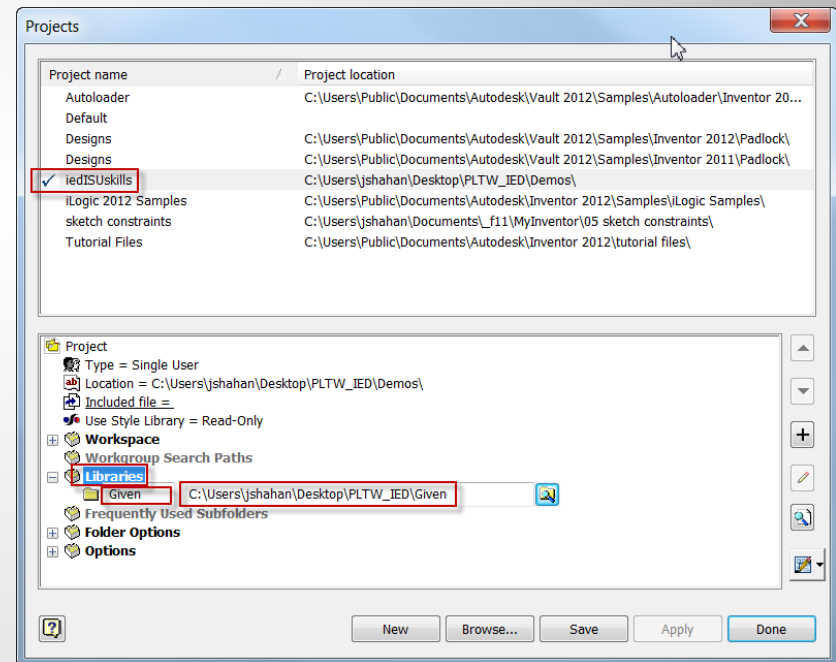
a. Startup

- Find / open
  - …Project:
- Select / Verify
  - ☑Workspace
  - ☑Libraries

Example Project Window
- Your folders will be different
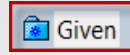

a. Inventor: Folder | Project

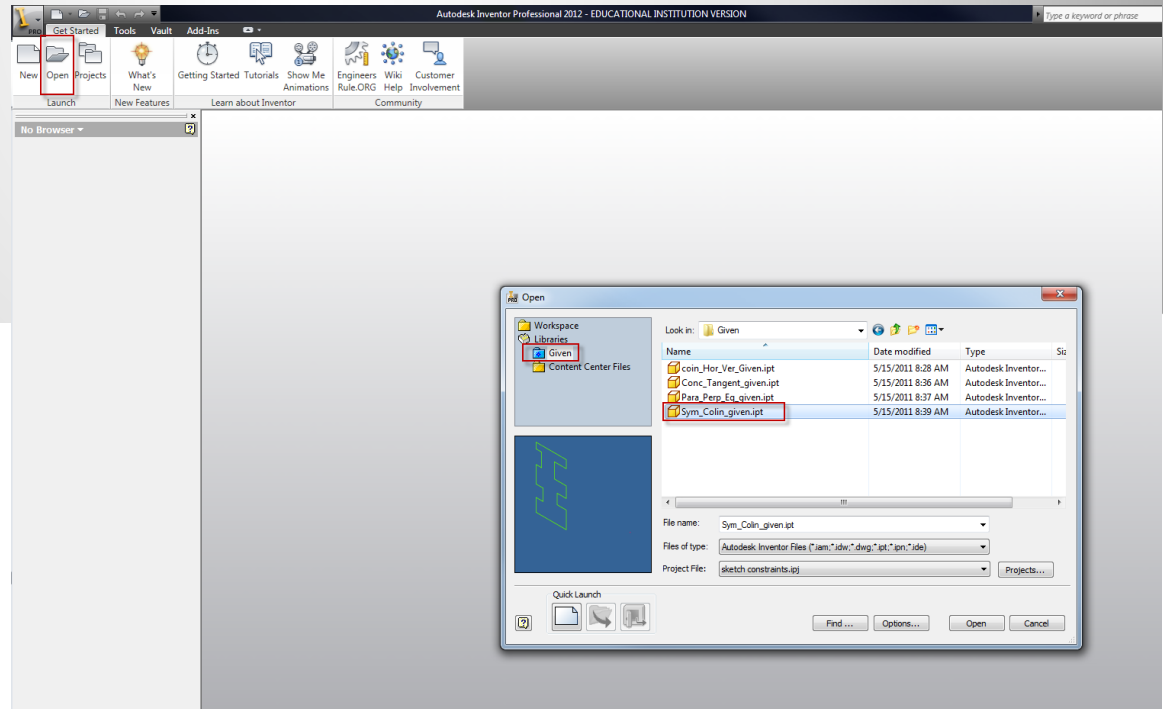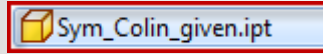2D Sketch Constraints

- Symmetrical
- Colinear

EXAMPLE 4

Open

- **☑ Library:** Given
- **☑ File:** Sym_Colin_given.ipt

a. Open (given file)

