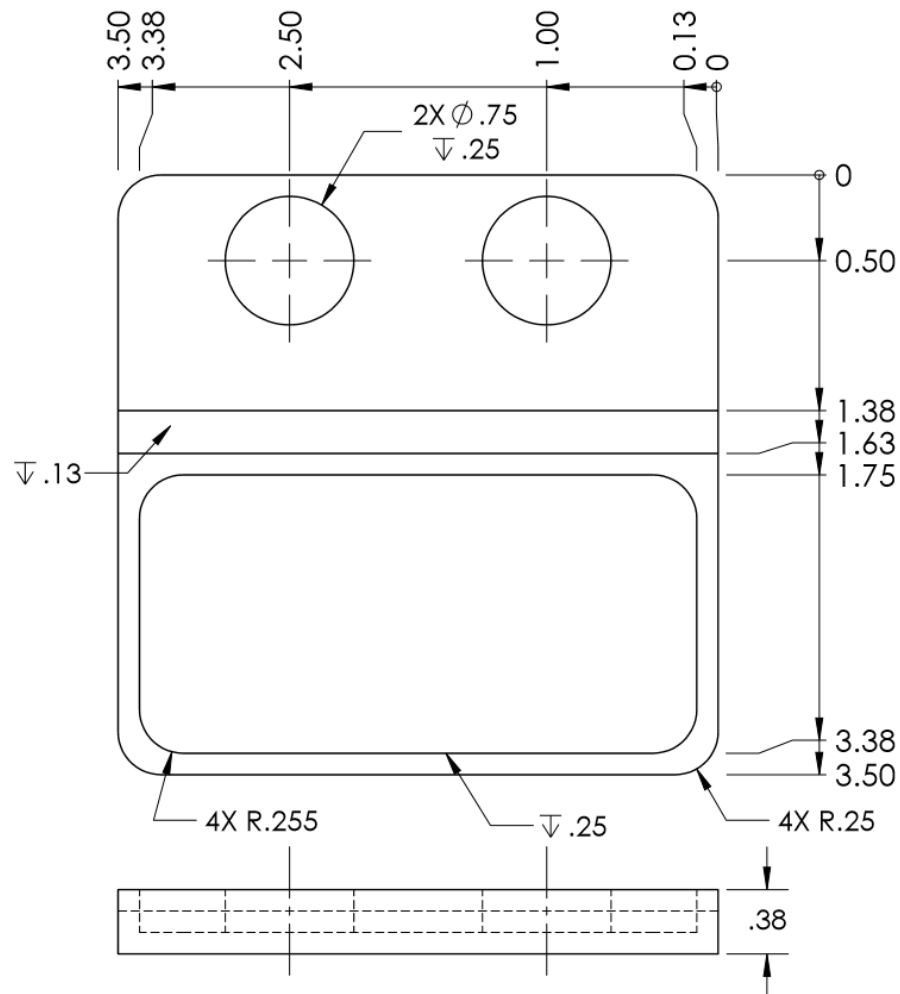


Drawing Requirements and Suggestions

30 August 2018



NOTES:
 - DIMENSIONS IN INCHES
 - DEBURR SHARP EDGES
 - THIRD ANGLE PROJECTION

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| | | | |
|---|---|------------------|--|
| TOLERANCES (UNLESS OTHERWISE NOTED) | PROJECT OR CLASS: MEEG 304 MACHINE DESIGN | | |
| DECIMAL .XXX ± .005 .XX ± .010 .X ± .050 | DRAWING TITLE: CNC PROJECT- DESK ORGANIZER | | |
| | DRAWN BY: L. SZEWCZAK | DATE: 03/06/2017 | |
| | CHECKED BY: | DATE: | |
| FRACTIONAL ± 1/32 | APPROVED BY: J. Glancey | DATE: | |
| | MATERIAL: ALUMINUM | QUANTITY: 1 | |
| ANGULAR ± 0.5 DEG | SCALE: 1:1 | DWG NO: 1 OF 1 | |
| | BILLING ACCOUNT: | | |

Grading

- Points for each drawing element and total grade shown on your page.
- Total grade is circled at the bottom.

