

ME 1403 Engineering Practice & Graphics
Spring 2018

Lecture 1 (A)

Instructor:
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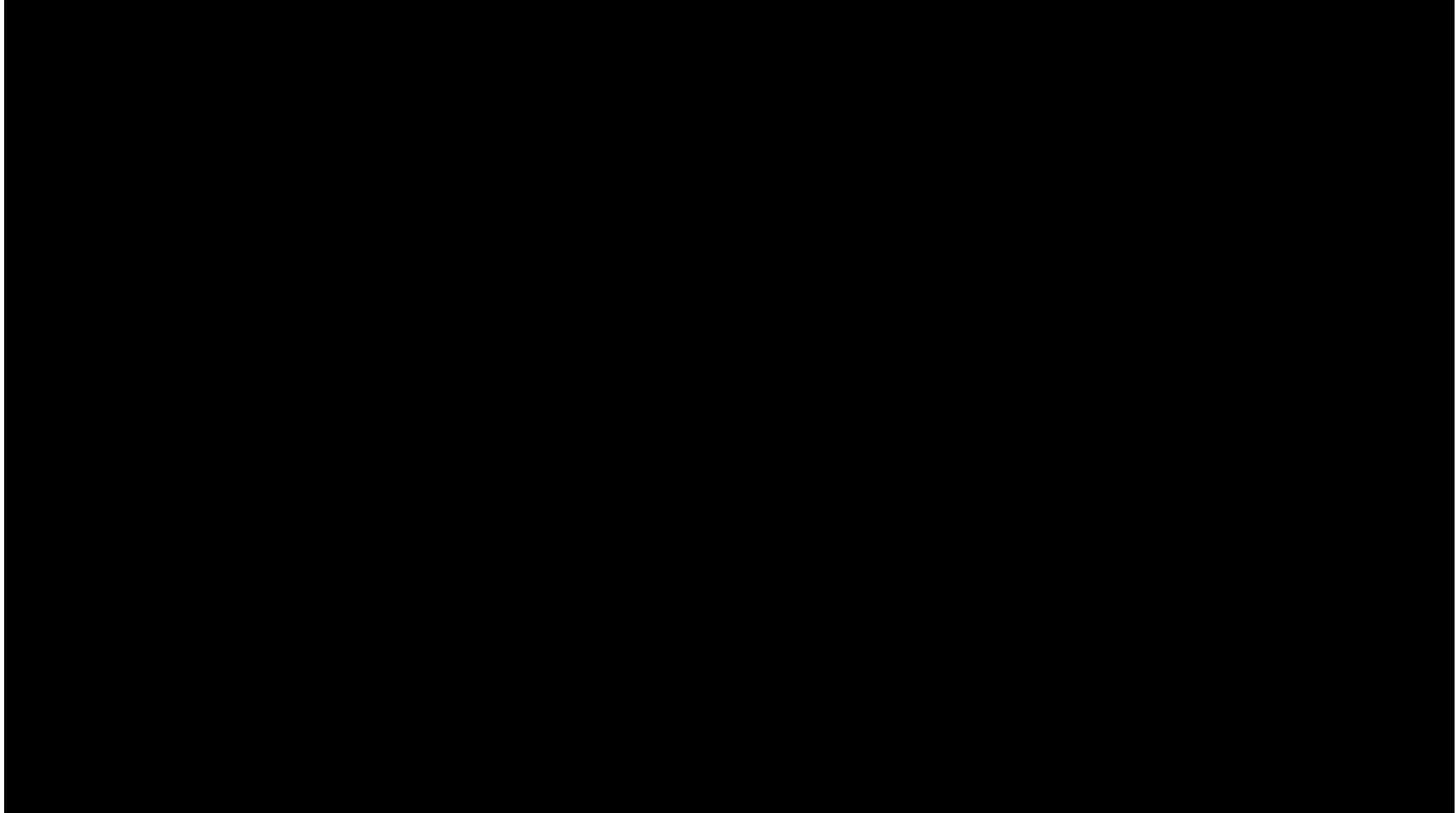
Outline

- Engineering CAD Software's
- What is Solidworks?
- Text Book
- Rules and Regulations
- Environment
 - Opening Solidworks
 - Introduction to Solidworks Environment
- What kind of Document?
 - Part
 - Assembly
 - Drawing
- Setting up Units and Dimension Standard
 - Drawing Standard (**ISO/ANSI**)
 - Unit System (**MKS/MMGS**)
- Mouse Gestures
- Sketching
 - Plane

