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Technical Computer Design – 3D (HON) TE323

Mr. Kolkmeier



TE323 Technical Computer Design–3D (HON)

Course Information:

1. Technology/Business
 2. Semester ½ credit
 3. HON Grades 11,12
 4. Pre-requisite: Technical Computer Design (TE221) or CADD 1 (from 2014-15)
 5. Prerequisite: Student has passed TE221 75-80%
- ✓ For more information about the course stop by ITC 1 before or after school.



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TE323 Technical Computer Design–3D

- Pre-requisite: **Technical Computer Design (TE221)** or **CADD 1** (from 2014-15)
- Ideal for Students interested in Engineering Design.
- Course will concentrate on 3D design using **SOLID EDGE** (the **SOLID EDGE** software from Siemens PLM)
- Students will work in the following design areas:
 - Sectional view design, Auxiliary view design, Fastener / Threads
 - Engineering design: ISO / ANSI part design



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TE323 Technical Computer Design

Academic Requirements:

1. The amount of work a student has is based on how many drawing problems completed to a high skill level. (detail)
2. Students will have Book terminology test.
3. Students will have Drawing Skill test.
4. Classroom attendance is very important. Many class assignments must be completed during class. Work must be turn in with a week of due date.
5. Amount of time expected per week for the student in this course to be successful : Never miss class and about 3 hours outside the classroom per week studying for test or finishing drawing problems.



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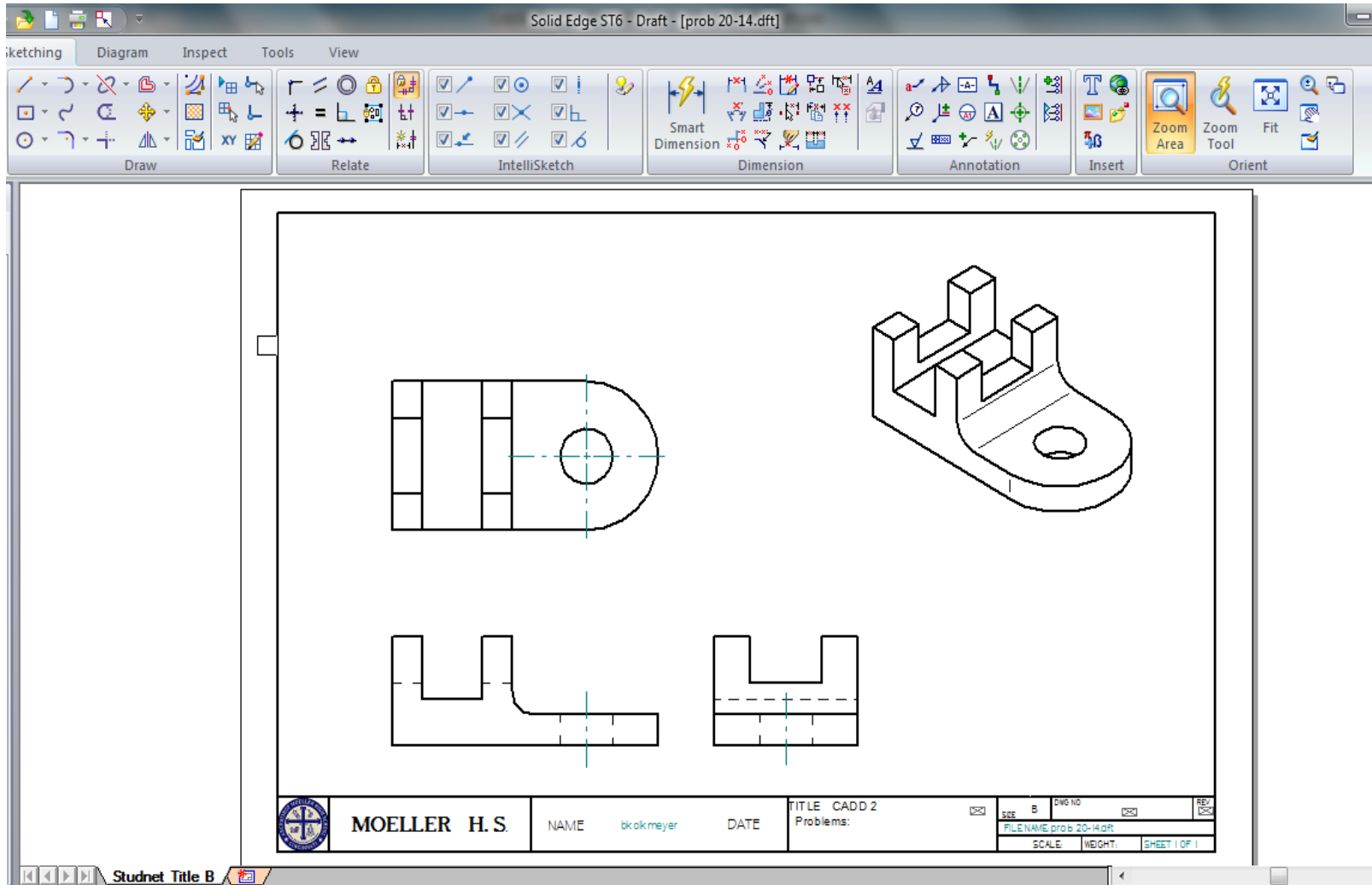
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- All Pre-Engineering student should take this course.
- Students will develop strong 3D design skills.
- Watch these Videos:
- <https://www.youtube.com/watch?v=oWLrrLkEge4>
- <https://www.youtube.com/watch?v=c1MRuPXrZY0>
- Cool
- <https://www.youtube.com/watch?v=ocqceS7Klze>