Elements of a Good Engineering Drawing:

- Title Block and Notes (20)
- Orthographic and Isometric Views (10)
- Dimensions (40)
- Features / Machinable (20)
- Overall Neatness (10)

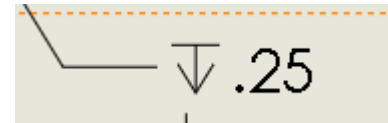
Standard Drawing Practices

- Apply the standard drawing practices introduced in MEEG 202 to your plate drawing.
- Refer to the Drawing Practices documents in the Canvas folder for the Machine Shop Project.

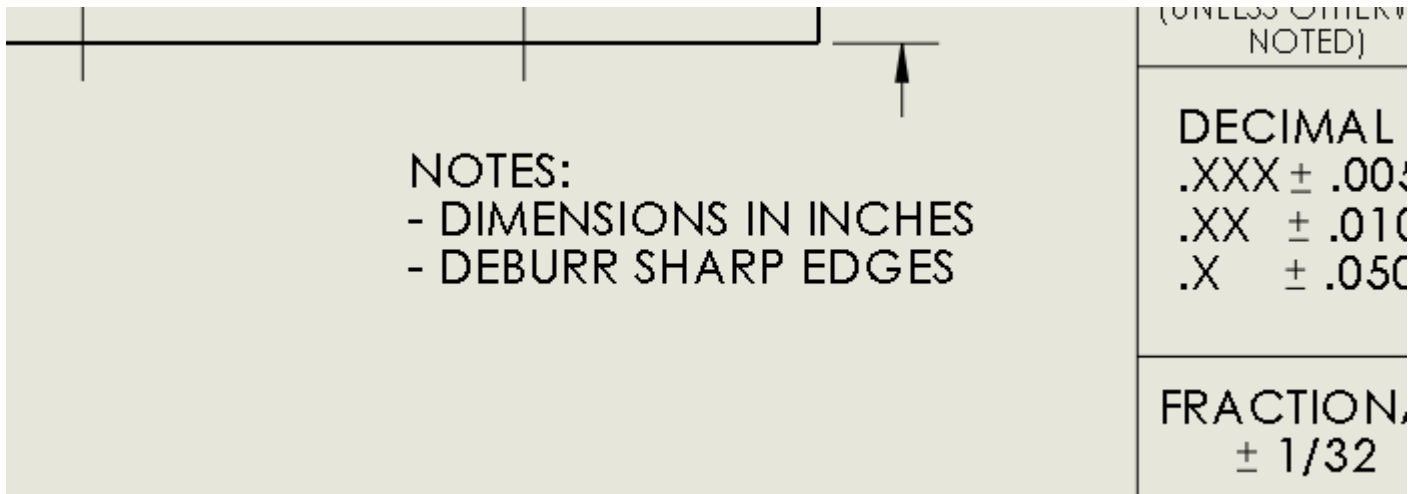
Tips and Tricks

Details on the Slides that Follow

- What notes to use
- How to remove tangent edge lines
- How to use ordinate dimension
- How to remove leaders from part views
- Where to find the depth callout symbol:
- What a correct isometric view should look like