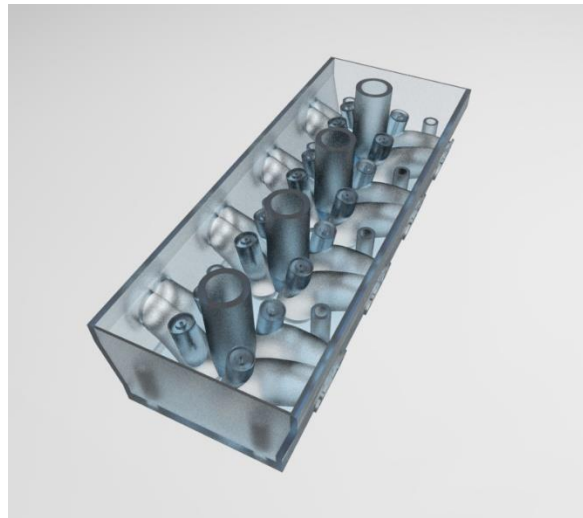
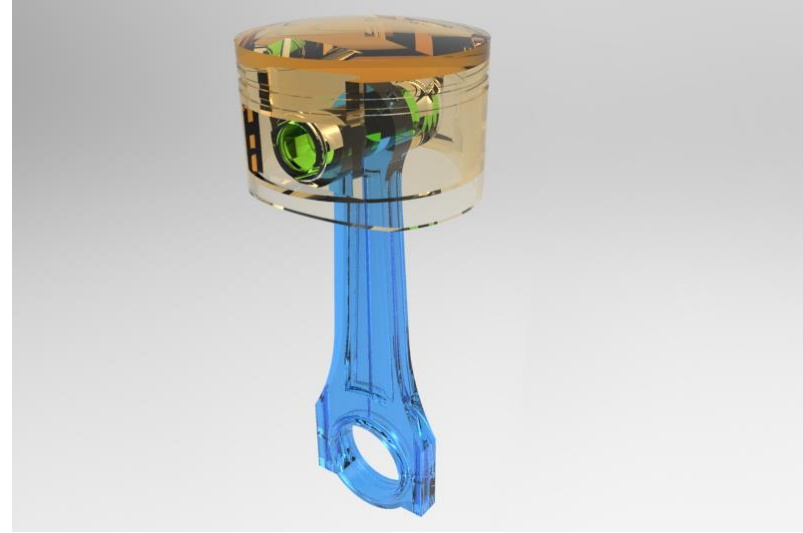
Engineering CAD Software's

- Top End Market
 - a. CATIA by Dassault Systems
 - b. NX by Siemens PLM
- Mid level Market
 - a. **SolidWork** by Dassault Systems
 - b. SolidEdge by Siemens PLM
 - c. **Inventor** by Autodesk
 - d. PTC Creo (Pro-E) by PTC
 - e. Rhino
 - d. IronCAD
- Entry Level Market
 - a. **AutoCAD**
 - b. Google Sketchup Pro
 - c. DraftSight
 - d. SpaceClaim
 - e. Alibre
 - f. FreeCAD

What is Solidworks?



Samples



Recommended Textbook

S. Tickoo, ***SolidWorks 2016 for Designers***, 14th ed., 2016, CAD/CIM Technologies, ISBN: 978-1-942689-18-8.

or

S. Tickoo, ***SolidWorks 2017 for Designers***, 15th ed., 2017, CAD/CIM Technologies, ISBN: 978-1-942689-75-1.

Lectures will be available at the following link

http://www.shafnehal.com/ME1403/spring_2018/lecture_notes

Submission Rules

- Homework's are due **at the beginning of the first lab** of the following week (*More Discussion on next class*).
- Quiz's will be taken (*More Discussion on later classes*).
- Submit everything via **Blackboard**.
- Copying your assignments are **prohibited**. If you do so, you and the individual you copied from will receive a **grade zero**, plus both of you will be referred for actions as described in the university's policy for academic dishonesty. ([Read Section 203 of the Student Code of Conduct 2013-2013 UTSA Information Bulletin.](#))

Submission Rules

- Any submission after deadline will not be accepted and thus will receive a grade of zero.
- Grading Criteria for Late Submission:
 - Submission on Time : 100%
 - Submission a week late : 75%
 - Submission two week late : 0%

Submission Rules

- Naming Convention for your submission files:
 - *(section)_(your myUTSA id)_(Number/Name of the HomeWork)*
- For Example if your in section, “**L1**”, your myUTSA id is, “**abc123**” and You are submitting, “**HW1**”. Then your submission file name should be, “**L1_abc123_HW1**”

Emailing Regarding Problems

- Email either
 - through **Blackboard**
 - or at shafnehal@gmail.com
- Email between: 8:00 A.M. to 5:00 P.M.
- Subject line should follow the below mentioned convention:
[ME 1403: Engineering Practice & Graphics Spring - 2018]_(Your myUTSA ID)_(Summery of your Issue)
- For Example if your myUTSA id is “**abc123**” and You are emailing regarding problem in “**HW1**”. Then your email subject line should be:
“[ME 1403: Engineering Practice & Graphics Spring - 2018]_abc123_HW1 problem”
- Any email that doesn't follow the above convention will not be responded.

