

| 4 | | 3 | |
|----------|-----------------------------|--|------|
| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
| 1 | Connection Piece | Connection Piece | 1 |
| 2 | Laptop Platform | Laptop Platform | 1 |
| 3 | Base | Base | 1 |
| 4 | Inner Arm | Inner Arm | 1 |
| 5 | Outer Arm | Outer Arm | 1 |
| 6 | HBOLT 0.2500-20x1.5x0.75-S | Hex Bolt Inner arm to Outer Arm | 1 |
| 7 | CR-FHM1 0.25-20x0.75x0.75-S | Flat Head screws for the laptop platform | 4 |
| 8 | HBOLT 0.2500-20x2x0.75-S | Hex Bolt for the base | 3 |
| 9 | HNUT 0.2500-20-D-N | Hex nut used for the whole assembly | 12 |
| 10 | Laptop Clip | Used to clip laptop onto MDF Platform | 2 |
| 11 | Bar Clamp Clip | Used to clip laptop onto MDF Platform using a Rod | 2 |
| 12 | Rod for Bar Clamp | Used as a bar clamp to hold laptop onto MDF platform | 1 |
| 13 | CR-FHM1 0.25-20x1x1-S | Used to screw laptop clip and bar clamp onto laptop platform | 4 |
| 14 | Cap | 2in. x 1in. cylindrical cap for the clamping screw | 1 |
| 15 | HBOLT 0.5000-20x3x3-S | Clamping screw | 1 |

REVISIONS

| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
|------|------|-------------|------|----------|
| | | | | |