What notes to use



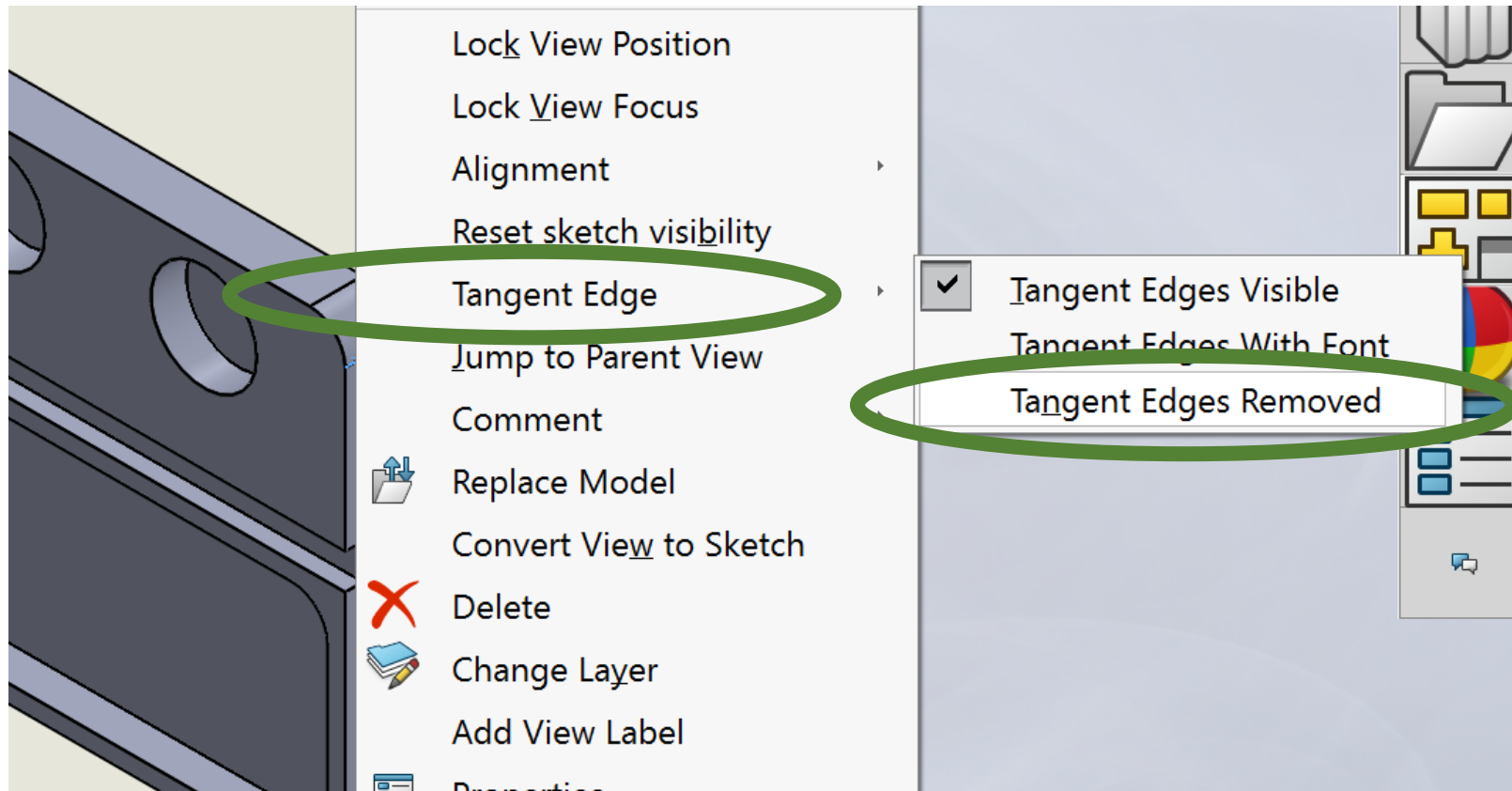
The image shows a technical drawing of a stepped shaft. A horizontal line represents the shaft, with two vertical tick marks indicating a dimension. To the right of the dimension line, there is a feature control frame. The frame is divided into two sections. The top section contains the text 'NOTES:' followed by two bullet points: '- DIMENSIONS IN INCHES' and '- DEBURR SHARP EDGES'. The bottom section contains the text 'DECIMAL' followed by three lines of tolerance specifications: '.XXX ± .003', '.XX ± .010', and '.X ± .050'. To the right of the feature control frame, there is a table with two rows. The first row is labeled '(UNLESS OTHERWISE NOTED)' and the second row is labeled 'FRACTION, ± 1/32'.

| | |
|---|--|
| <p>NOTES:</p> <ul style="list-style-type: none">- DIMENSIONS IN INCHES- DEBURR SHARP EDGES | (UNLESS OTHERWISE NOTED) |
| | <p>DECIMAL</p> <p>.XXX ± .003</p> <p>.XX ± .010</p> <p>.X ± .050</p> |
| | <p>FRACTION,</p> <p>± 1/32</p> |

Everyone's drawing needs these two notes included (worth 10 points total).