Most Important Rule of the Class

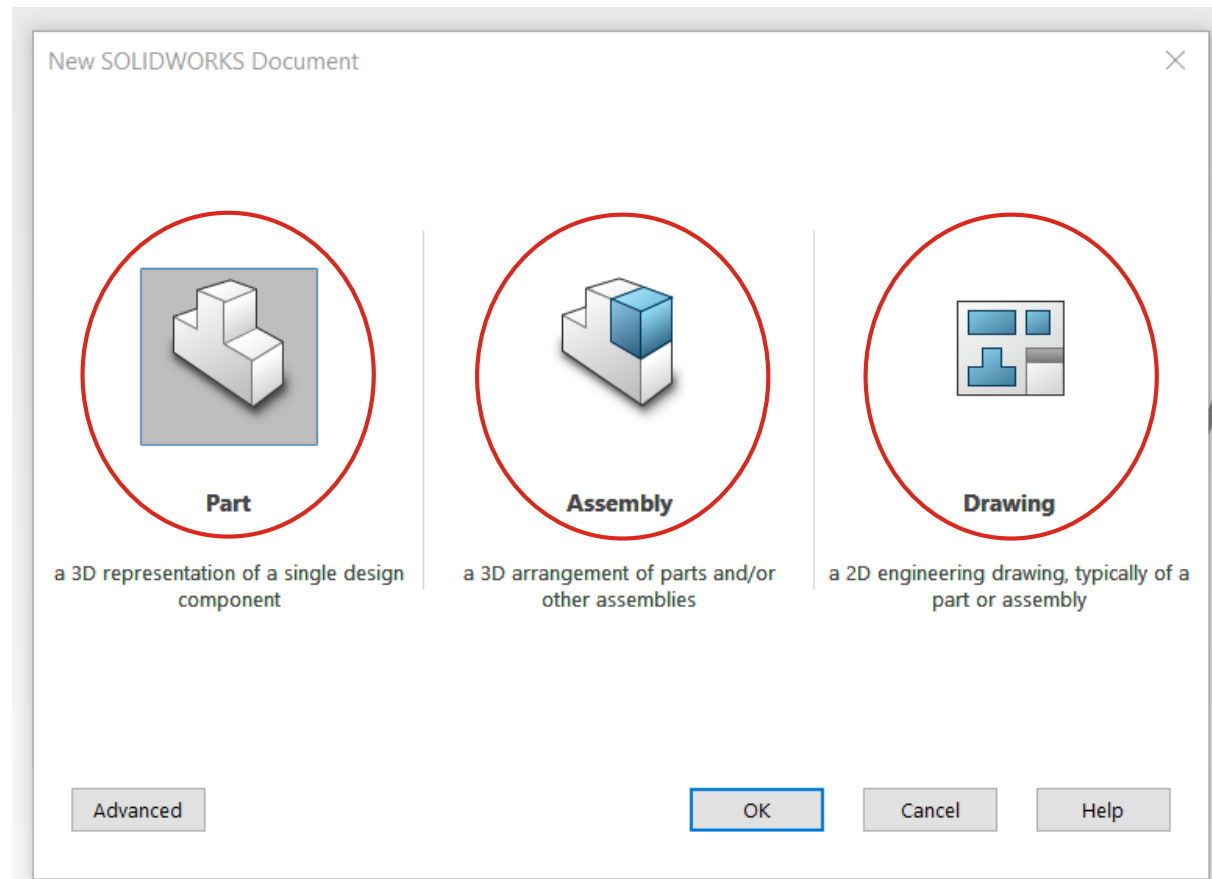
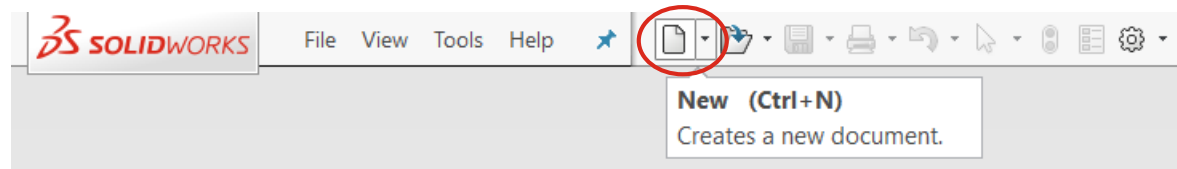
“Ask Questions!”

Solidworks

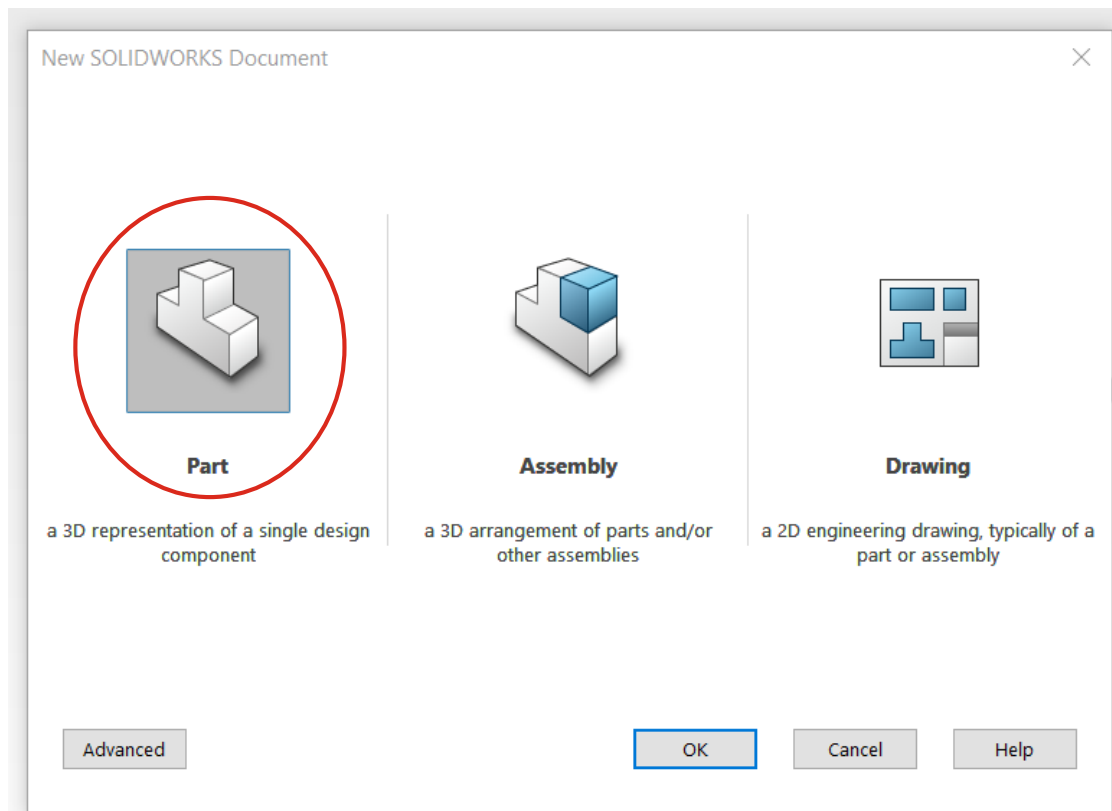
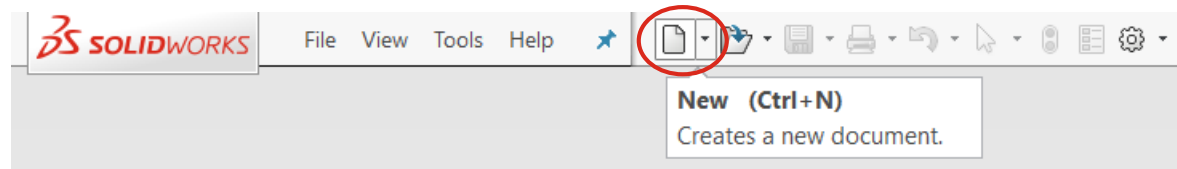
- You can get access to Solidworks via-
 - Lab Computers
 - myUTSA apps
 - Follow this [pdf file](#).