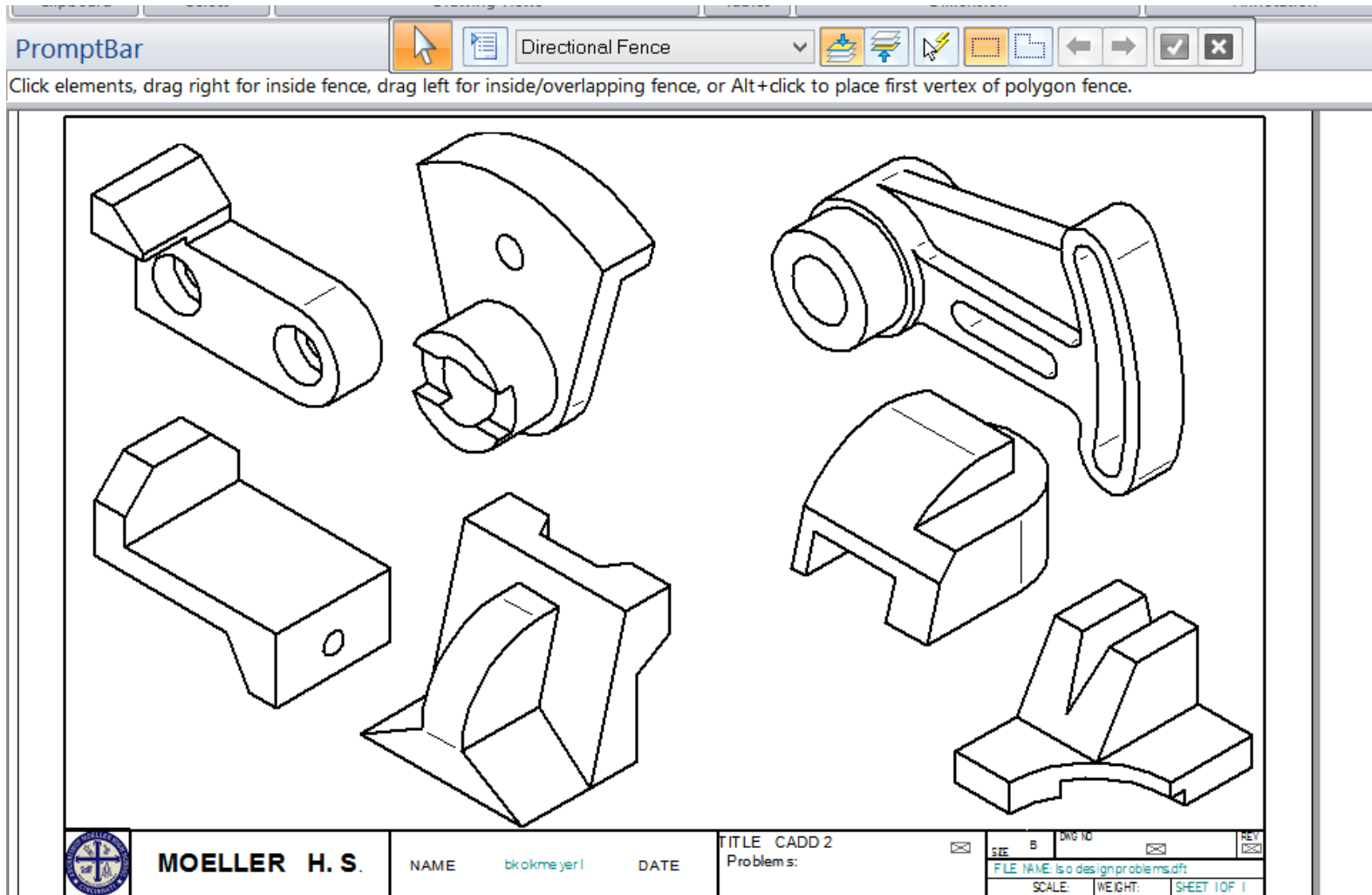
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Multi-view design using solid edge



Engineering design: ISO / ANSI part design

Solid Edge



Part view Sectional view design

Clipboard Select Drawing Views Tables Dimension Annota

PromptBar Directional Fence

Click elements, drag right for inside fence, drag left for inside/overlapping fence, or Alt+click to place first vertex of polygon fence.