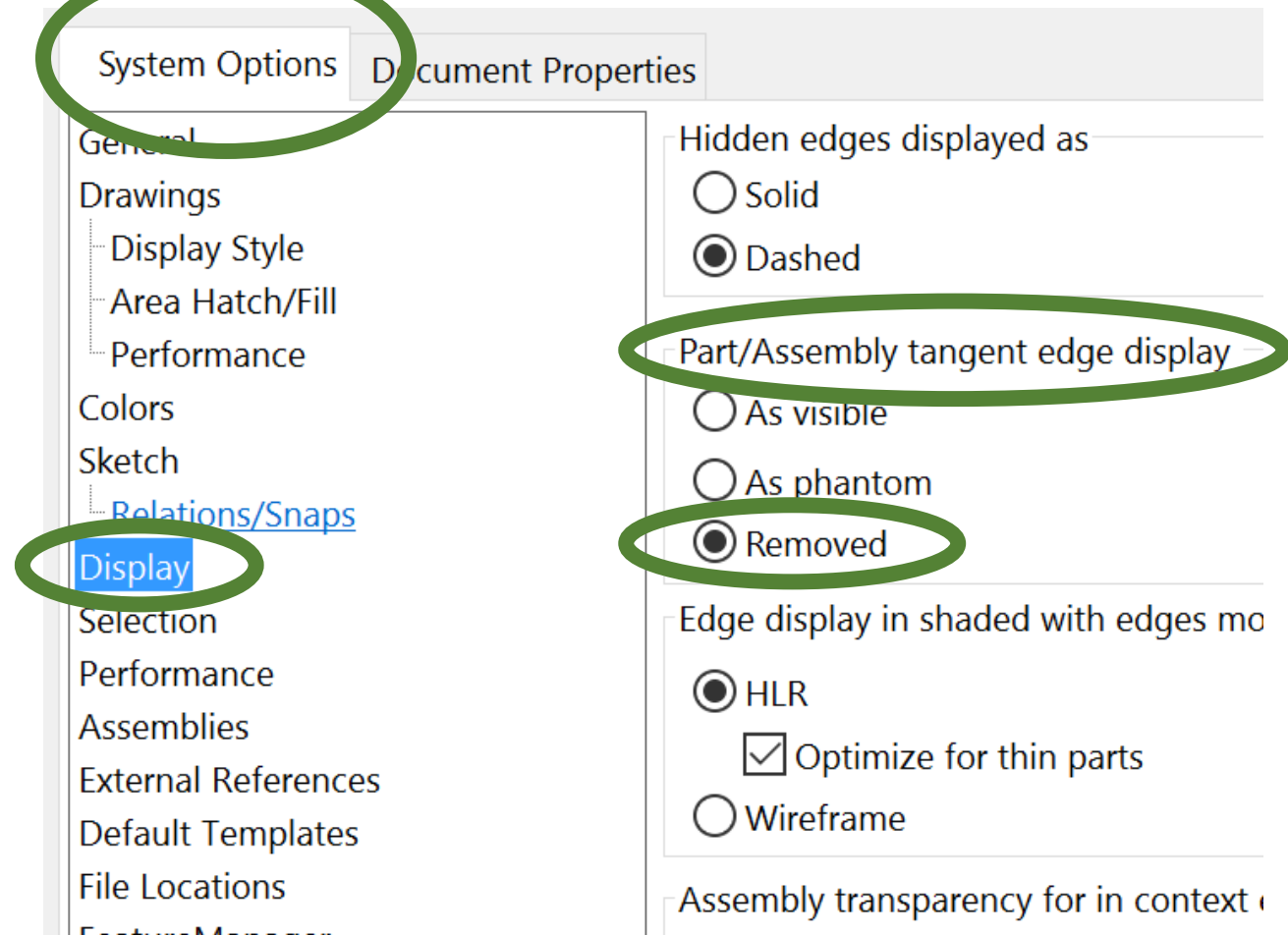
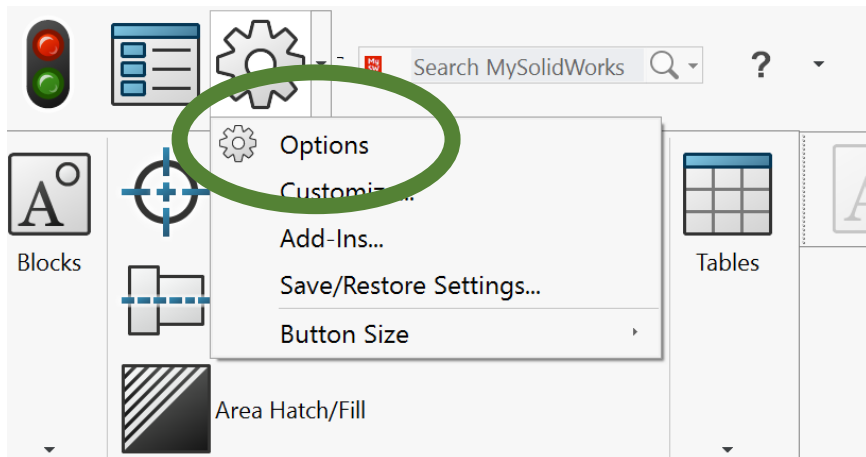
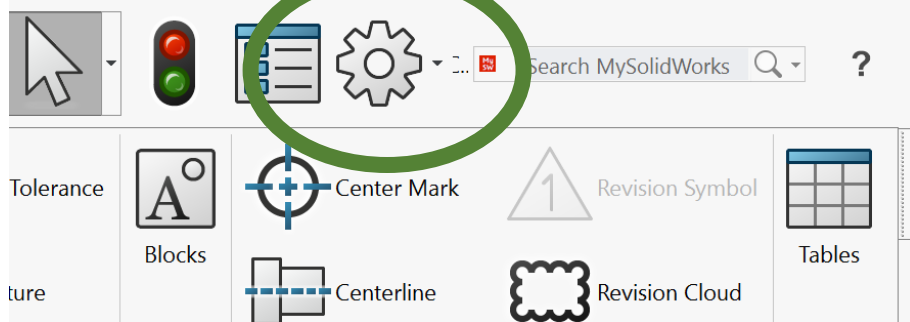
How to remove tangent edge lines: Method 1