Creating New Documents

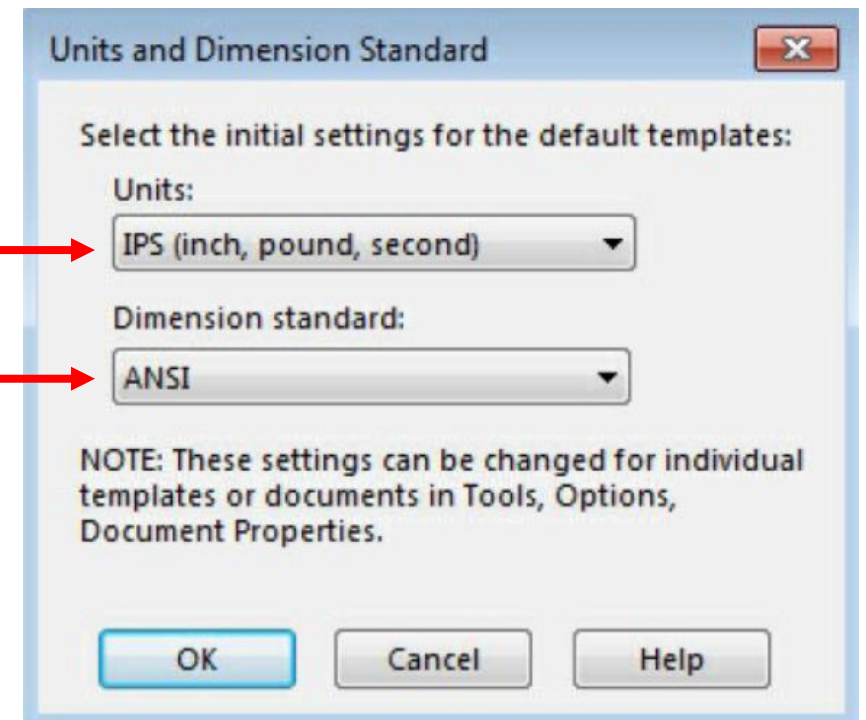


Setting up Units and Dimension Standard

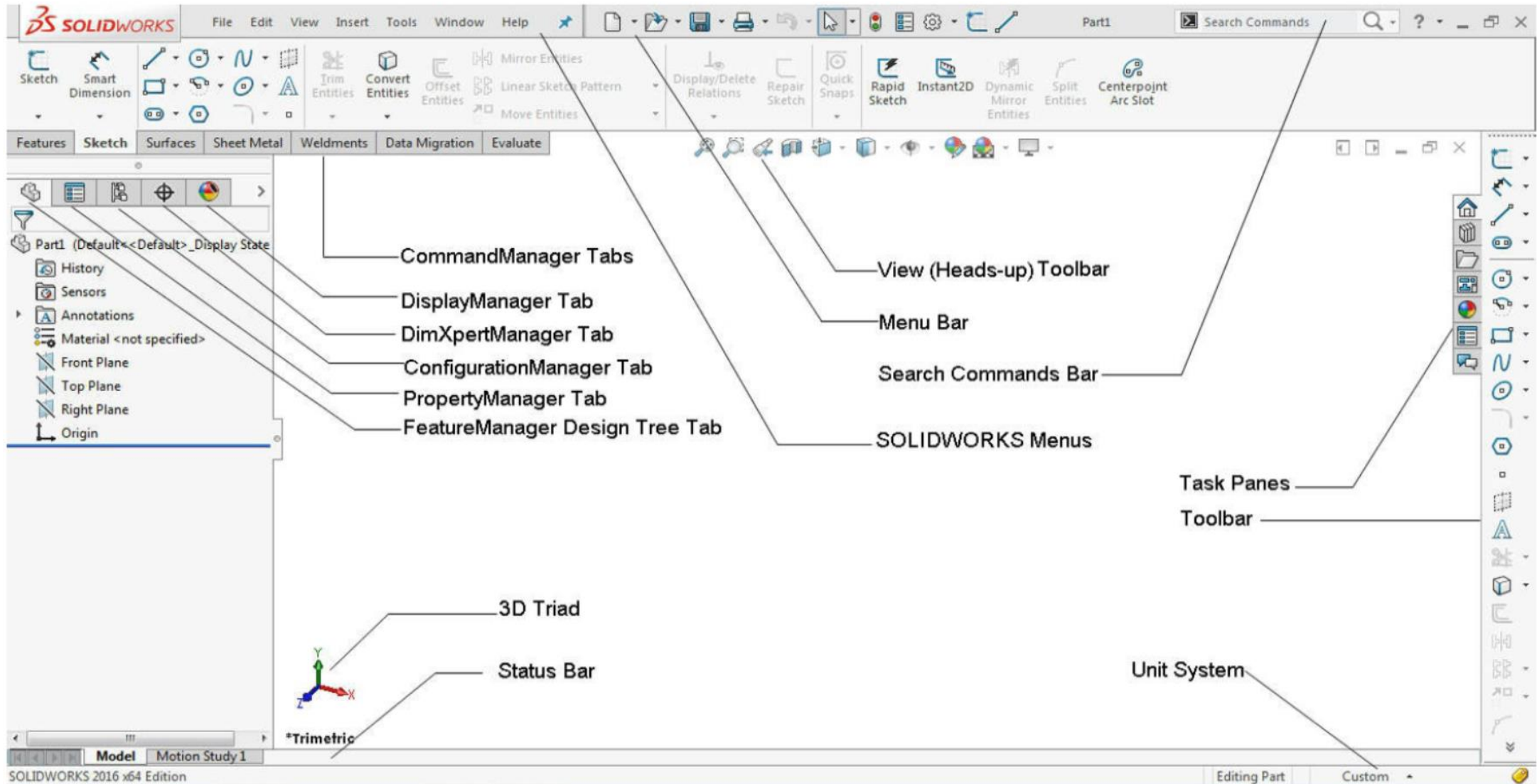