SECTION A-A

DETAIL B

Archbishop MOELLER			
MOELLER HS			
TITLE			
DRAWN		CADD Drawings Brock Meyer1	
SIZE	DATE	01/07/15	REV
B			
FILE NAME: Pully section 10dft			
SCALE:	WEIGHT:	SHEET 3 OF 1	

Sheet1 B-Sheet CADD Title B Student CADD Title B

Part view Auxiliary view design

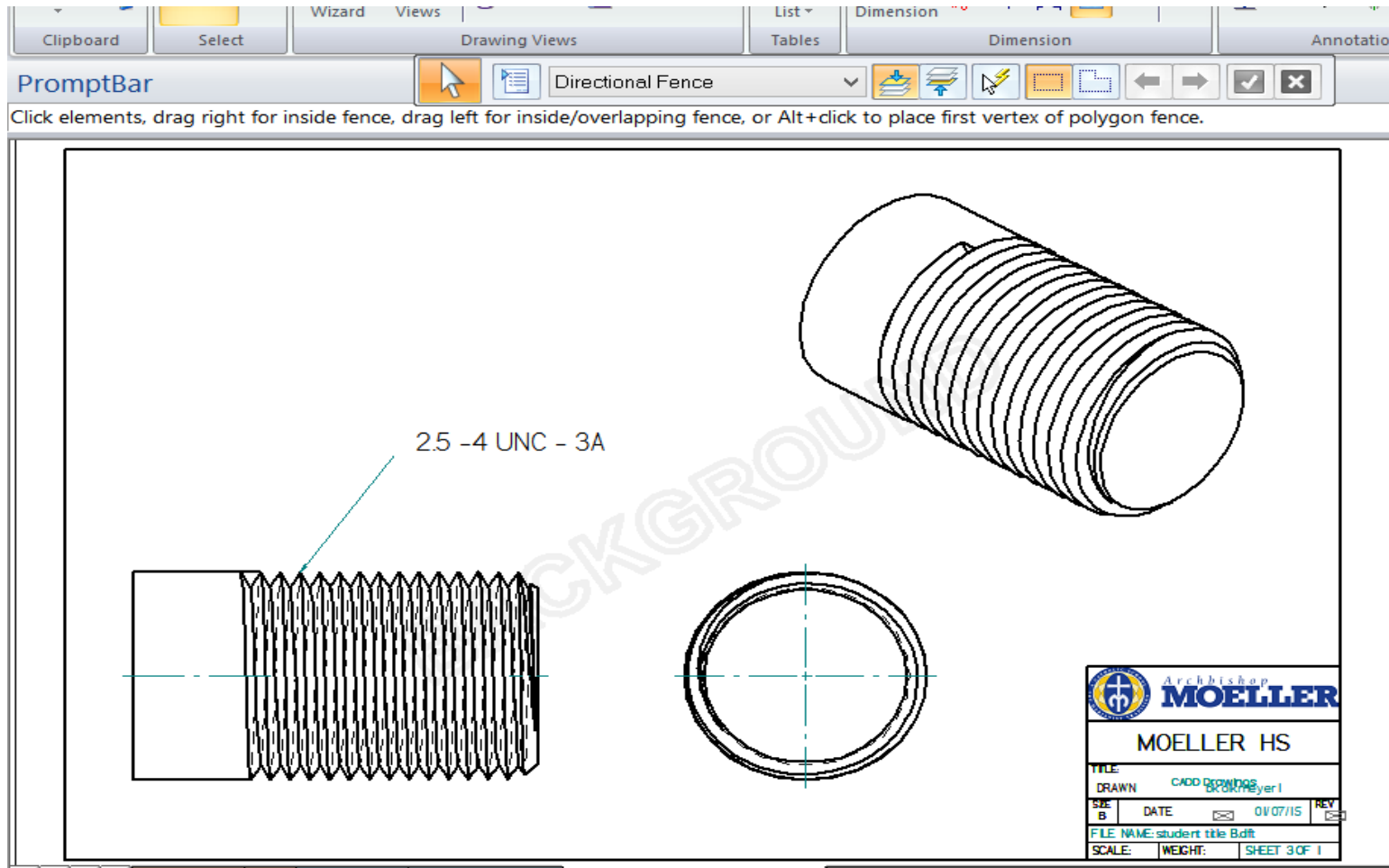
Clipboard Select Drawing Views Tables Dimension