Right-click on tangent edge line > Tangent Edge > Tangent Edge Removed



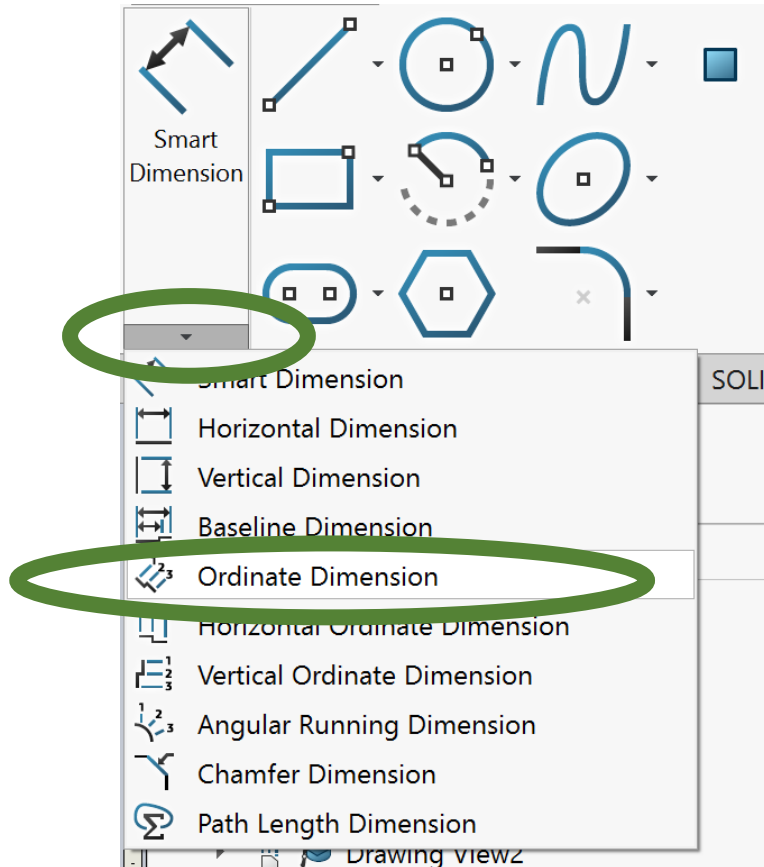
How to remove tangent edge lines: Method 2

- Click on gear in top bar > Options > System Options > Display (or Display/Selections) > Part/Assembly Tangent Edge > Removed