MMGS

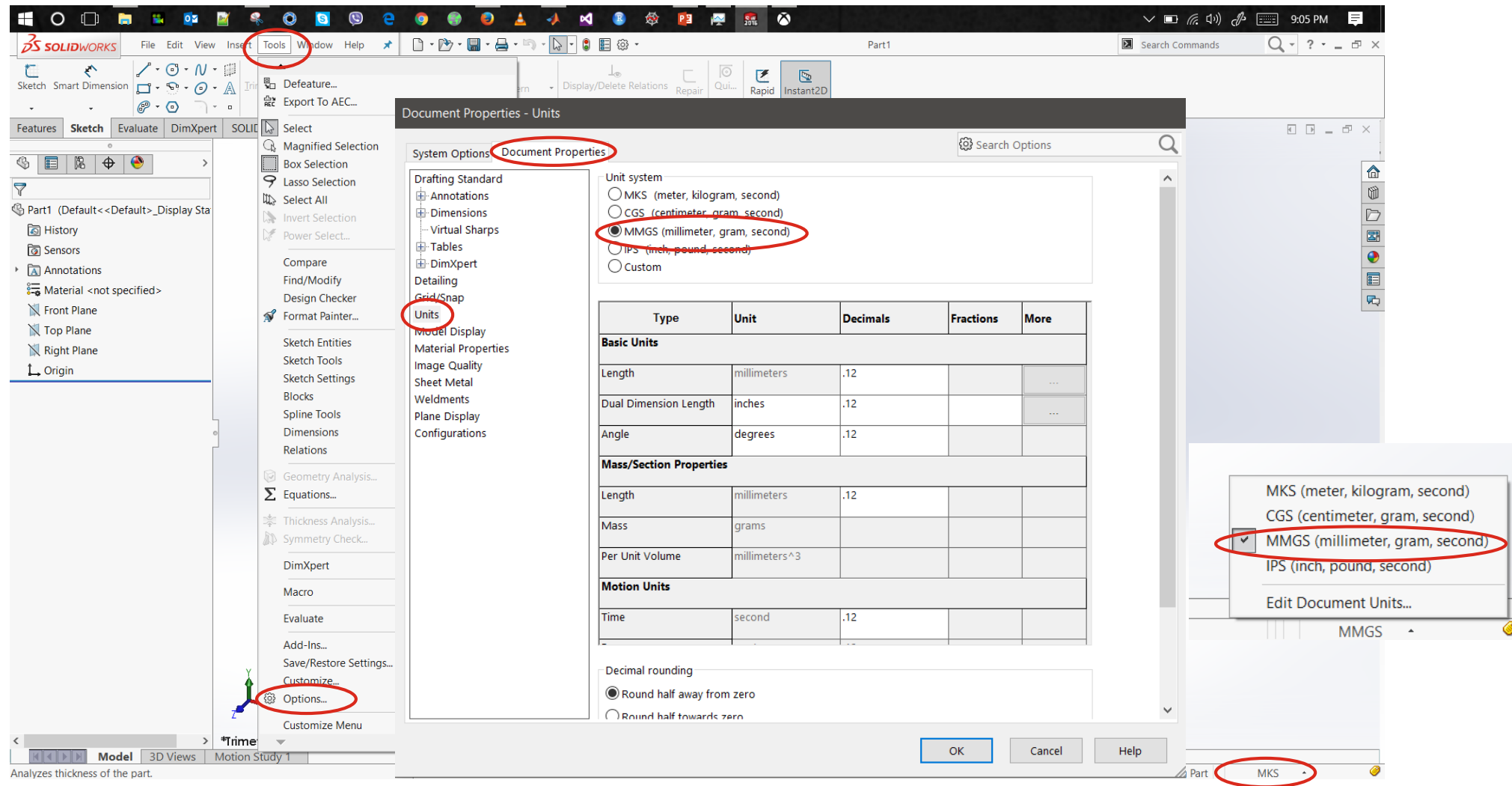
ISO



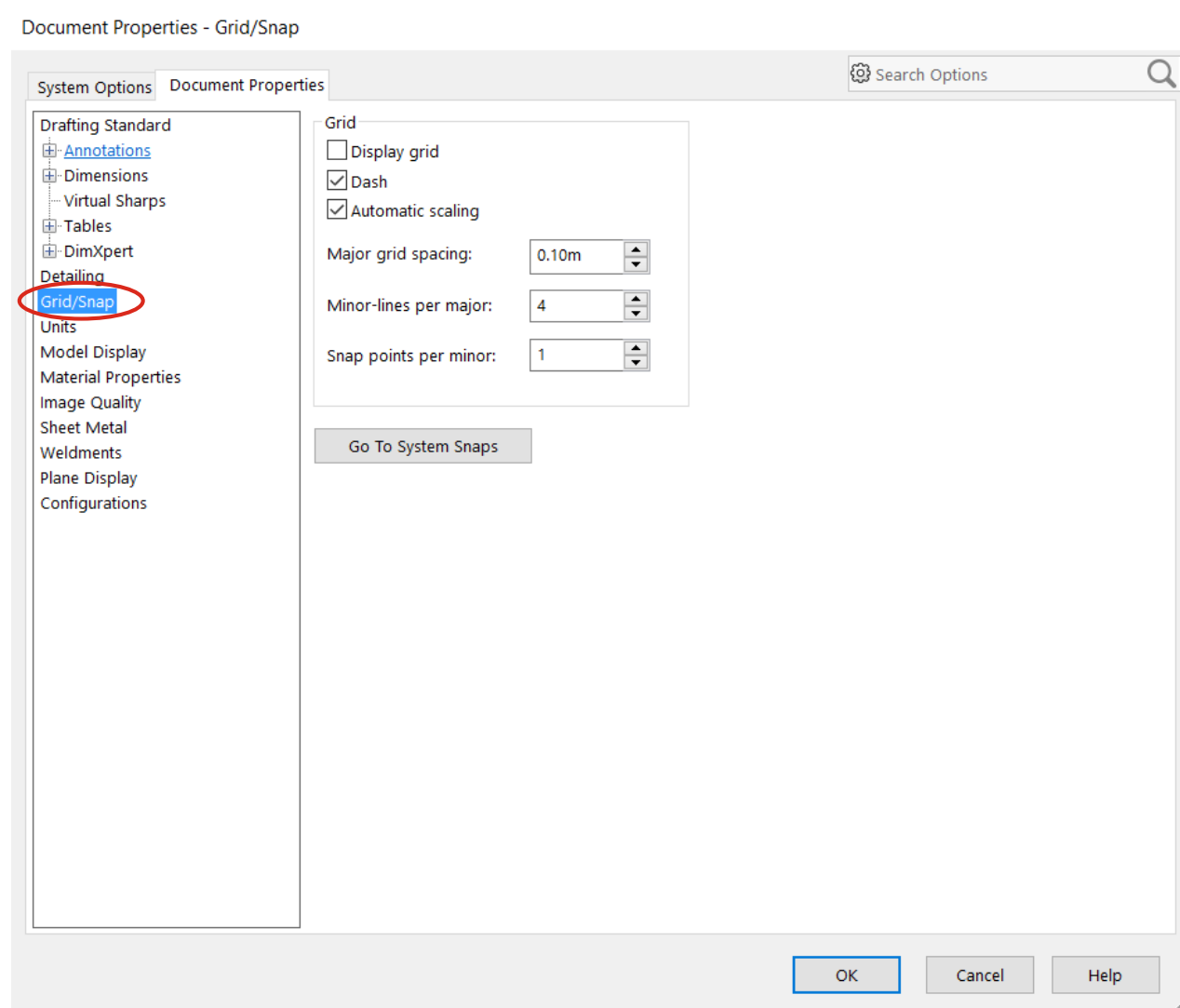
Introduction to Solidworks Environment