- Save-As:
  - ☑ Save in: Workspace
  - ☑ File name: Sym_Colin.ipt
    Autodesk Inventor Parts (*.ipt)
  - ☑ File type:
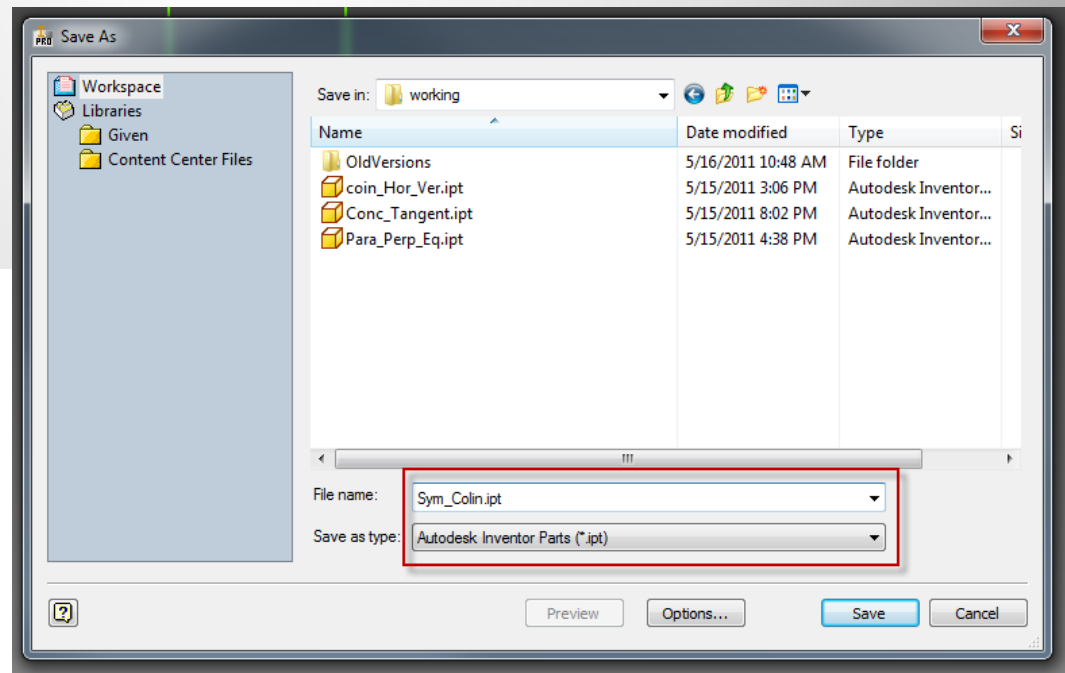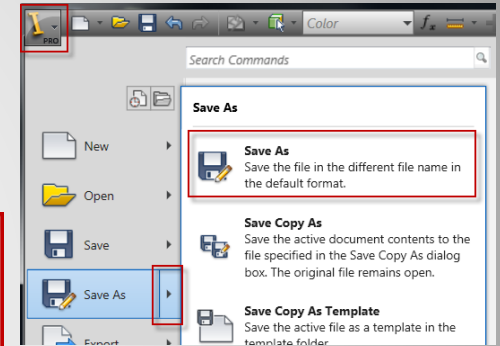
b. Save a Copy
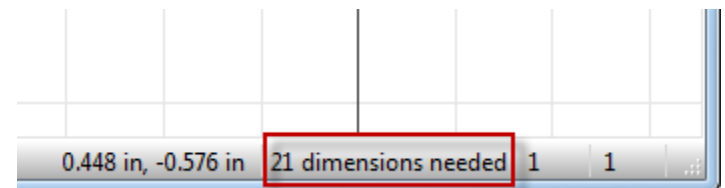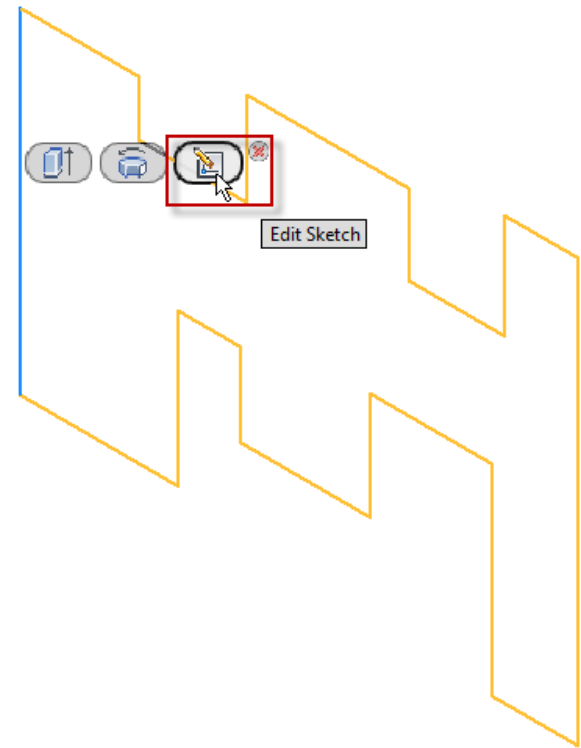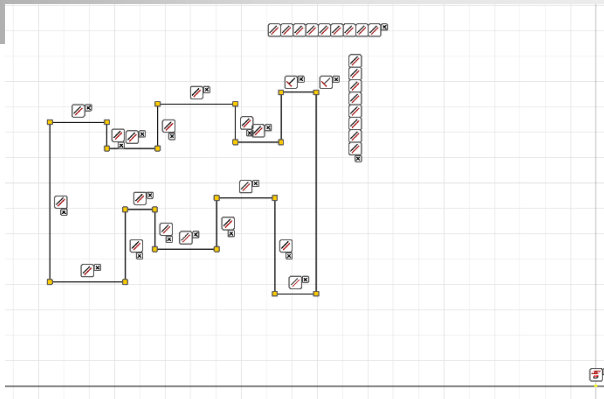
- Pick <LMB>
  - ☑the line
  - ☑Edit Sketch