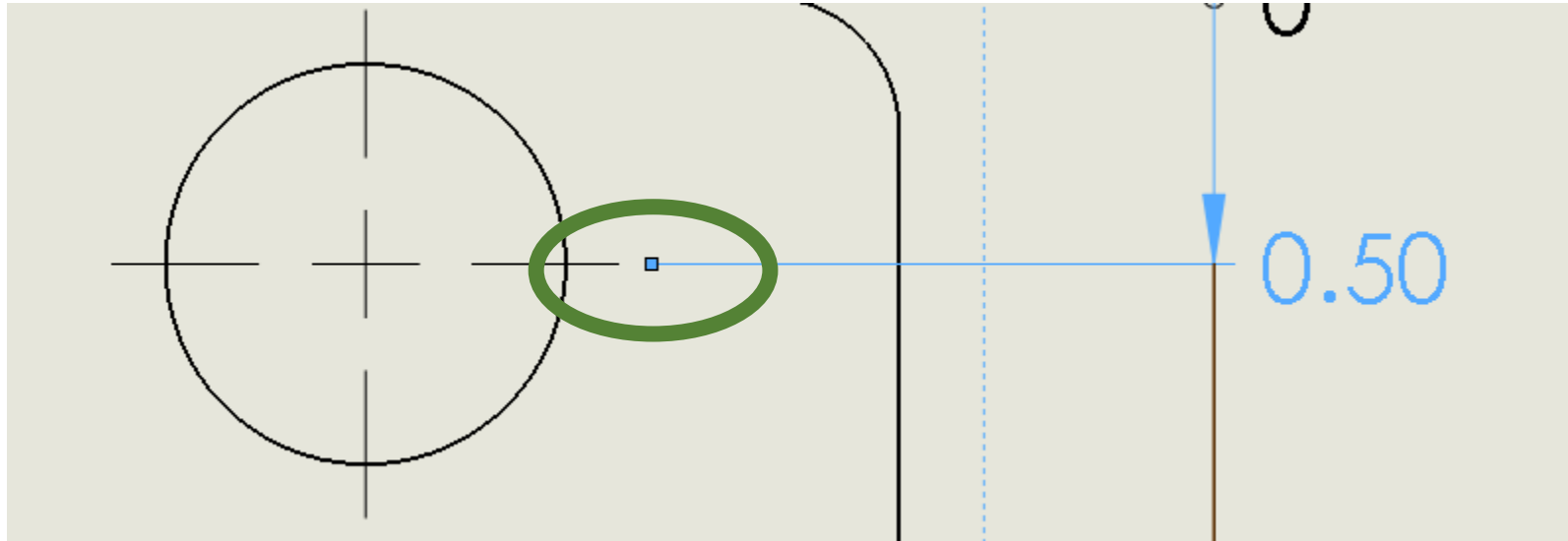
How to Use Ordinate Dimension

- Click on drop down under Smart Dimension > Click “Ordinate Dimension” > Click on Zero line (0,0 measurement) > Click on each measurement