PromptBar Directional Fence

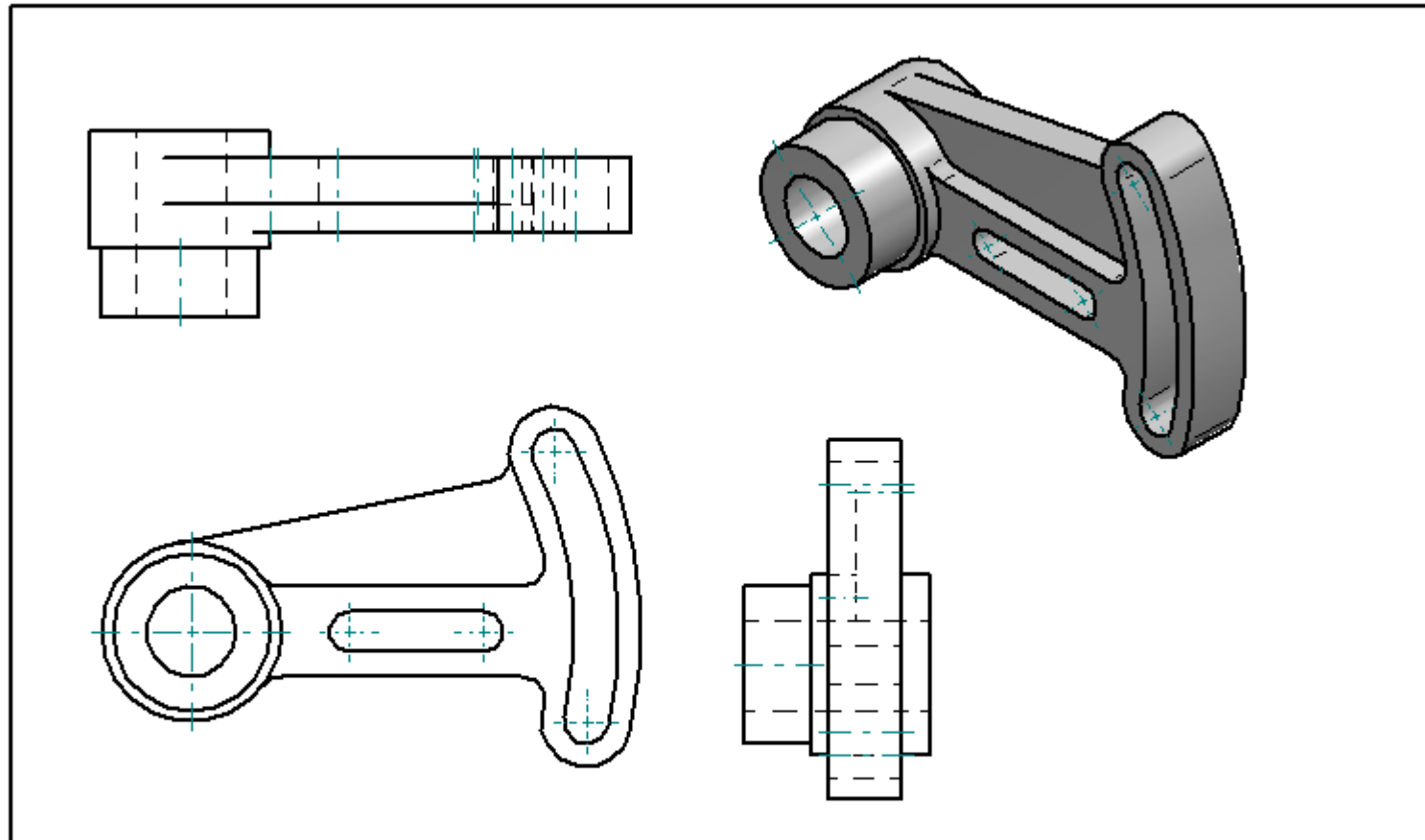
Click elements, drag right for inside fence, drag left for inside/overlapping fence, or Alt+click to place first vertex of polygon fence.

NAME: DATE:
MOELLER H.S.
TITLE: CAD 3 Single View Problems
SIZE: DWG NO: 5 REV: 1
FILE NAME: Aux Skill 4 2013.dwg
SCALE: WEIGHT: SHEET 1 OF 1

Part view design V-Sharp Thread Detail



SECTIONAL view to 3d PART VIEW



MOELLER H.S

NAME

bkokmeyer1

DATE

TITLE CADD 2

Problems:



SSE

B

DWG NO



REV

00

FILE NAME: 2 Adjustable arm.dft

SCALE

WEIGHT

SHEET 1 OF 1



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Technical Computer Design–3D 2 (HON) TE333

Mr. Kolkmeier



TE333 Technical Computer Design–3D 2 (HON)

Course Information:

1. Technology/Business
 2. Semester ½ credit
 3. HON Grades 11,12
 4. Pre-requisite: Technical Computer Design (TE221) or CADD 1 (from 2014-15)
 5. Prerequisite: Student has passed TE221 75-80%
- ✓ For more information about the course stop by ITC 1 before or after school.



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TE333 Technical Computer Design–3D 2 (HON)

1. Prerequisite: Technical Computer Design – 3D (TE323)
2. Course continues on part design with focus on assembly
3. Students will draw and design Cams and Gears.
4. Student projects will be to assemble model parts built on Moeller's MAKERBOT 2 3D printer.
5. Course will concentrate on 3D design using SOLID EDGE

VIDEO EXAMPLE:

<https://www.youtube.com/watch?v=aIldcFWyoYs>

https://www.youtube.com/watch?v=_VDfFkPHpxM

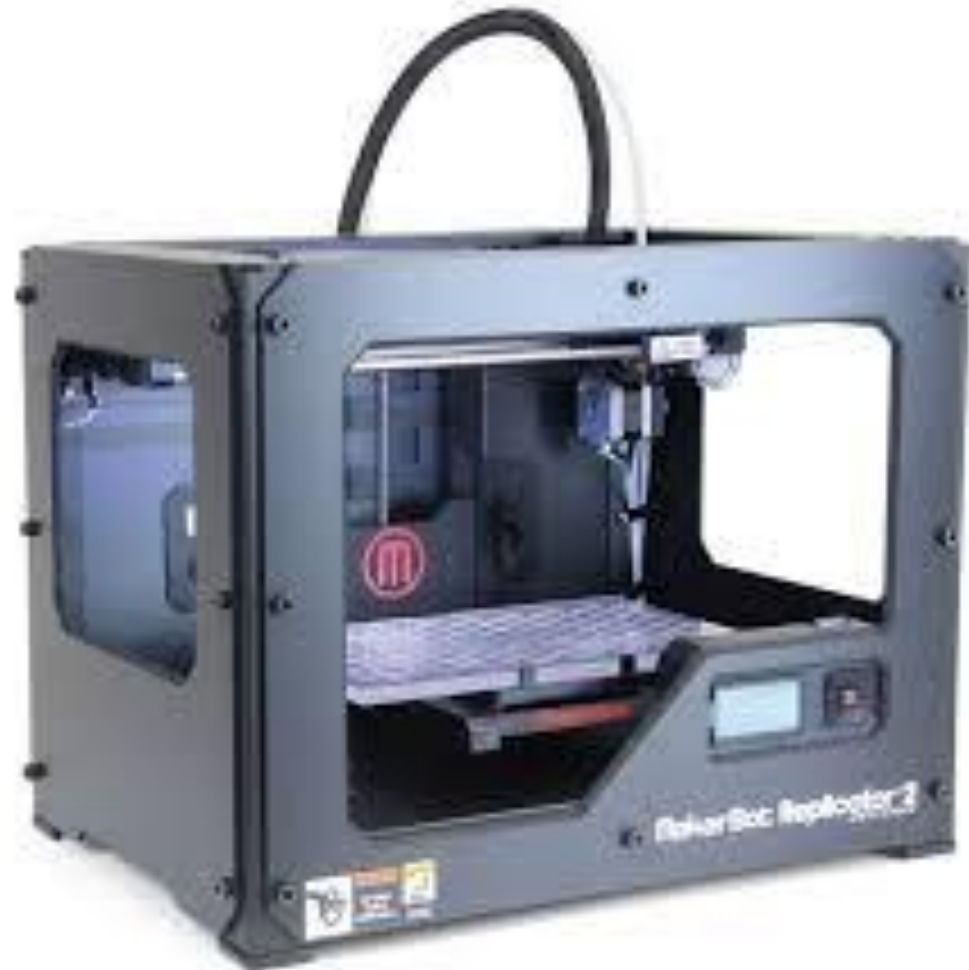
<https://www.youtube.com/watch?v=xcDQbD-tjoE>



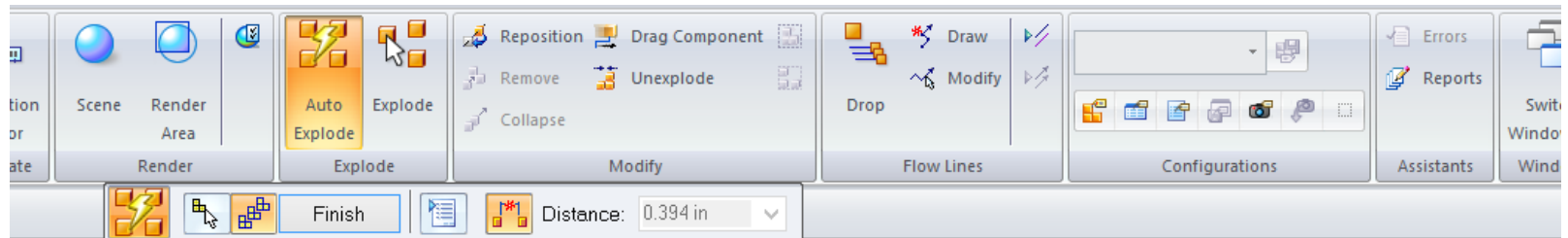
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3D Printer – Makerbot 2