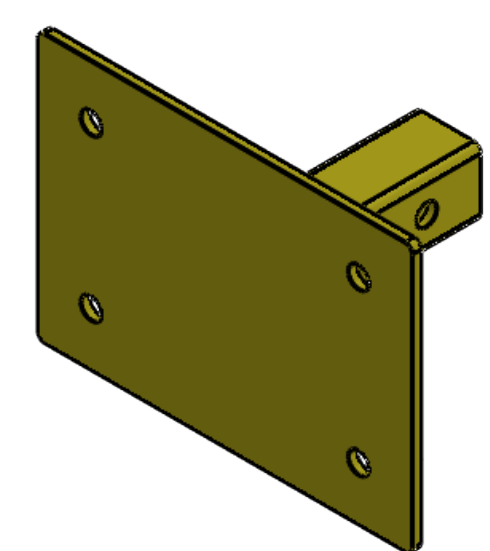
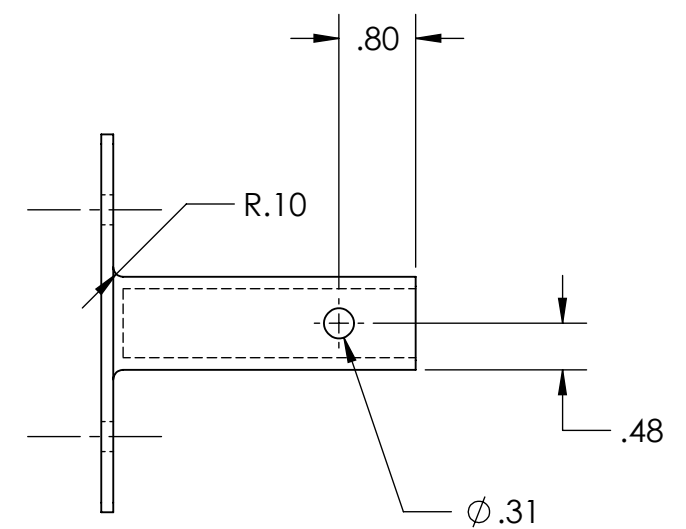
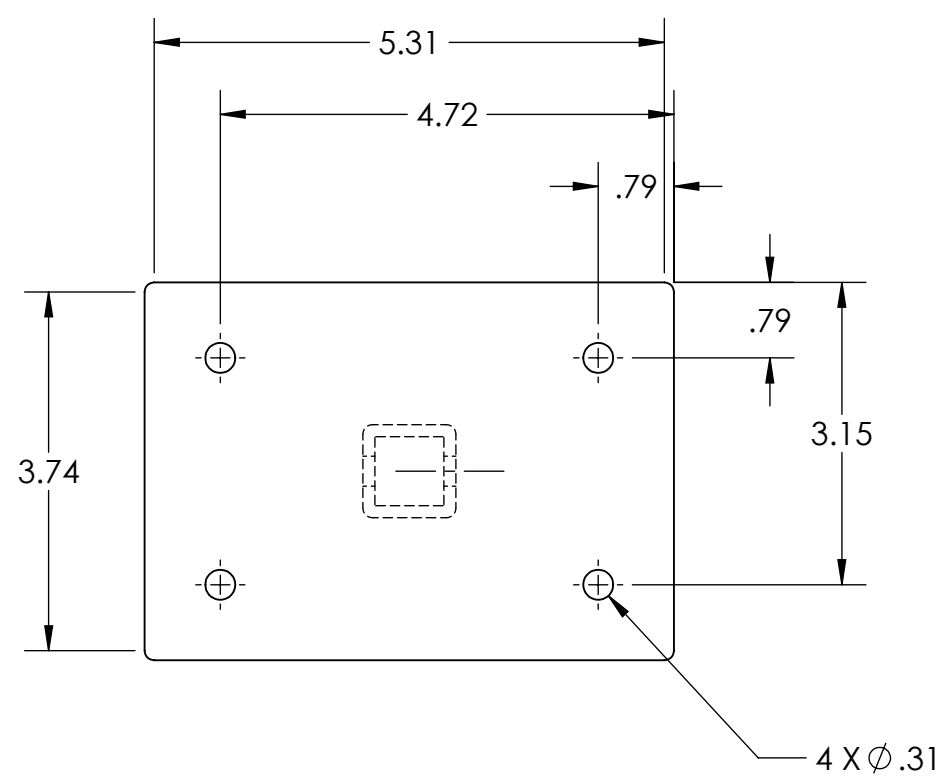
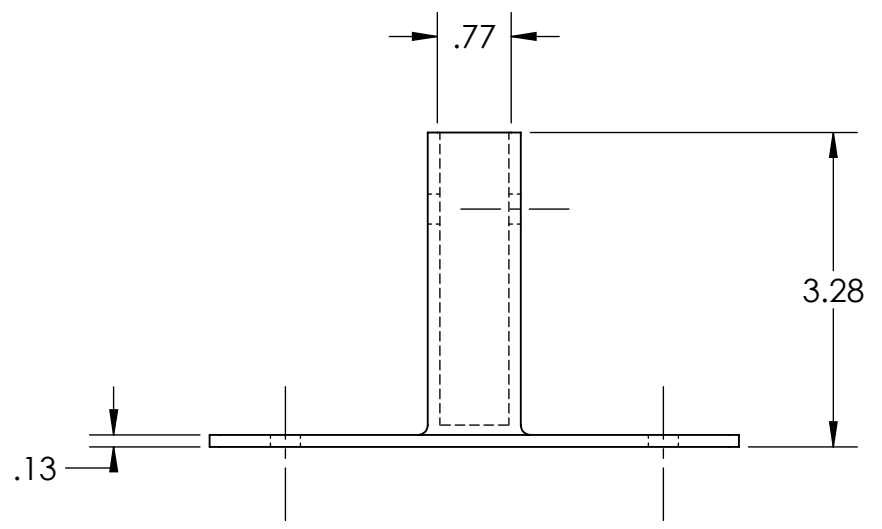
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|--|--|-----------|---------------|--|-------------------------------------|---|--|------------------|---------------|
| UNLESS OTHERWISE SPECIFIED: | | NAME | DATE | <div>UNIVERSITY OF OTTAWA</div> <div>TITLE:</div> <div>Special Keyboard Assembly</div> <div>Special Keyboard</div> | | | | | |
| <div>DIMENSIONS ARE IN INCHES</div> <div>TOLERANCES:</div> <div>FRACTIONAL ± 1/32"</div> <div>ANGULAR: MACH ± .1°</div> <div>TWO PLACE DECIMAL ± .010"</div> <div>THREE PLACE DECIMAL ± .005"</div> <div>INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009</div> <div>MATERIAL</div> <div>FINISH</div> <div>DO NOT SCALE DRAWING</div> | | DRAWN | Andre Alvarez | | | 12/3/2019 | | | |
| | | CHECKED | | | | | | | |
| | | ENG APPR. | | | | | | | |
| | | MFG APPR. | | | | | | | |
| | | Q.A. | | | <div>SIZE</div> <div>B</div> | <div>DWG. NO.</div> <div>Assembly</div> | | <div>REV</div> | |
| | | COMMENTS: | | | | SCALE: 1:5 | | WEIGHT: 1.97 lbs | SHEET 1 OF 10 |
| | | | | | | | | | |

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|---|-----------|---------------|-----------|---|----------|---------------|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .1° TWO PLACE DECIMAL ± .010" THREE PLACE DECIMAL ± .005" INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 MATERIAL ABS FINISH DO NOT SCALE DRAWING | | NAME | DATE | <div>UNIVERSITY OF OTTAWA</div> <div>TITLE: Connection Piece Special Keyboard</div> <div>SIZE B</div> <div>SCALE: 1:2</div> | | |
| | DRAWN | Andre Alvarez | 12/3/2019 | | | |
| | CHECKED | | | | | |
| | ENG APPR. | | | | | |
| | MFG APPR. | | | | | |
| | COMMENTS: | | | Q.A. | | |
| | | | | SIZE | DWG. NO. | REV |
| | | | | | 1 | |
| | | | | WEIGHT: 0.148 lbs | | SHEET 2 OF 10 |