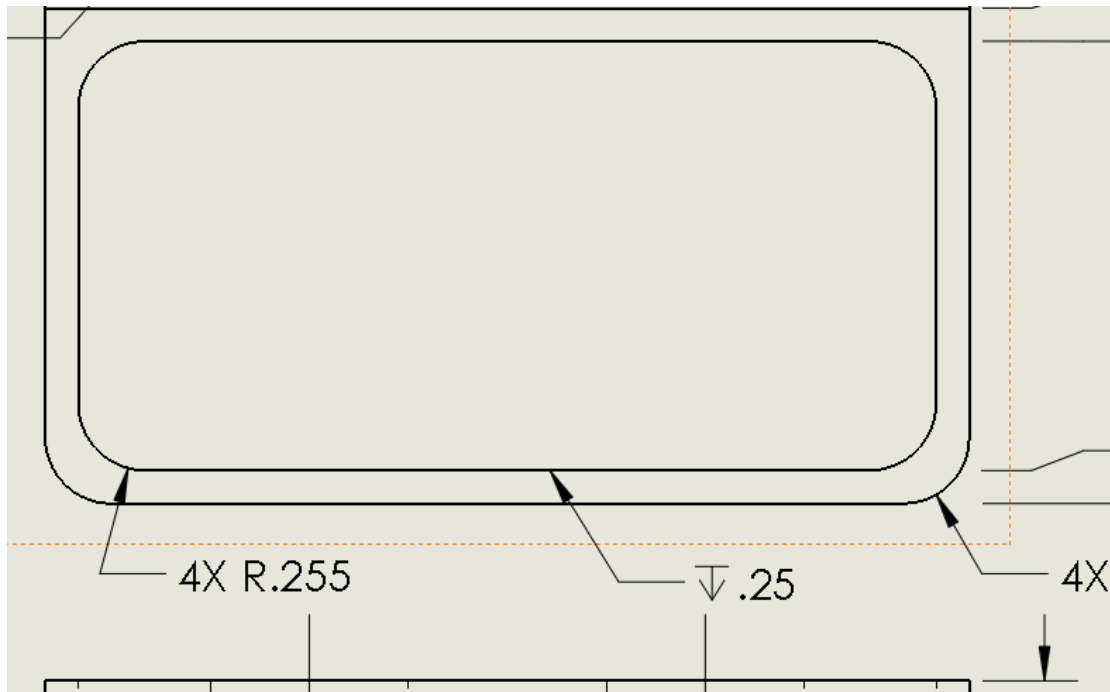
How to remove leaders from part views

- Click on measurement > Click on blue dot > Drag off part

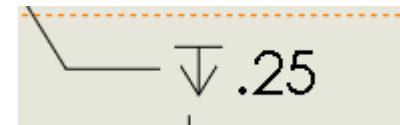


Where to find the depth callout symbol

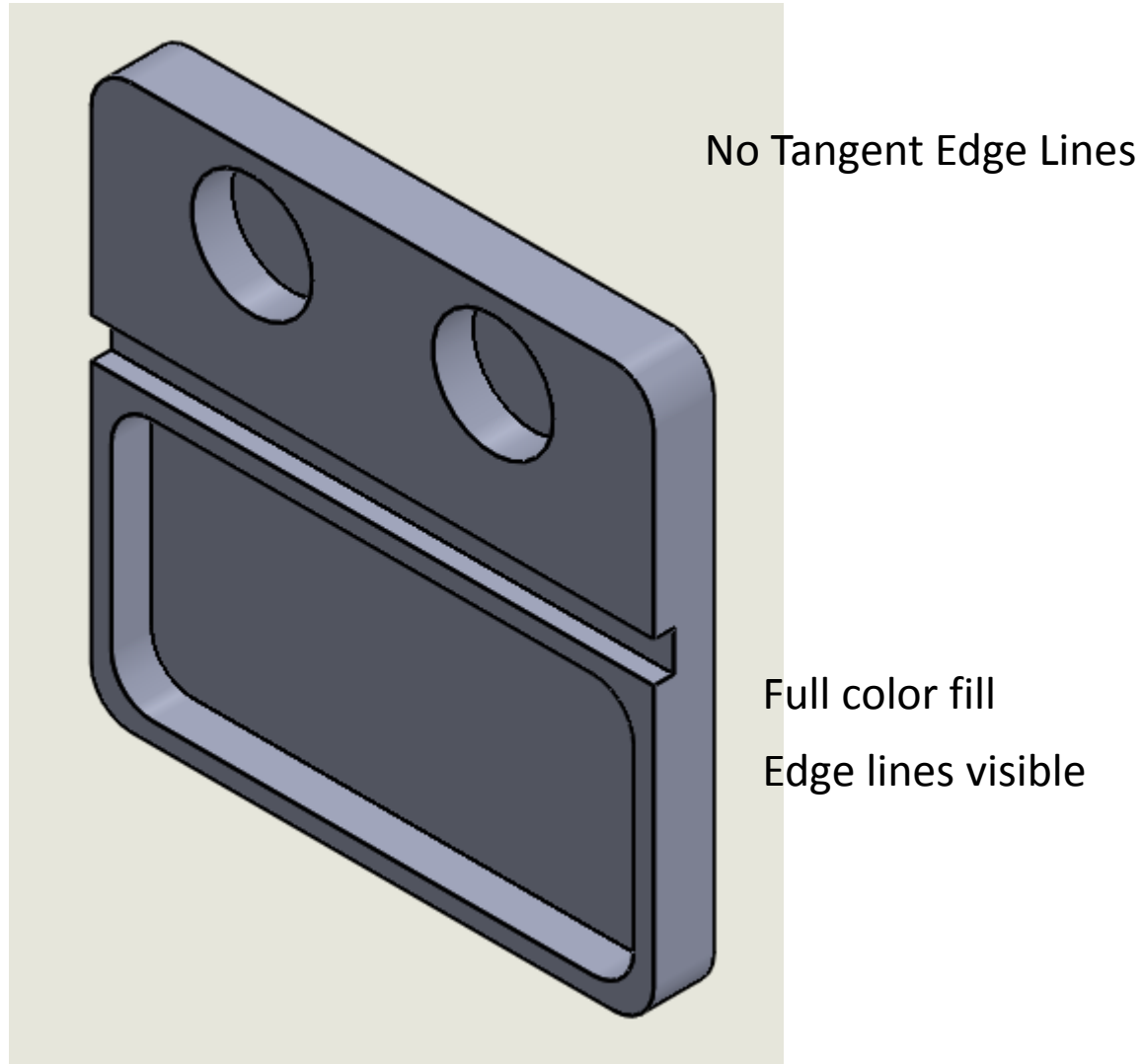
Many feature needs a depth Call-out



- To get the depth symbol:
 - Label feature with an annotation
 - Type: <HOLE-DEPTH> .25
 - Will look auto-fill to:



What a correct isometric view should look like



Use display style: “Shaded with Edges”