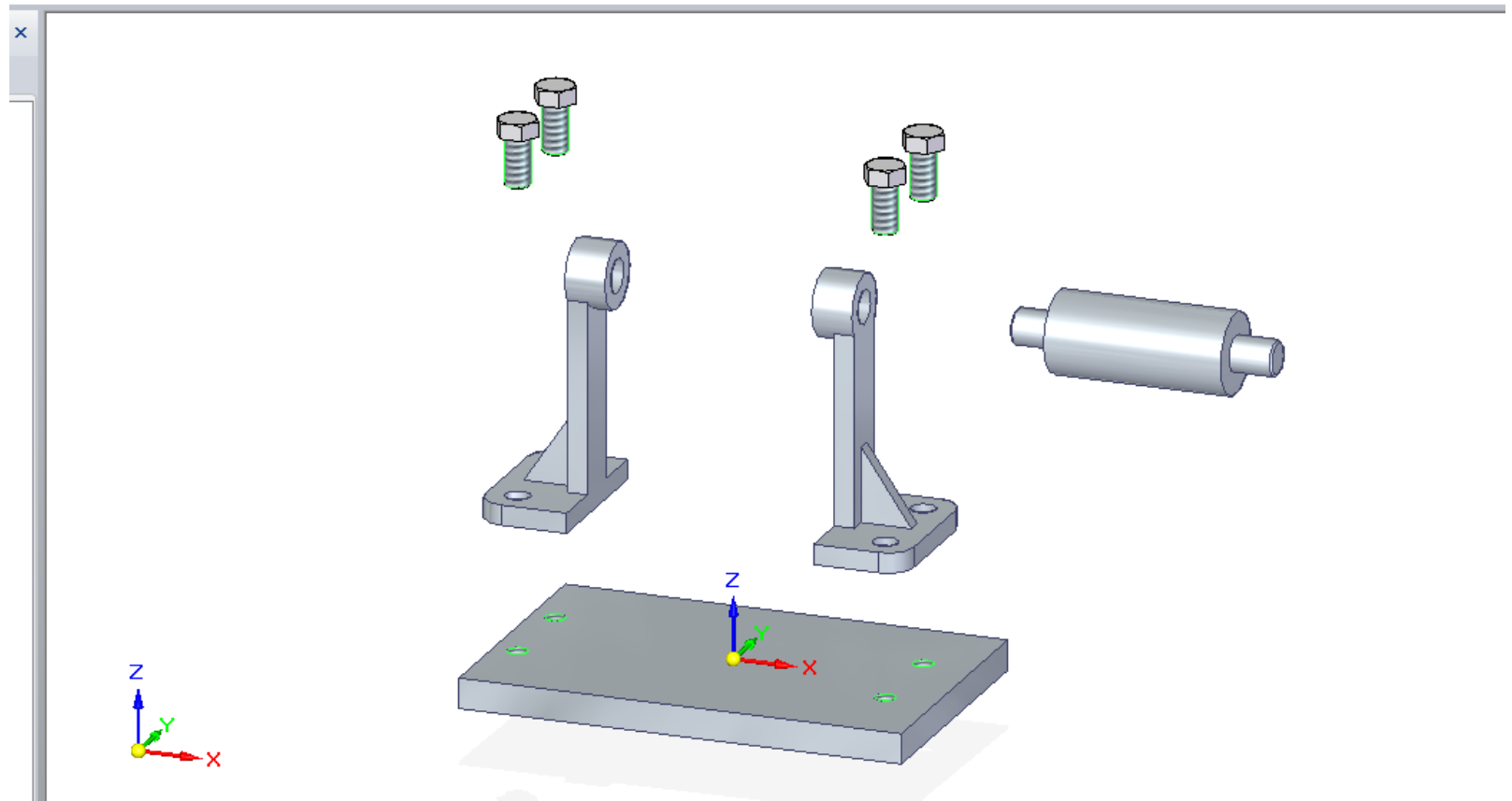
<https://www.youtube.com/watch?v=13hXothTtaU>