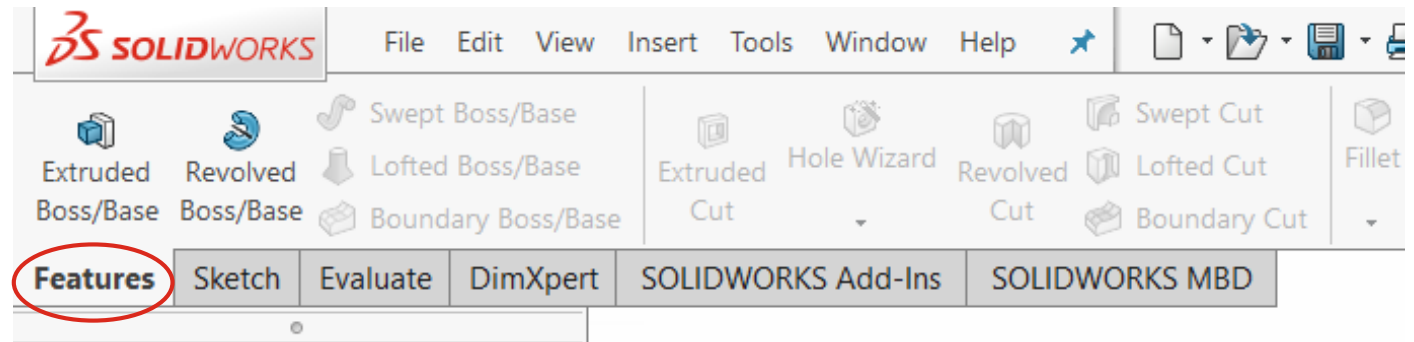
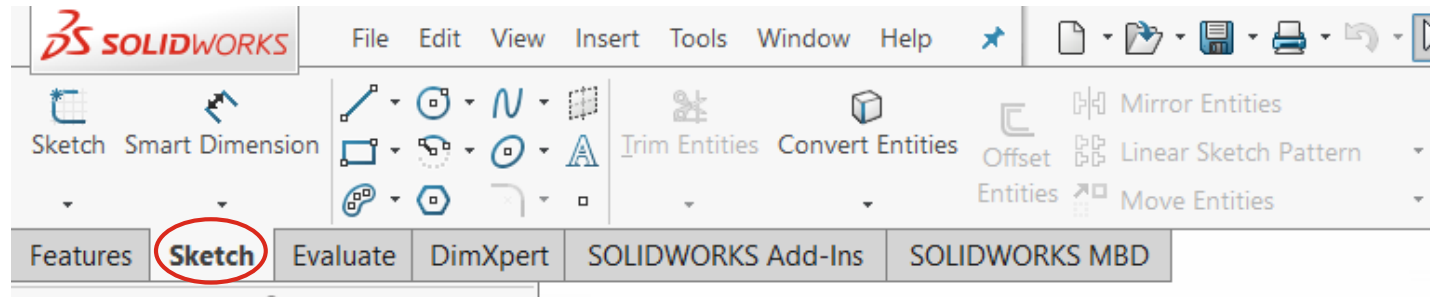
Setting up Units and Dimension Standard (cont'd)