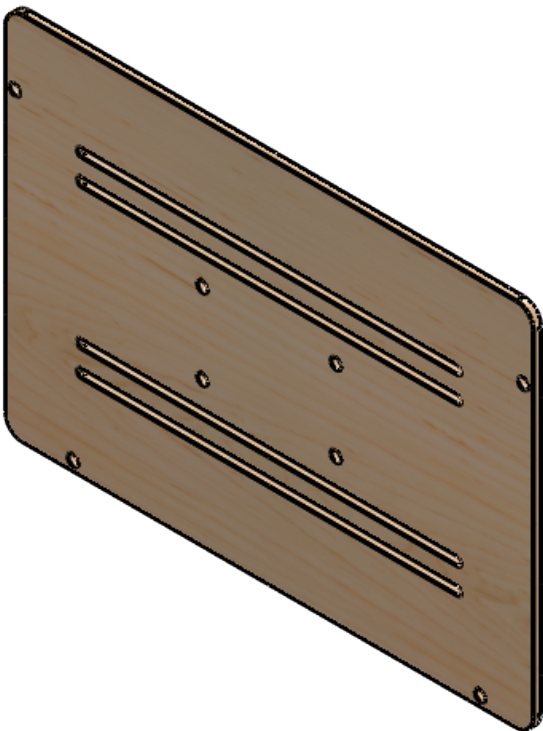
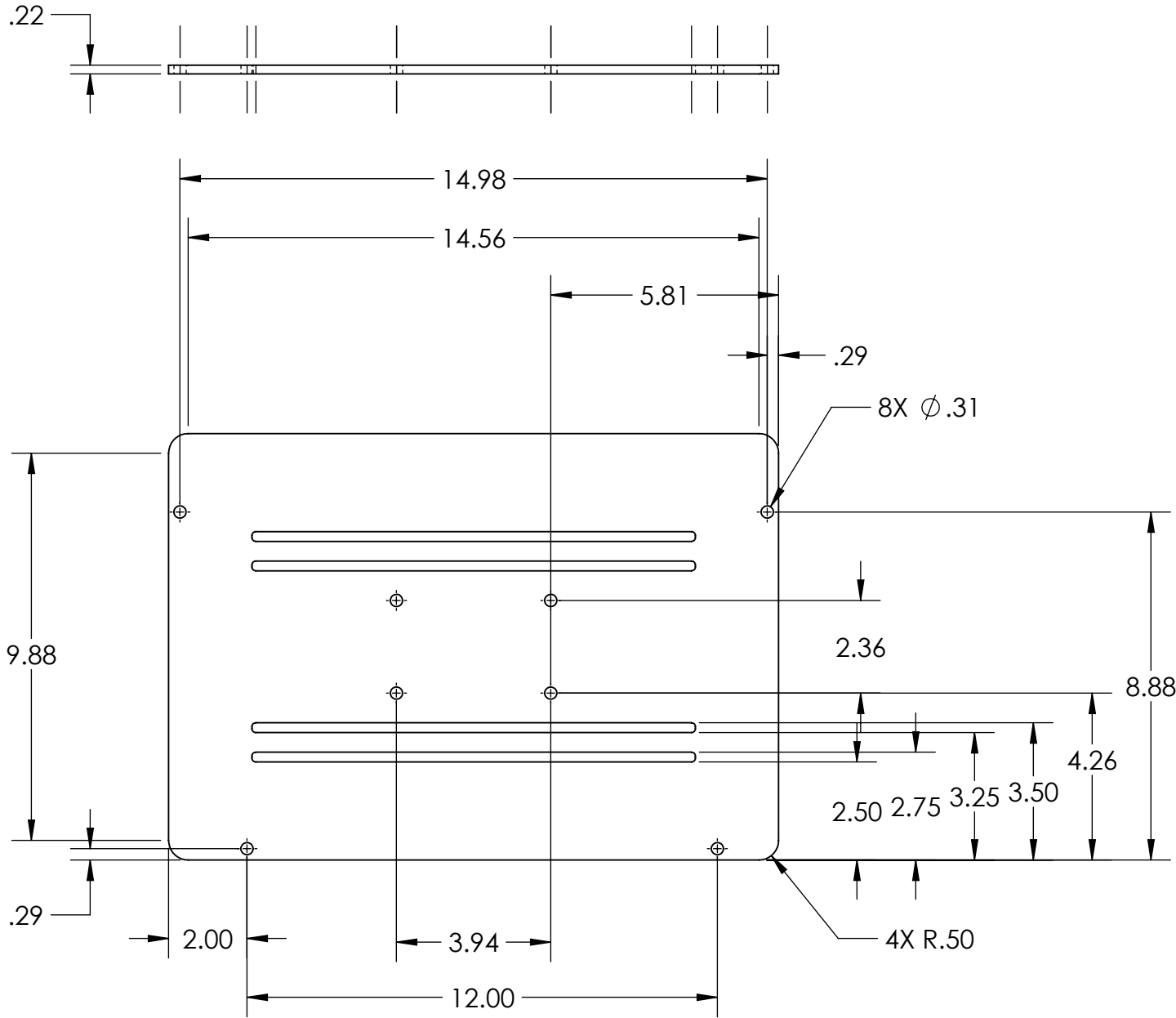
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| REVISIONS | | | | |
|-----------|------|-------------|--|----------|
| ZONE | REV. | DESCRIPTION | | DATE |
| | | | | APPROVED |