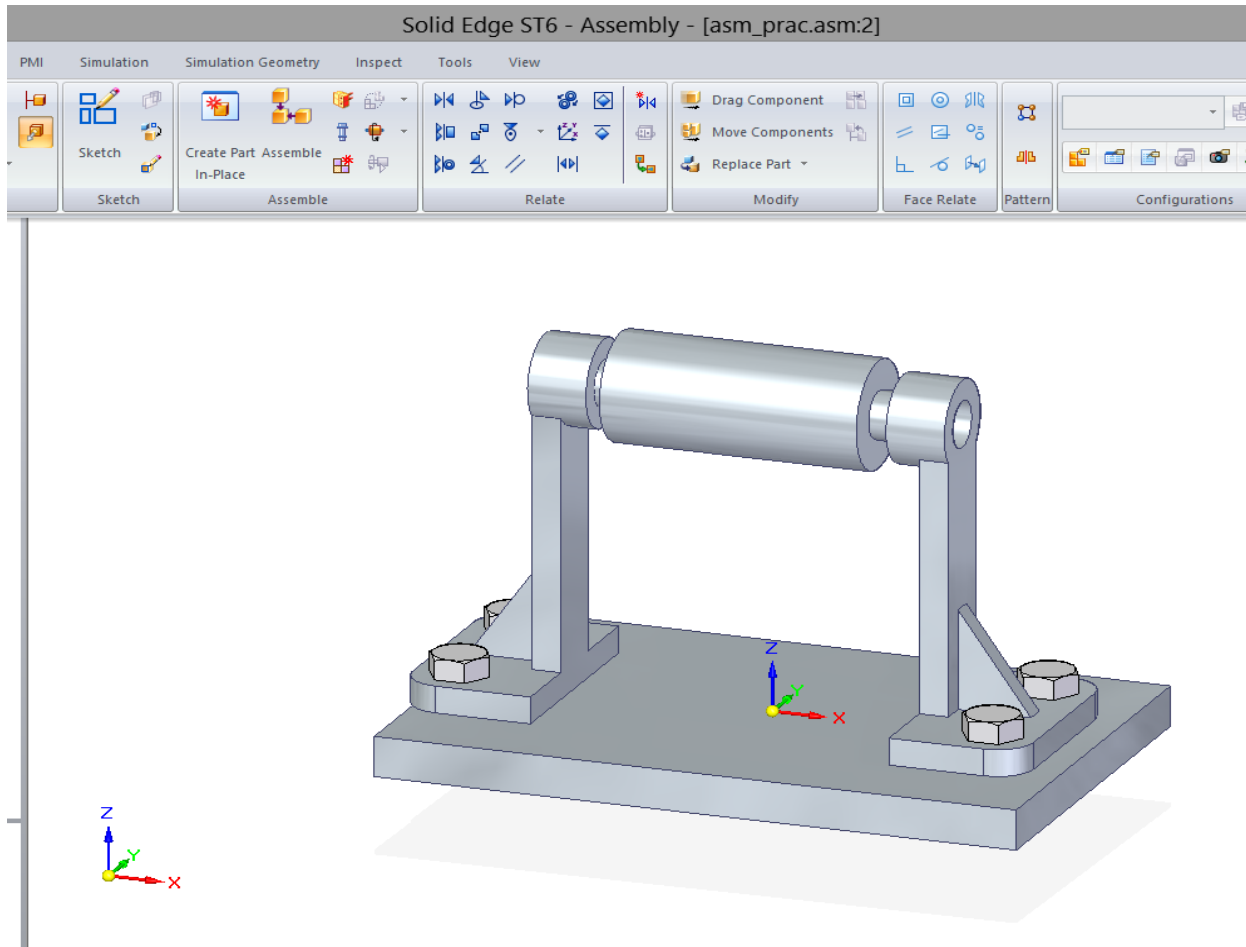
Assembly of parts Exploded



outs or click 'Finish' to complete the explosion.

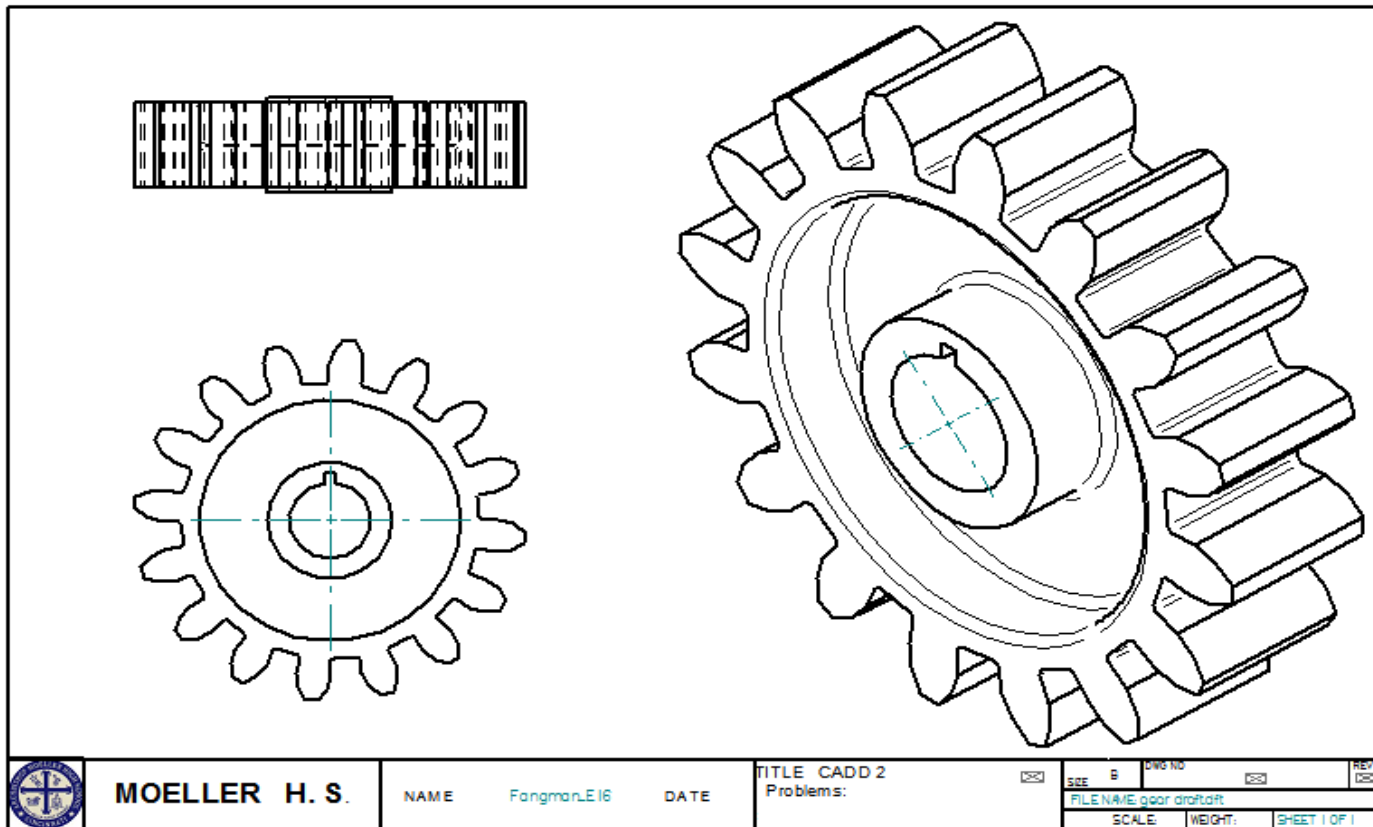
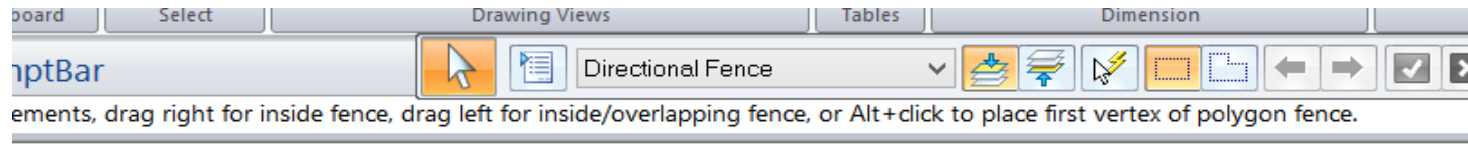