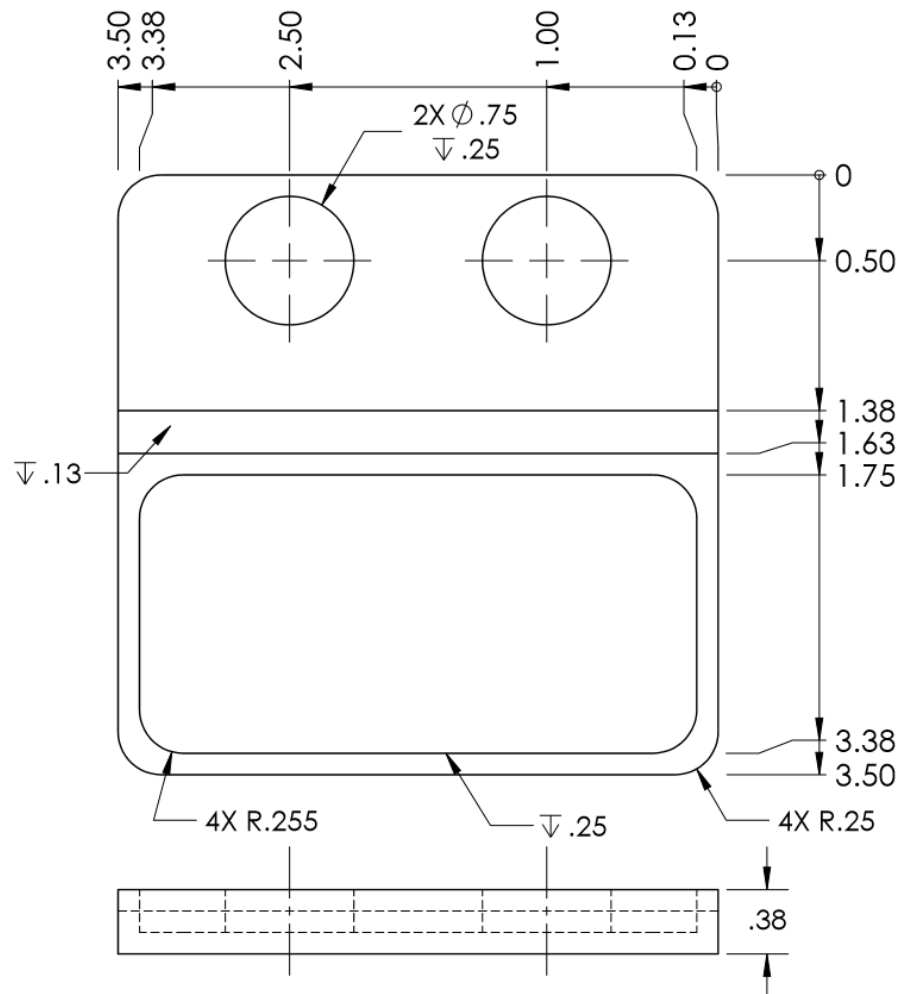
Display Style

☐ Use parent style



☐ High quality

☒ Draft quality



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| ANGULAR ± 0.5 DEG | SCALE: 1:1 | DWG NO: 1 OF 1 |
| | BILLING ACCOUNT: | |

We need to see the following students now.

- Students that did not take MEEG 202
 - Office hours help for Solidworks
 - Other students also welcome
- Students that did not make the plate and threaded polymer block in MEEG 202
 - Special machine shop session