Snap & Grid Setting

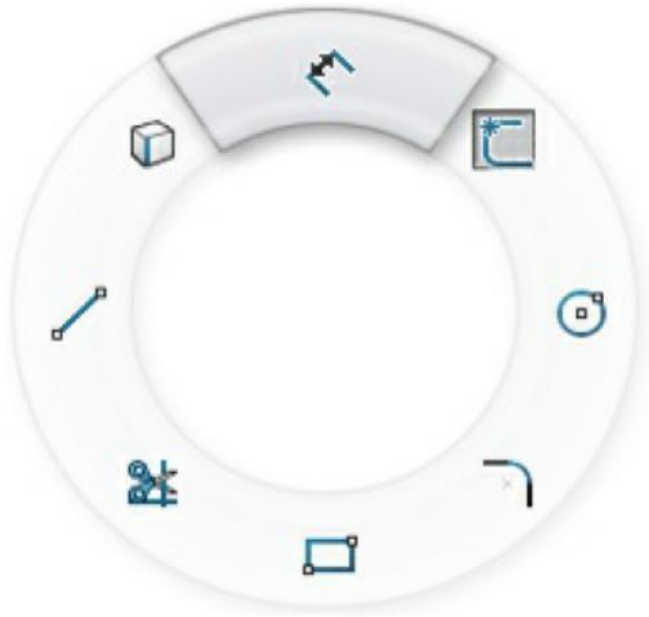


User Tabs/Pans

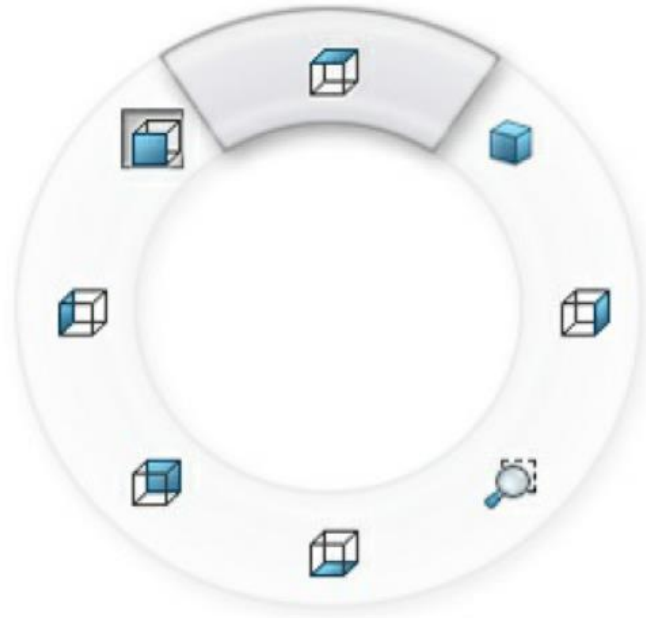


Mouse Gestures

- Press the Right Mouse Button
- Drag the Cursor in any Direction



Sketching