Assembly

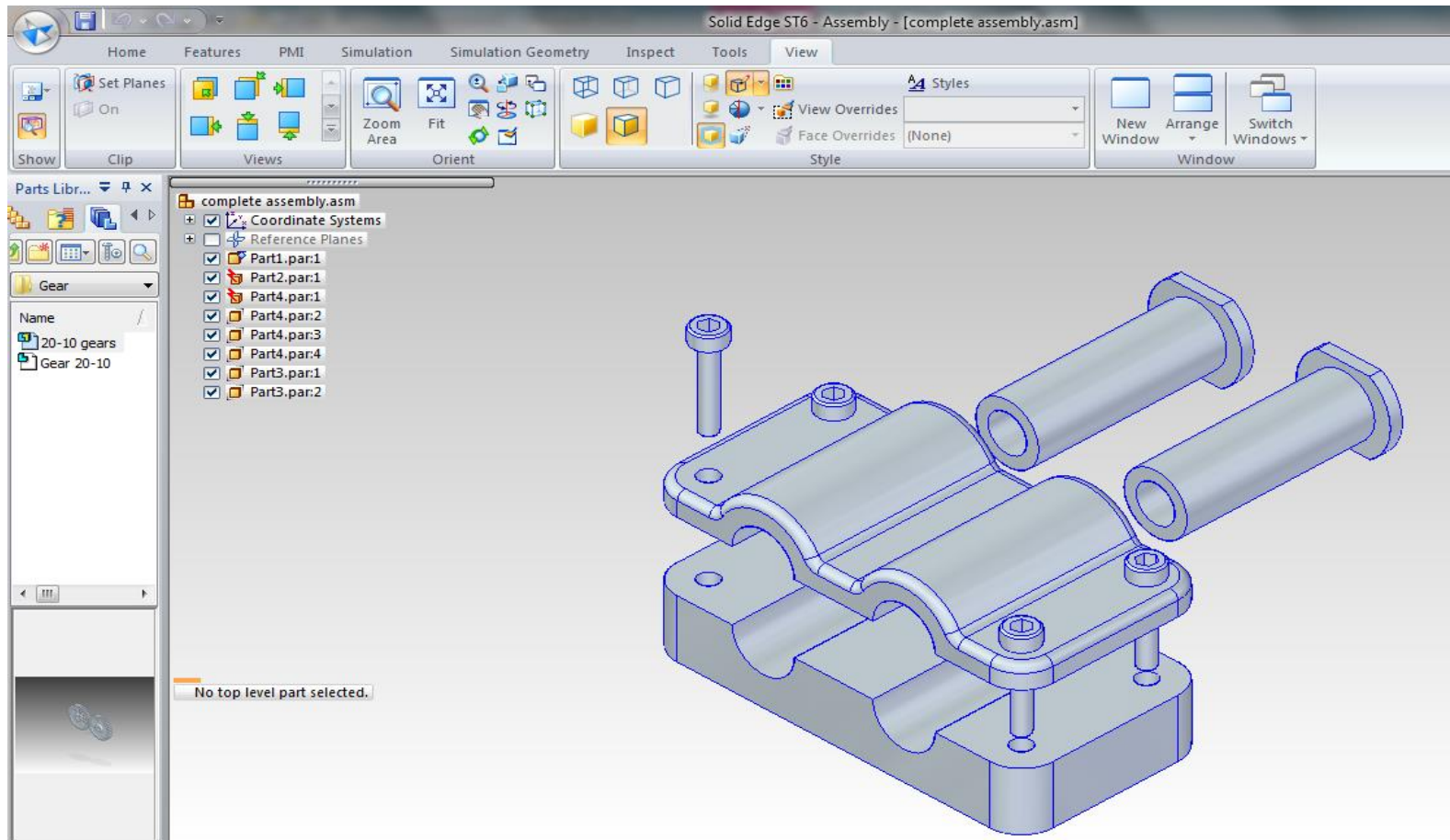


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Spur Gear Design



Assembly of parts



assembly of parts, explode views

