Autodesk Inventor Tutorials

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- This is a set of Tutorials that cover Basic use of the Software
 - Level I: The most basic of features needed to do modeling and drawing of parts and assemblies. Also includes some things that I wish I had learned the first time I worked with the software.
 - Level II: Additional details, good to understand prior to doing advanced work
- The material presented here is my notes on the related subject.
 - It is subject to change
 - o It is not intended to be fully polished material
 - Utilizes basic shapes / widgets
 - o Emphasis is on understanding the software, not complicated geometry
- I put this material together to help students that want additional practice from tutorials.
- This material helps the students focus on what I think are the important fundamentals relating to:
 - o Parts: Modeling and Drawing
 - o Assemblies: Modeling and Drawing
 - o Presentations: Exploded views and animations.

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Level I – Intro

1. Setup (Quick Reference)

Key Topics: Project folders and settings, Screen Layout, Additional Information

2. Modeling - Part Models (Chronicle)

Key Topics: Templates (Units, Standards), Application Options, Viewing tools, Model Feature – Extrude (Join and Cut), Sketches – Dimensions and Constraints (Horizontal, Vertical, Tangent)

3. Modeling - Assembly Models (Chronicle)

Key Topics: Templates, Base Component (Ground, Re-orient) Components (Placing, Free move and Rotate, Constraints (Applied to Faces and Edges)

4. Modeling - Presentation Models (Chronicle)

Key Topics: Templates, Creating Views, Tweaks, Animation

5. Drawing - Borders and Titleblocks

Key Topics: Templates, Formats, Borders, Titleblocks, Sheets, iProperties

6. Drawing - Part Drawings (Chronicle)

Key Topics: Templates, Base View, Projected Views (including Isometric), Views (Editing, Moving, and Deleting), Lines (Hidden and Tangent Edges), Annotation (Centers and Dimensions), Edit dimension text, Edit the Default standard (Line Scale)

7. Drawing - Assembly Drawings (Chronicle)

Key Topics: Views – Assembled Orthographic and Exploded Isometric, View Editing and moving, Adjusting Hidden line and tangent edge visibility, Center lines and marks, editing the default standard (Line Scale), Parts List and Balloons

Level II – Additional Details

- 1. Modeling:
 - a. Part Models (including geometric analysis)
 - i. Sketch Details Part 1: (Chronicle)
 - Coincident, Horizontal, Vertical
 - Parallel, Perpendicular, Equal
 - ii. Sketch Details Part 2: (Chronicle)
 - Concentric, Tangent
 - Symmetric, Co-linear
 - iii. Additional features / options (Chronicles: Part I, Part II)
 - b. Assembly Models (Chronicle)
 - c. Presentation Modeling II Part II (Chronicle) | Part III: (Chronicle)
- 2. Drawing
 - a. Setup II: <u>Drawing</u> <u>Templates, Logos</u>

Additional Examples / Applications

- 1. Standard Part Drawings / views
 - a. Other Views (Section, Auxiliary, Detail) (Chronicle)
 - b. Dimensioned Views (Chronicles: Centers, Part I, Part II)
- 2. Standard Features and Weldments (In development)
 - a. Assembly Model
 - b. Presentation Modeling
- 3. Top Down Design Parts in Assemblies: Notes (Links to chronicles in the notes)