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|---|-------------------|-------------------|---------------|----------------------|--|--|-----------|
| UNLESS OTHERWISE SPECIFIED: | | NAME | DATE | UNIVERSITY OF OTTAWA | | | |
| DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .1° TWO PLACE DECIMAL ± .010" THREE PLACE DECIMAL ± .005" | | DRAWN | Andre Alvarez | | | | 12/3/2019 |
| | | CHECKED | | | | | |
| | | ENG APPR. | | | | | |
| | | MFG APPR. | | | | | |
| INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 | | Q.A. | | | TITLE: Laptop Platform Special KeyBoard | | |
| MATERIAL Medium Density Fibreboard | | COMMENTS: | | | | | |
| FINISH | | | | | | | |
| DO NOT SCALE DRAWING | | | | | | | |
| SIZE B | DWG. NO. 2 | | | REV | | | |
| SCALE: 1:4 | | WEIGHT: 2.000 lbs | | SHEET 3 OF 10 | | | |

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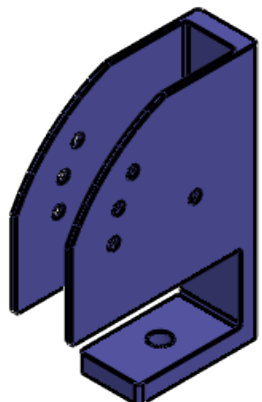
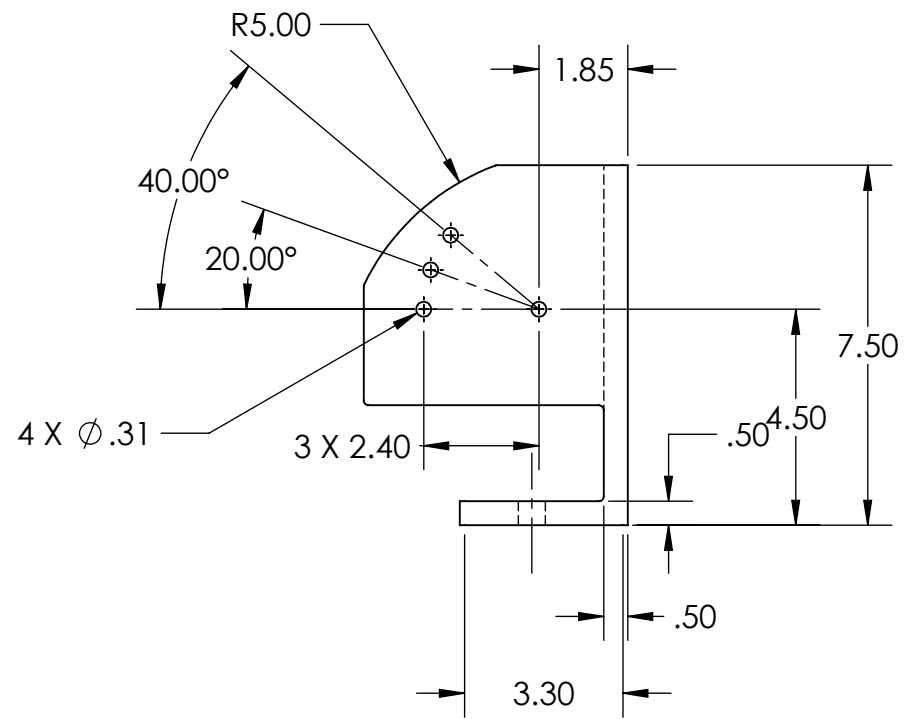
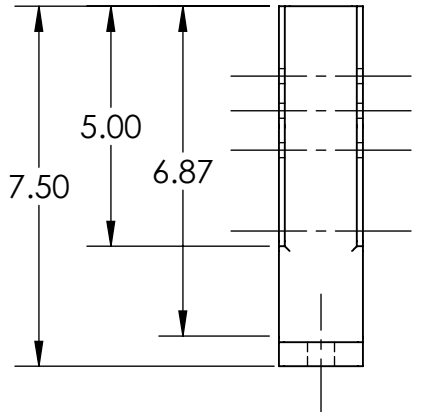
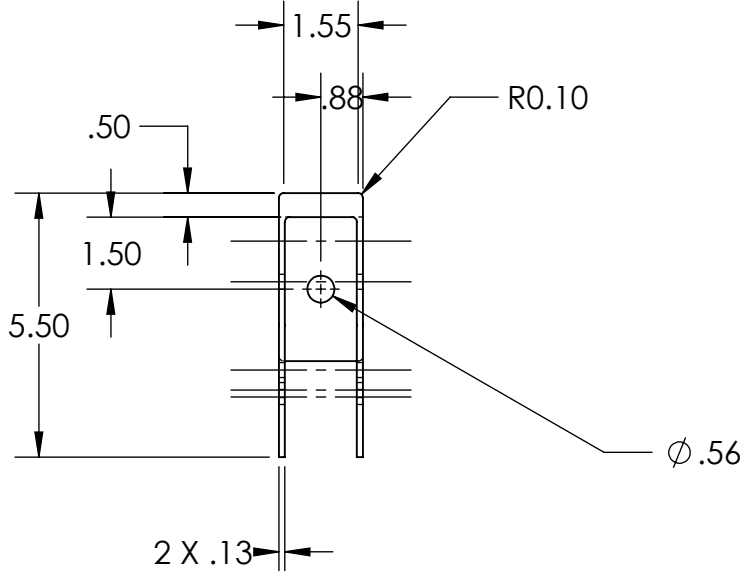
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B