- Note:
  - Parallel / Perpendicular
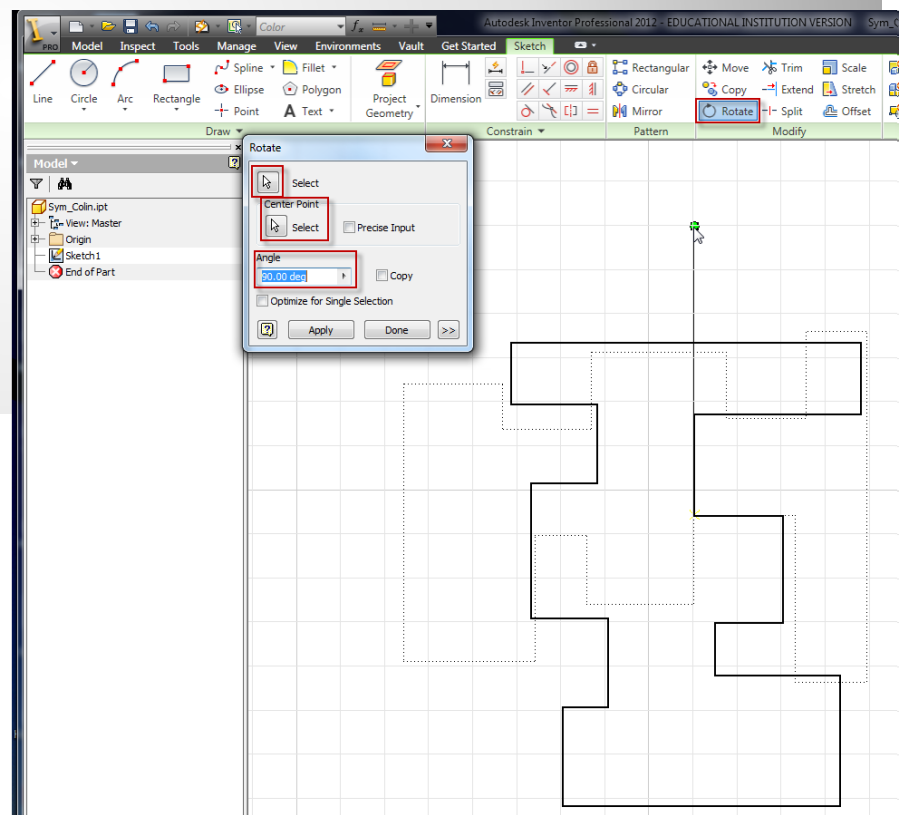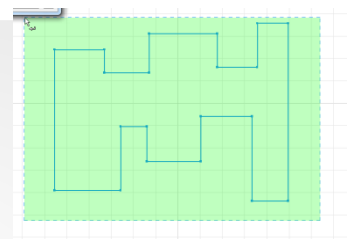 - 21 dimensions needed

c. Edit the sketch

☑ Rotate:

☑ Select: <Window>

☑ Center Point

☑ Angle

d. Sketch - Rotate

☑Move: [Move]
　☑Select: all
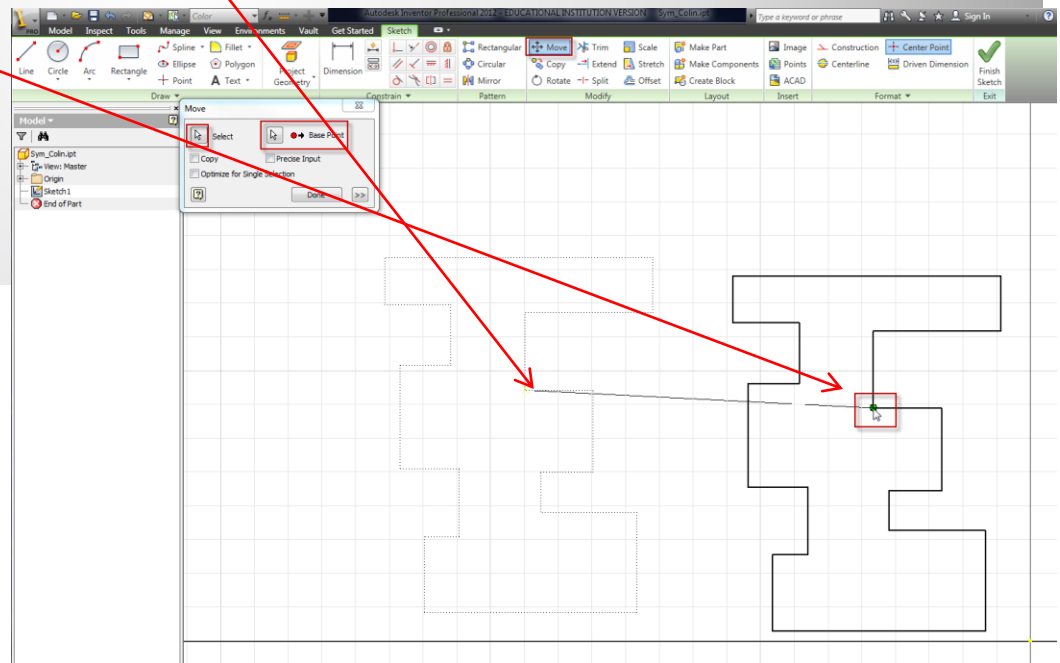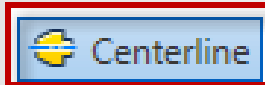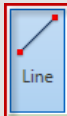　☑Base Point: [Base Point] Select
　☑Locate
☑Line 2:
● Verify Results:

e. Sketch: move
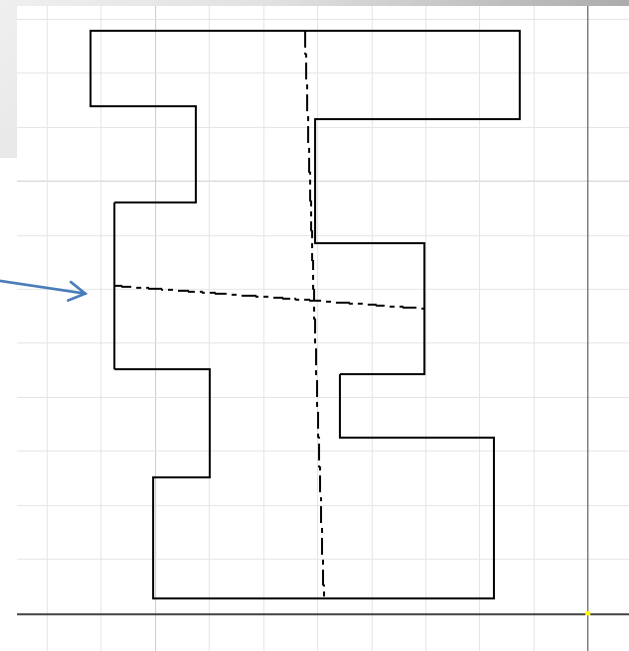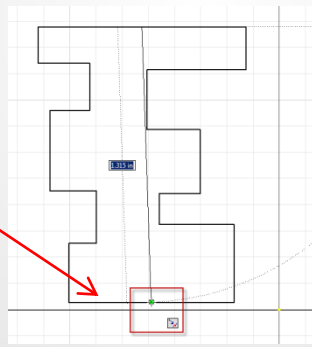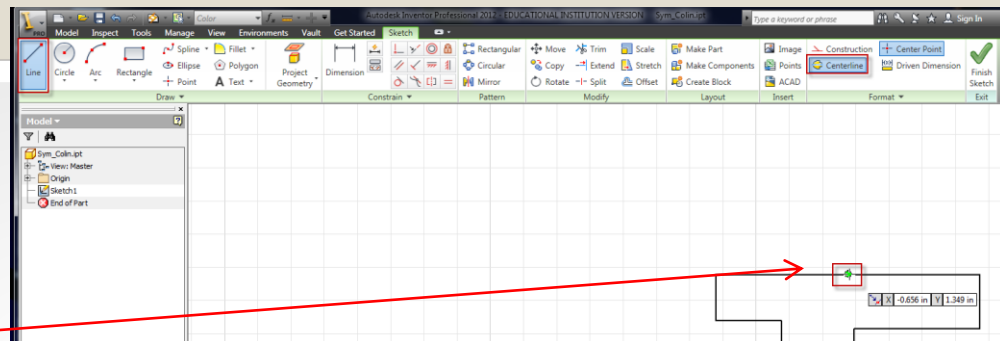
☑ Centerline

☑ Line
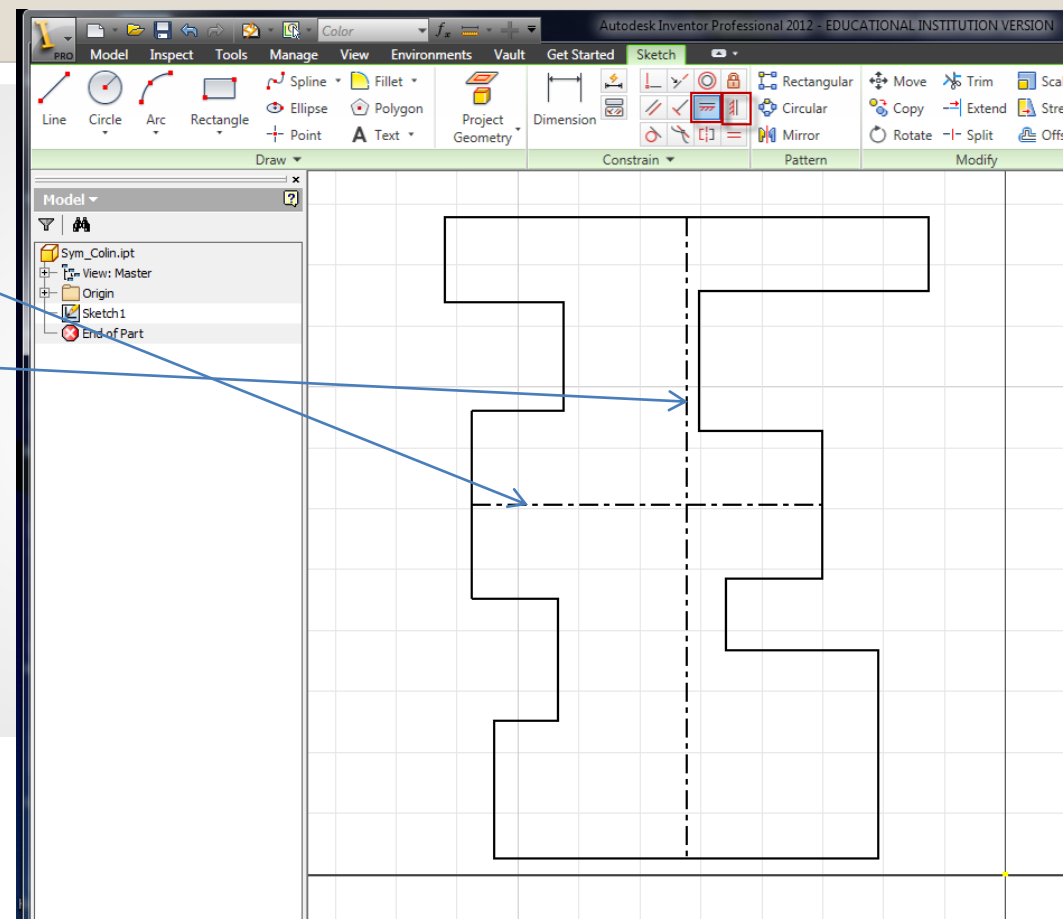
☑ Midpoint:

☑ Midpoint:
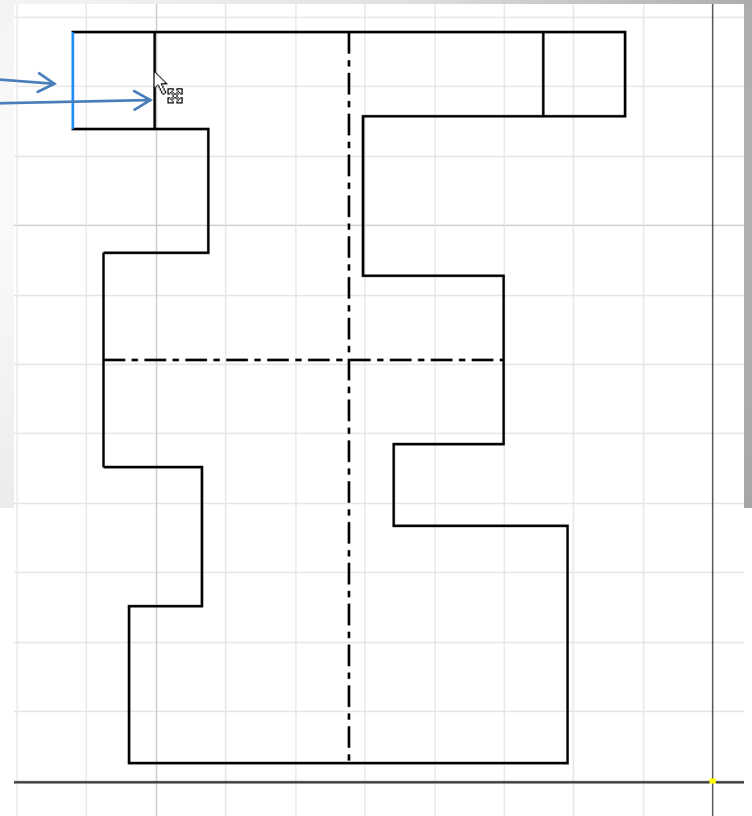
☑ Vertical:

☑ Line:

• Repeat:

f. Centerlines

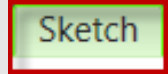**Lines:**
- ☑ Horizontal
- ☑ Vertical

g. horizontal -vertical

- Drag:
  - ☑Initial:
  - ☑Final:
- Note:
  - Symmetry

h. Position - Verify

i. Dimension

- Pick <lmb>:
  - ☑ Sketch:
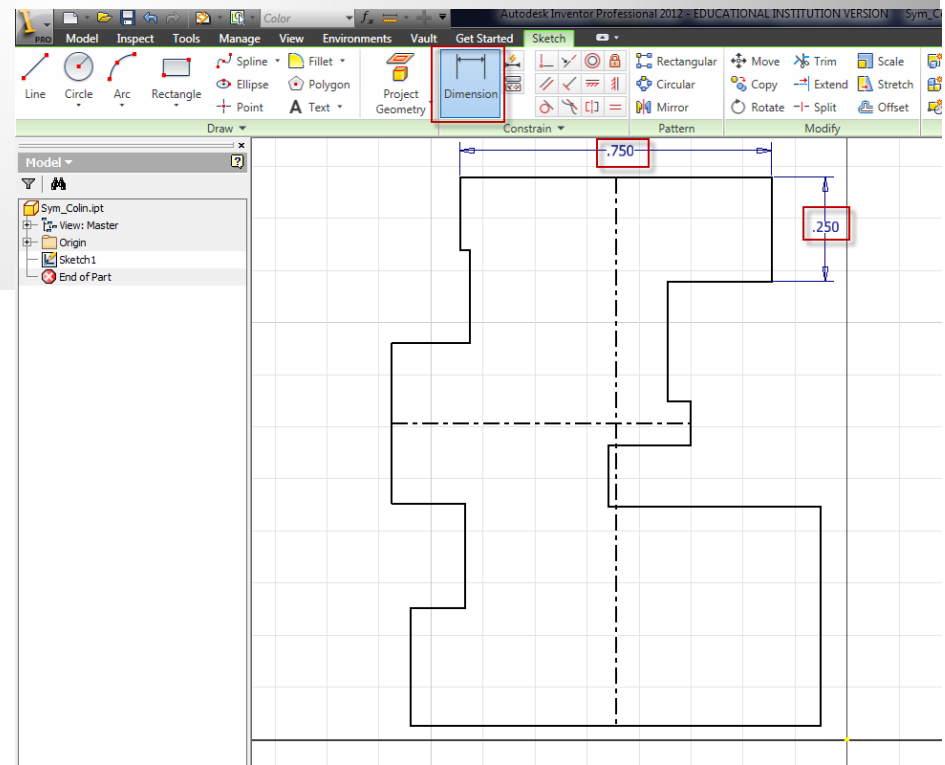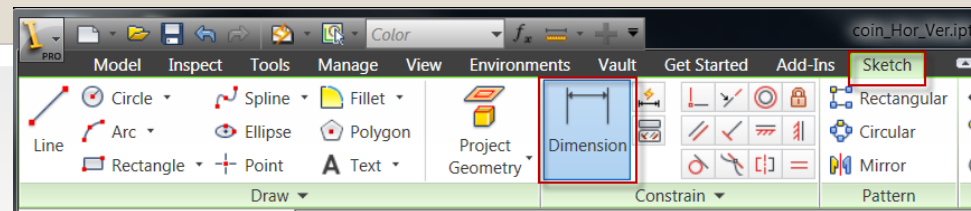 - ☑ Dimension:
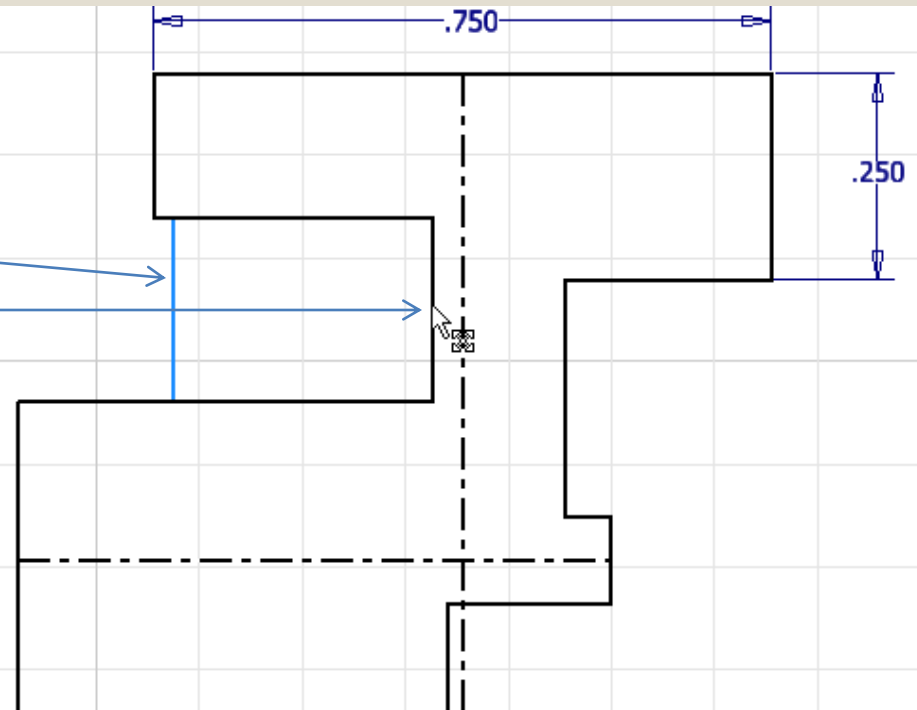- Results:
  - Values:
  - Restraints:
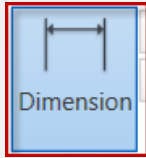
- Drag:
  - ☑Initial:
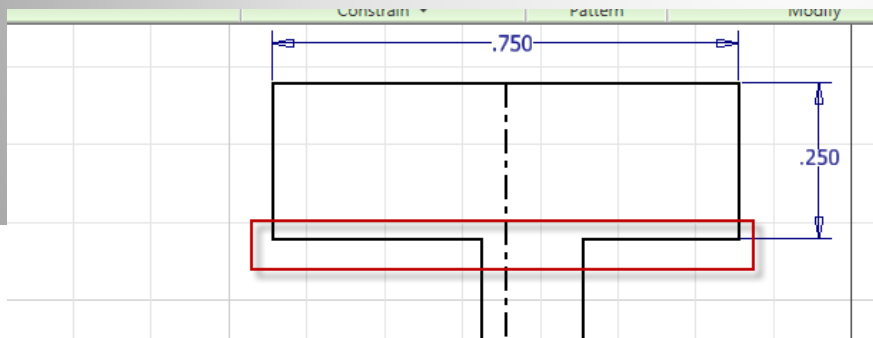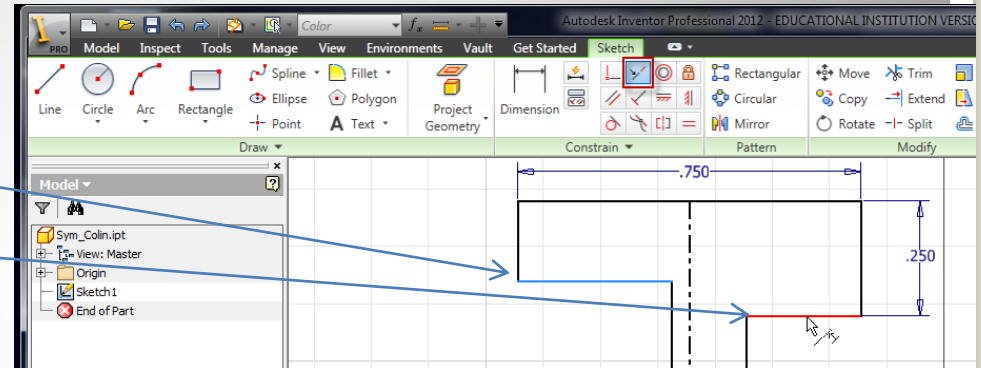 - ☑Final:
- Note:
  - S