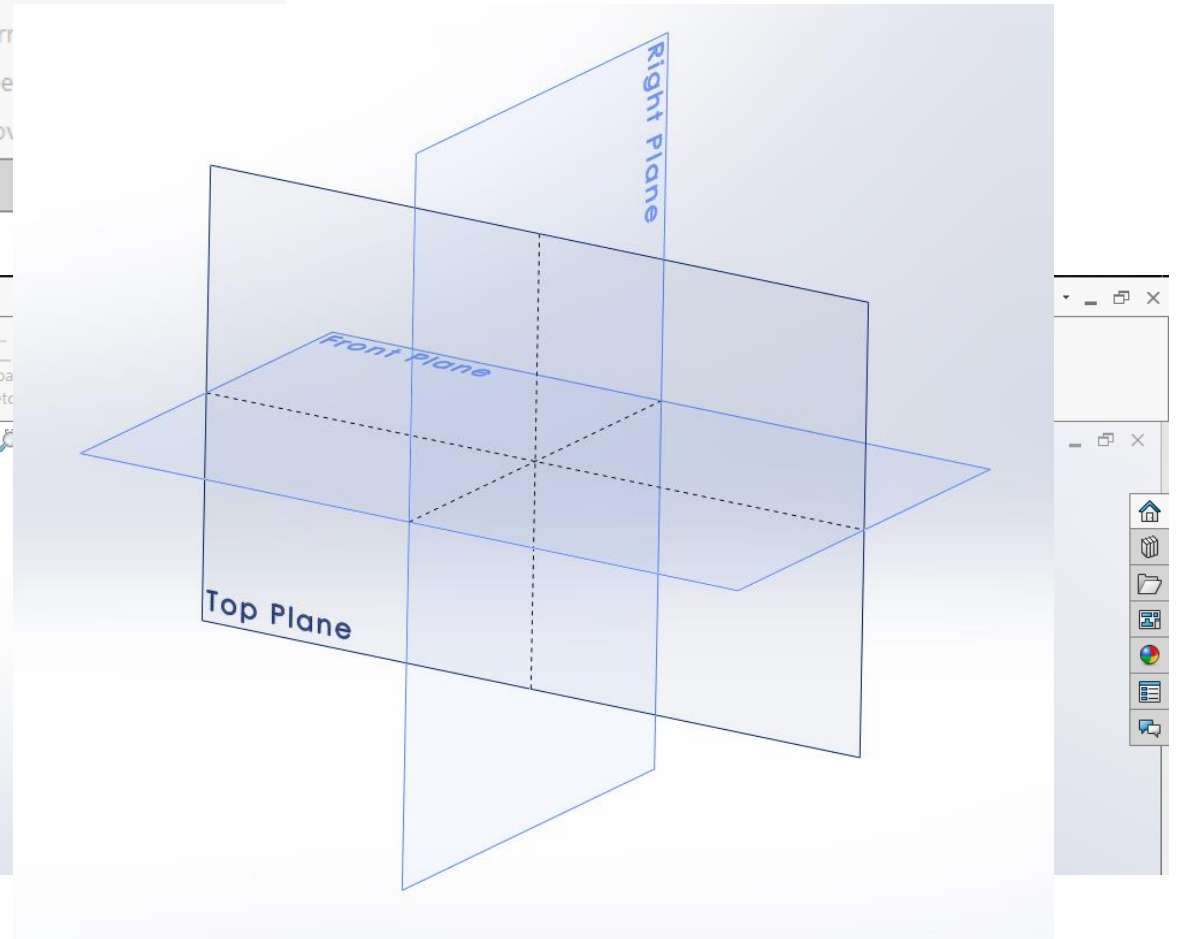
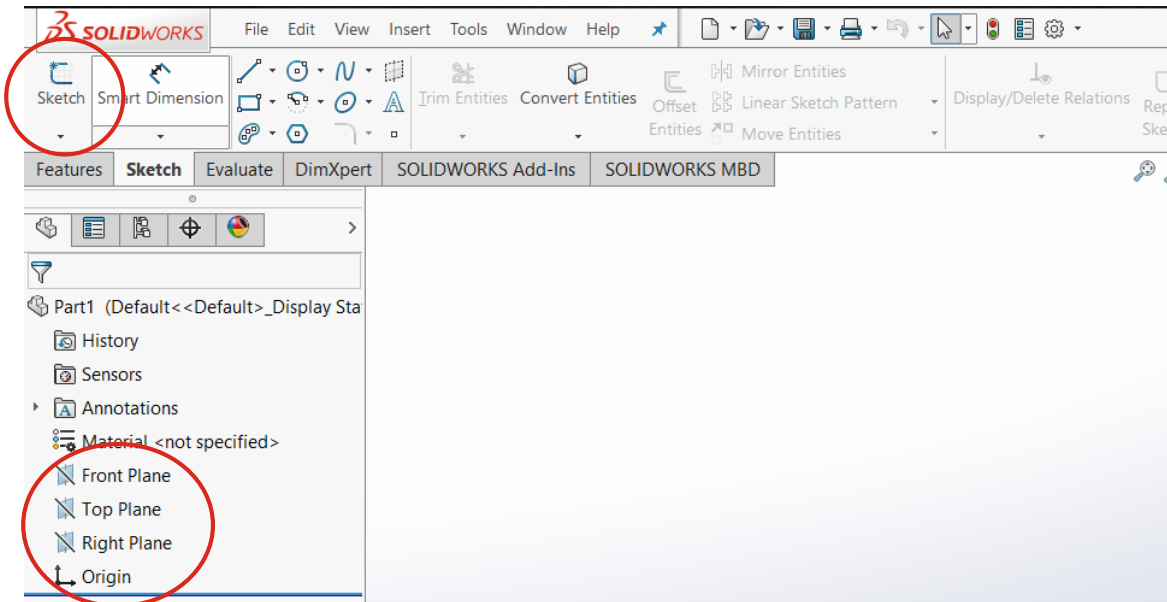
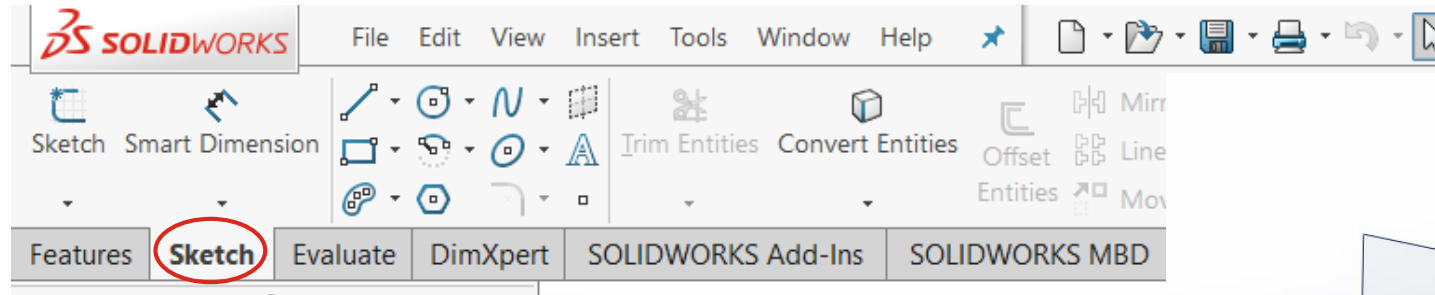


Part



Drawing

Sketching



Practice

- We will do some practices on Next Lecture!