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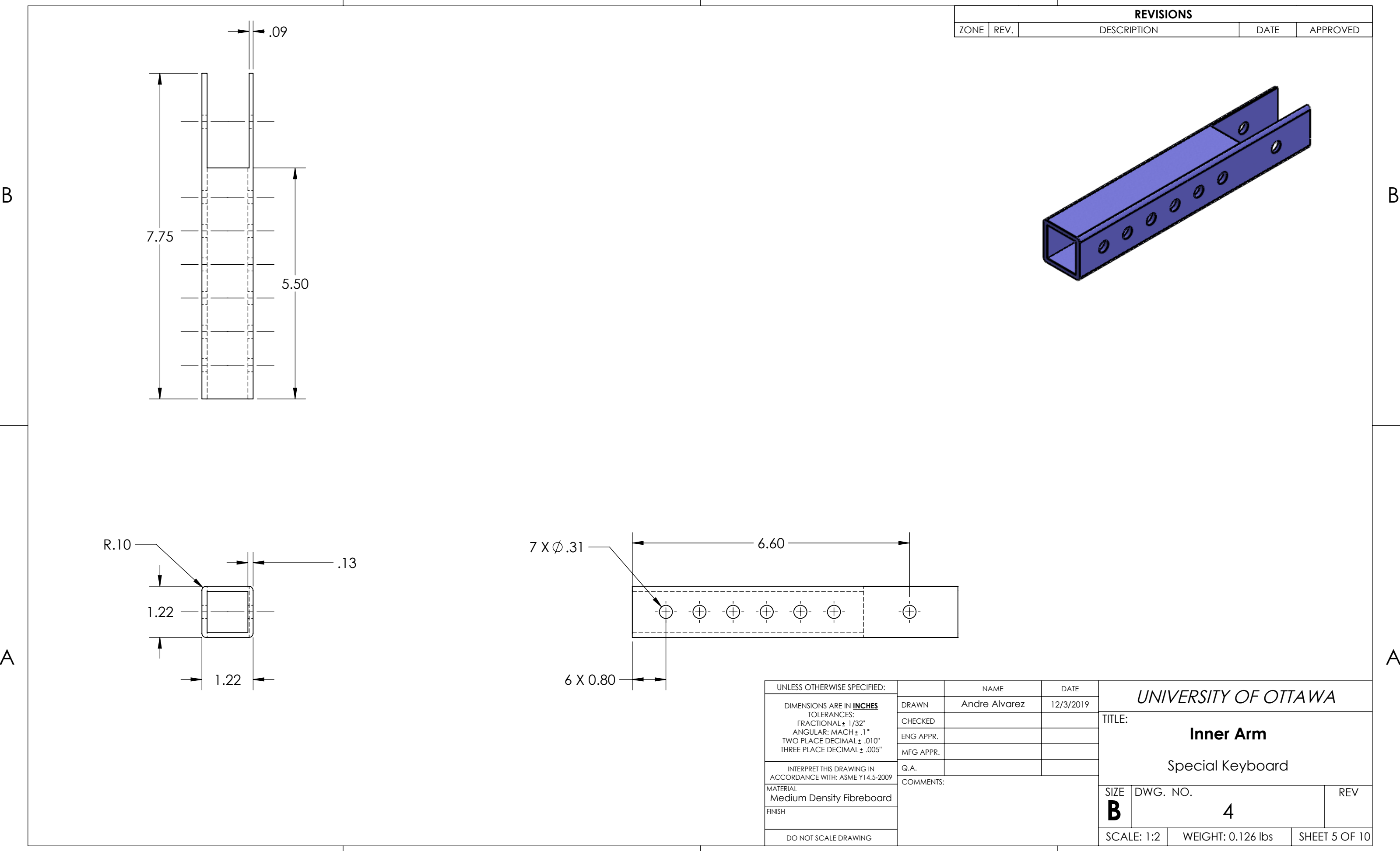
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|---|--|-----------|---------------|-----------|--|---|----------|-------------------|-----|---------------|--|
| UNLESS OTHERWISE SPECIFIED: | | NAME | | DATE | | UNIVERSITY OF OTTAWA | | | | | |
| DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .1° TWO PLACE DECIMAL ± .010" THREE PLACE DECIMAL ± .005" | | DRAWN | Andre Alvarez | 12/3/2019 | | | | | | | |
| | | CHECKED | | | | | | | | | |
| | | ENG APPR. | | | | | | | | | |
| | | MFG APPR. | | | | | | | | | |
| INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 | | Q.A. | | | | TITLE: Base Special Keyboard | | | | | |
| MATERIAL | | COMMENTS: | | | | | | | | | |
| ABS | | | | | | | | | | | |
| FINISH | | | | | | | | | | | |
| DO NOT SCALE DRAWING | | | | | | SIZE | DWG. NO. | | REV | | |
| | | | | | | B | 3 | | | | |
| | | | | | | SCALE: 1:4 | | WEIGHT: 0.538 lbs | | SHEET 4 OF 10 | |