h. Position - Verify

☑Colinear
  ☑Line 1
  ☑Line 2
- Results:

i. Add Constraint
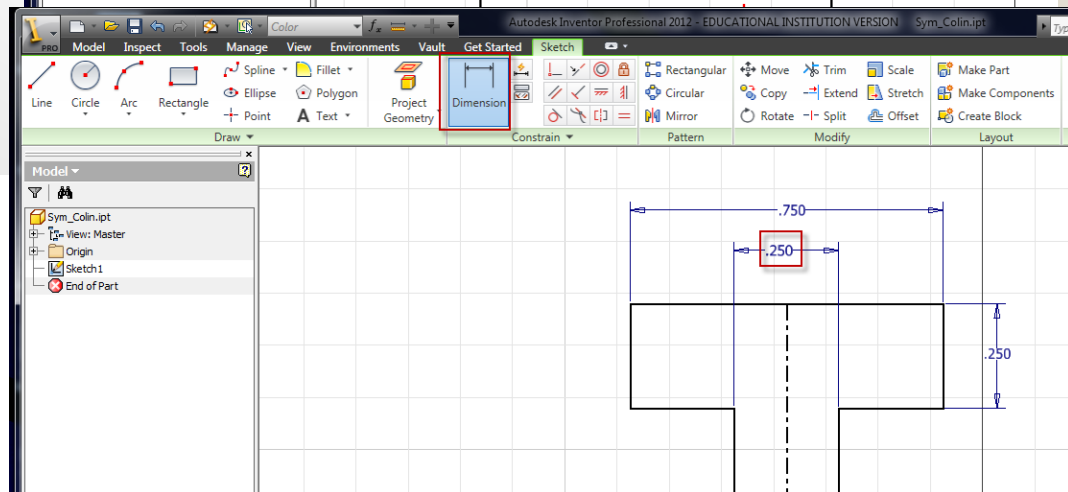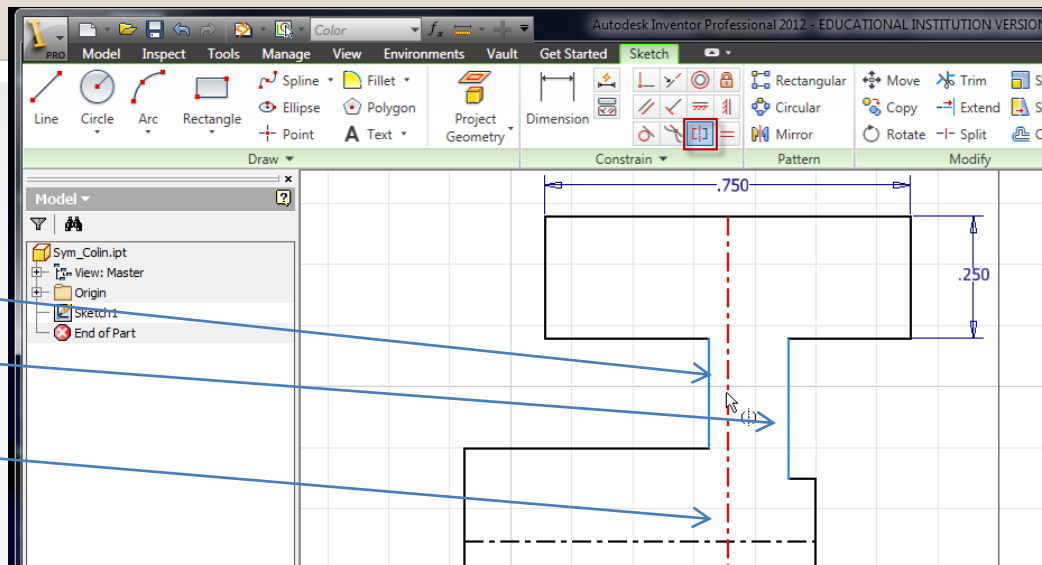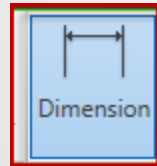
☑ Symmetric
   ☑ Line 1
   ☑ Line 2
   ☑ Centerline
• Dimension
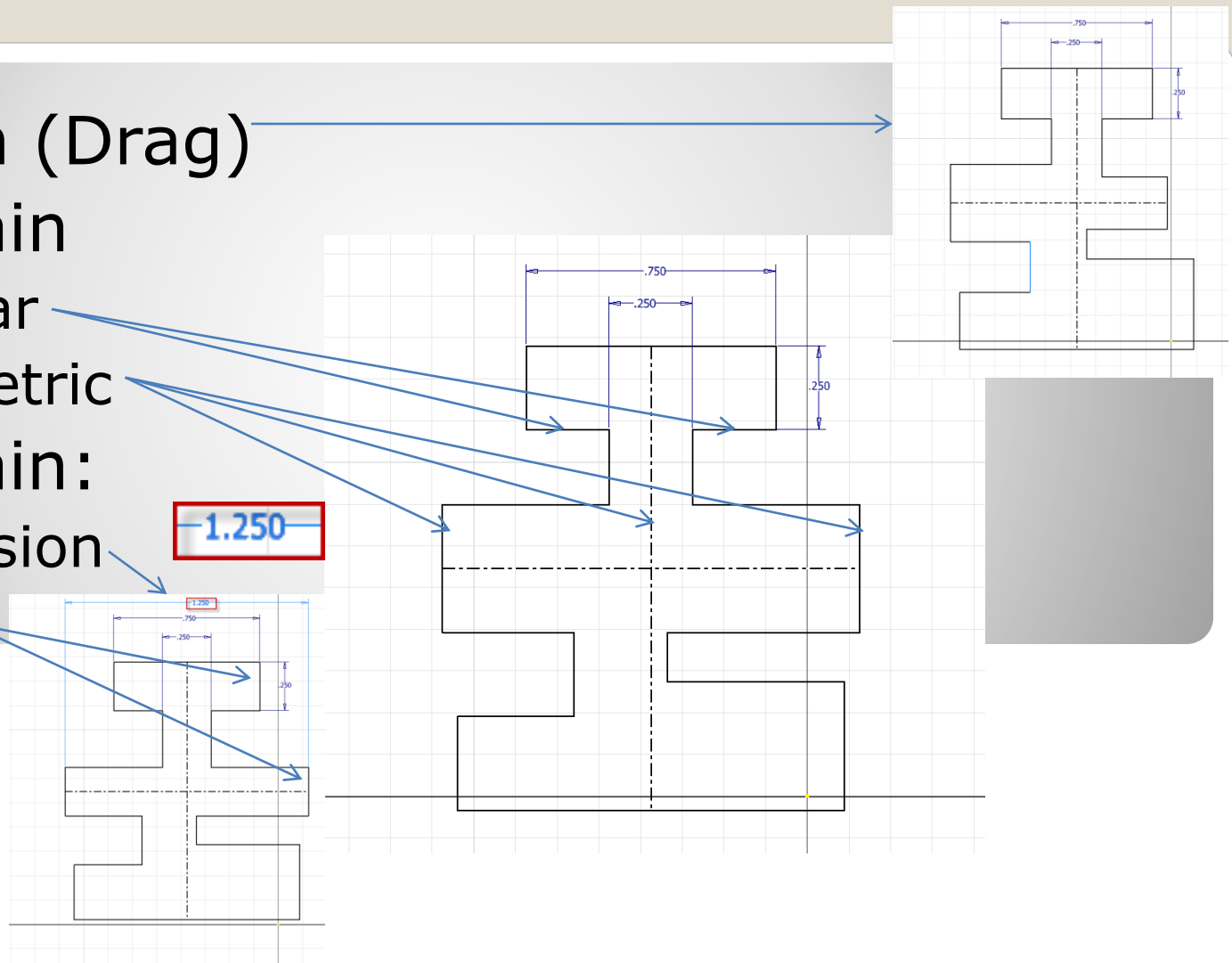• Results:

j. Constrain | Dimension

- Position (Drag)
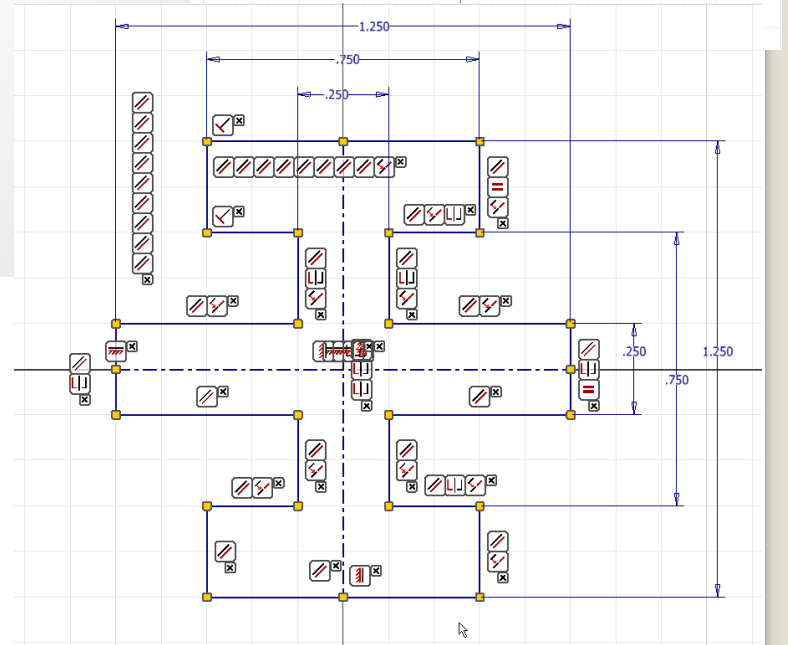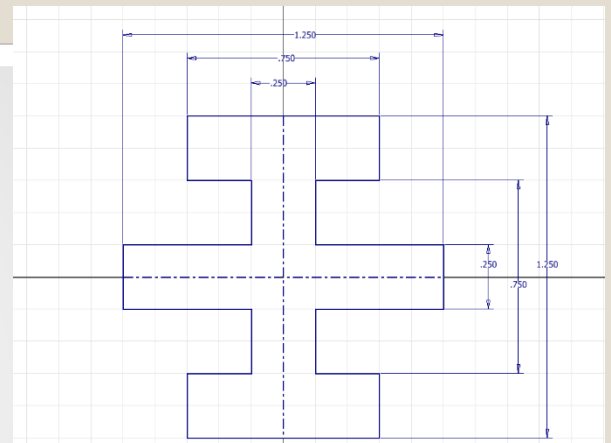- Constrain
  - Colinear
  - Symmetric
- Constrain:
  - Dimension
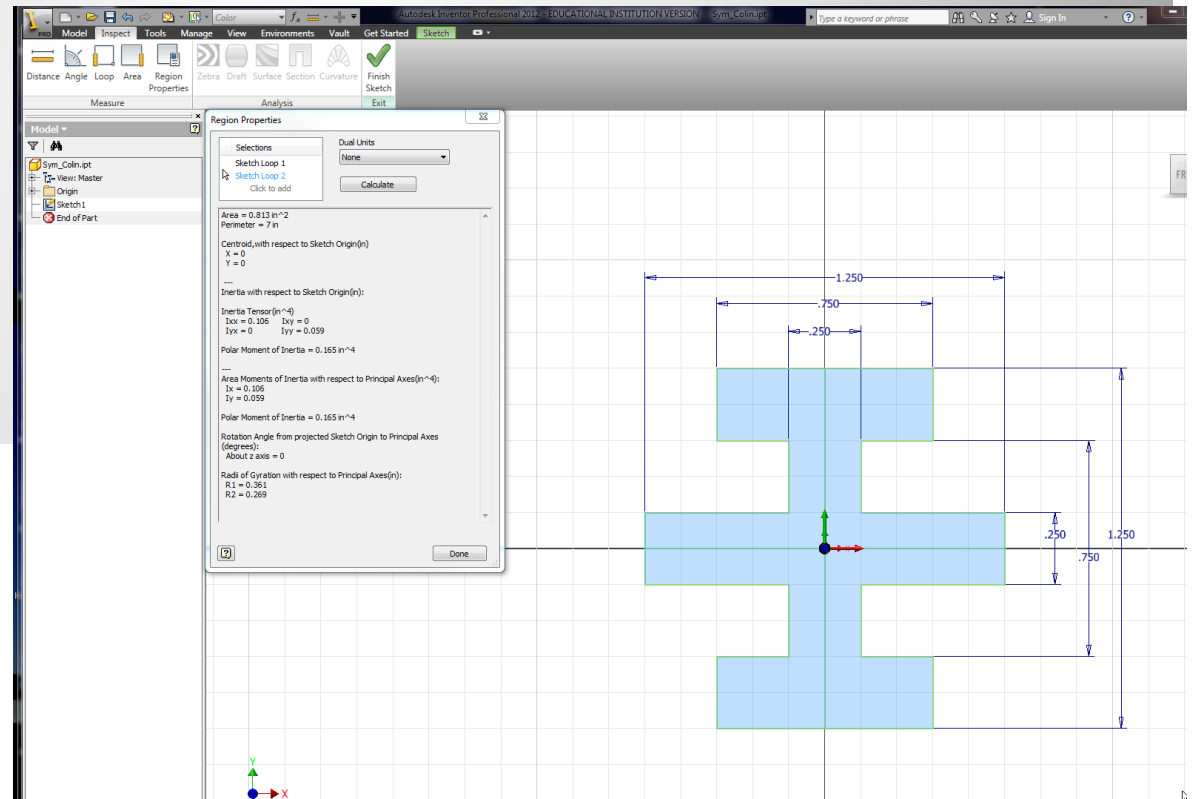 - Equal

1.250

k. Continue

- Position (Drag)
- Constrain
  - Colinear
  - Symmetric
  - Dimension
  - Equal
  - Horizontal (points)
  - Vertical (points)
- Verify
  - Constraints
  - Degrees of Freedom

I. Finish

Pick:
- ☑ Region Properties
- ☑ The region:

Results:

m. region properties