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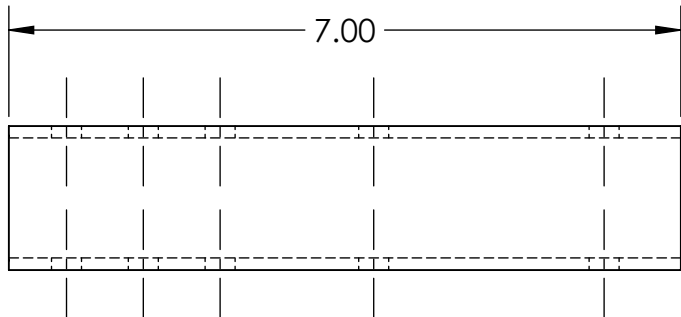
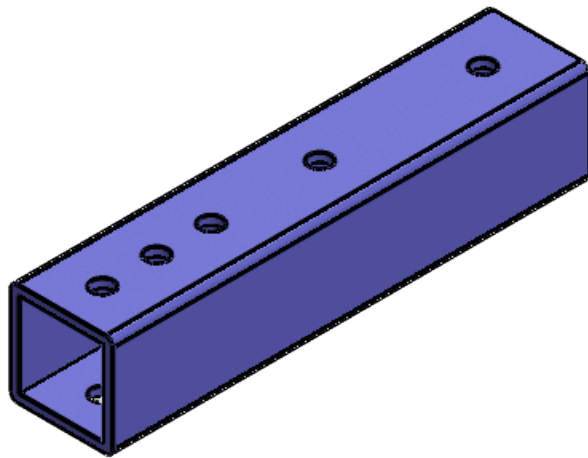
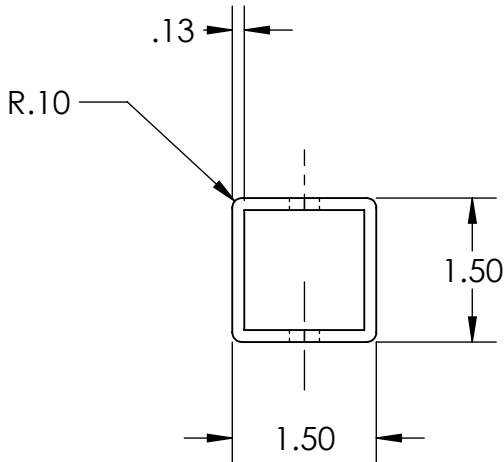
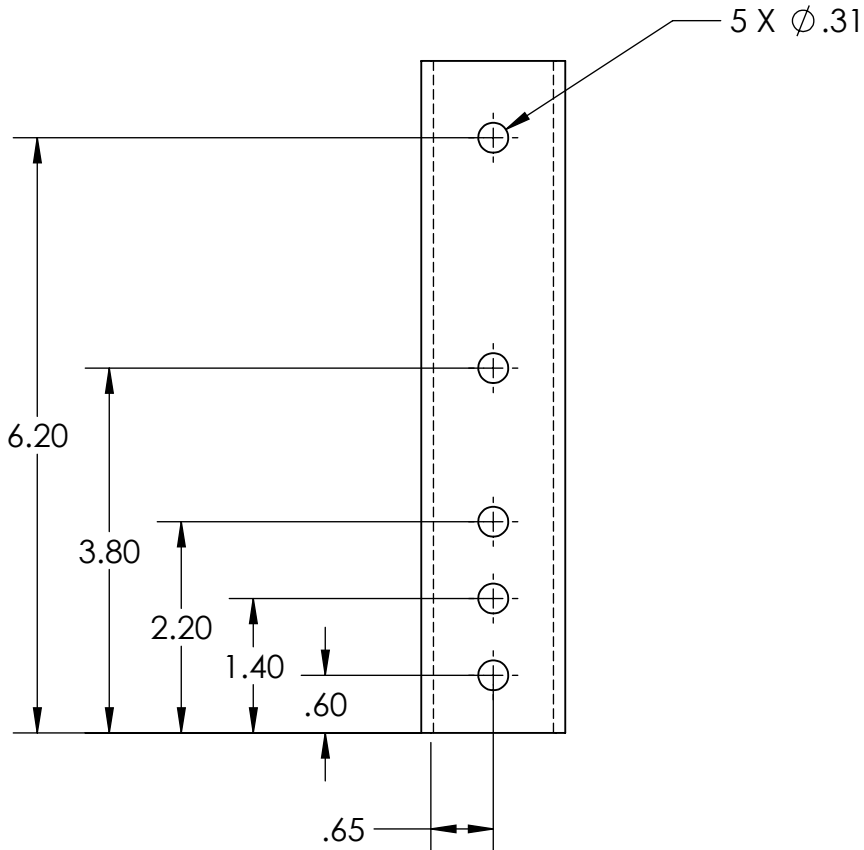


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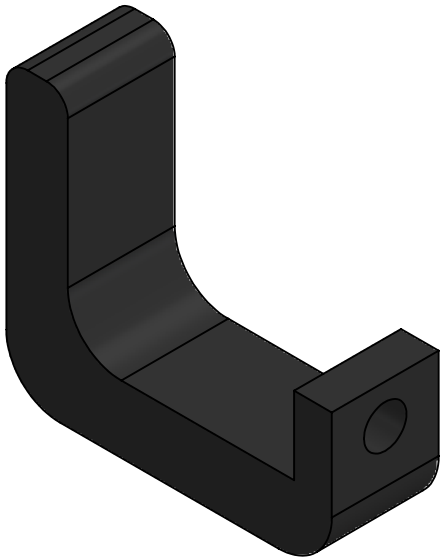
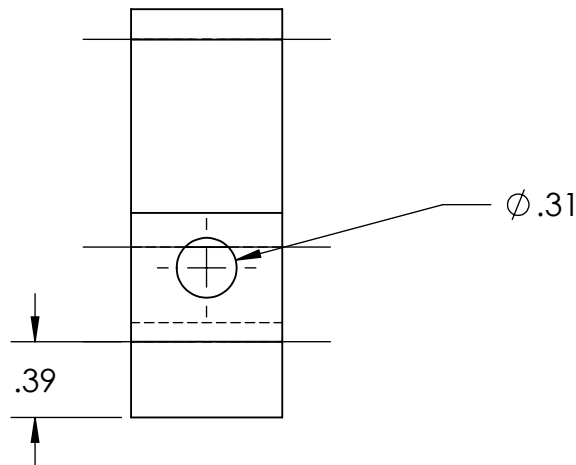
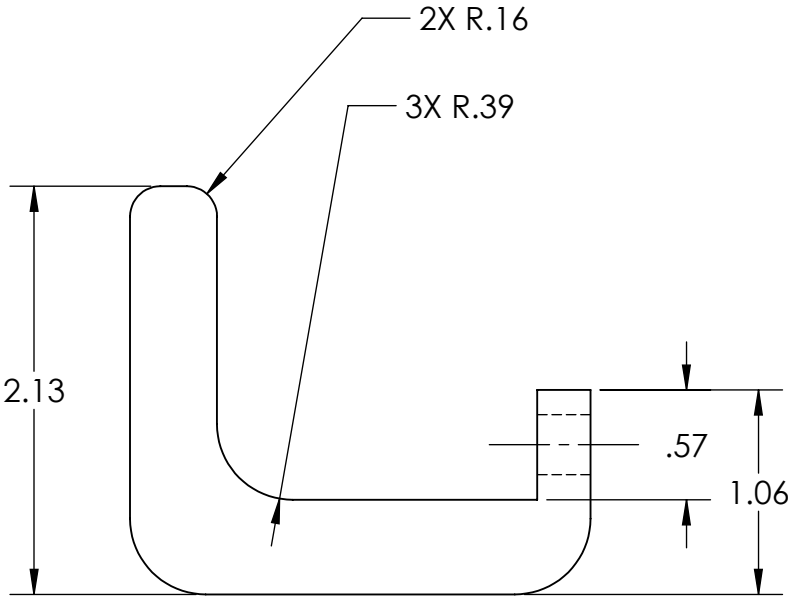
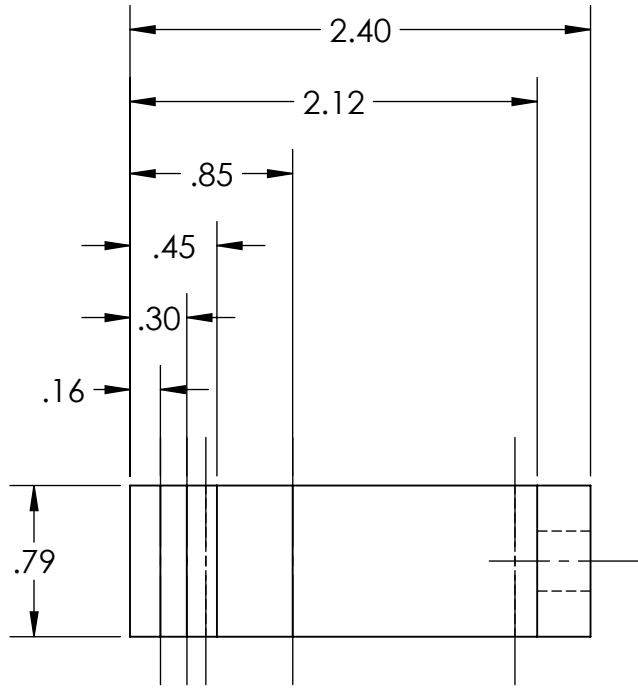
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|---|--|-----------|---------------|-----------|-----------|--|--|--|--|
| UNLESS OTHERWISE SPECIFIED: | | NAME | | DATE | | <div>UNIVERSITY OF OTTAWA</div> <div>TITLE:<div>Outer Arm</div>Special Keyboard</div> <div>SIZE<div>B</div>DWG. NO.<div>5</div>REV</div> <div>SCALE: 1:2WEIGHT: 0.172 lbsSHEET 6 OF 10</div> | | | |
| DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .1° TWO PLACE DECIMAL ± .010" THREE PLACE DECIMAL ± .005" | | DRAWN | Andre Alvarez | 12/3/2019 | | | | | |
| | | CHECKED | | | | | | | |
| | | ENG APPR. | | | | | | | |
| | | MFG APPR. | | | | | | | |
| INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 | | Q.A. | | | COMMENTS: | | | | |
| MATERIAL Medium Density Fibreboard | | | | | | | | | |
| FINISH | | | | | | | | | |
| DO NOT SCALE DRAWING | | | | | | | | | |

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| UNLESS OTHERWISE SPECIFIED: | | NAME | | DATE | | UNIVERSITY OF OTTAWA | | | | | | |
| DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .1° TWO PLACE DECIMAL ± .010" THREE PLACE DECIMAL ± .005" | | DRAWN | Andre Alvarez | | 12/3/2019 | | TITLE: Laptop Clip Special Keyboard | | | | | |
| | | CHECKED | | | | | | | | | | |
| | | ENG APPR. | | | | | | | | | | |
| | | MFG APPR. | | | | | | | | | | |
| INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 | | Q.A. | | | | | | | | | | |
| MATERIAL | | COMMENTS: | | | | SIZE | | | DWG. NO. | | REV | |
| ABS | | | | | | B | | 6 | | | | |
| FINISH | | | | | | | | | | | | |
| DO NOT SCALE DRAWING | | | | | | | | | | | | |
| | | | | | | SCALE: 1:1 | | WEIGHT: 0.06 lbs | | SHEET 7 OF 10 | | |

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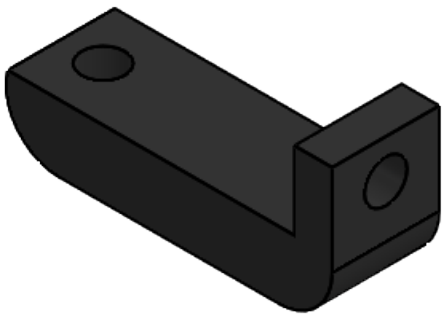
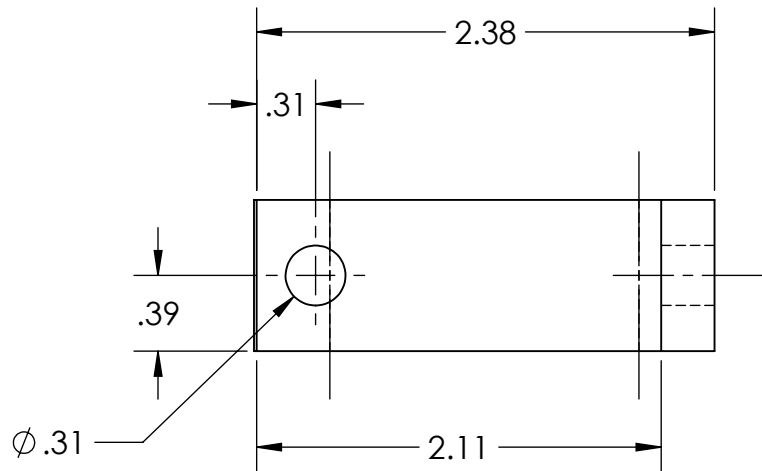
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2

1

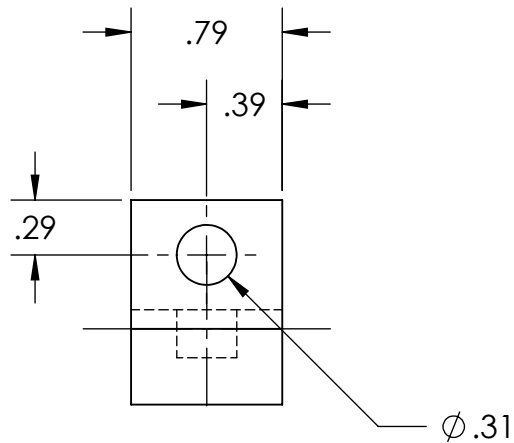
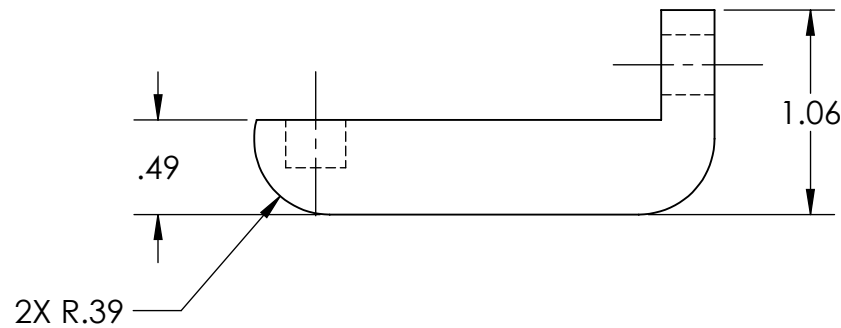
| REVISIONS | | | | |
|-----------|------|-------------|--|----------|
| ZONE | REV. | DESCRIPTION | | DATE |
| | | | | APPROVED |

B



B

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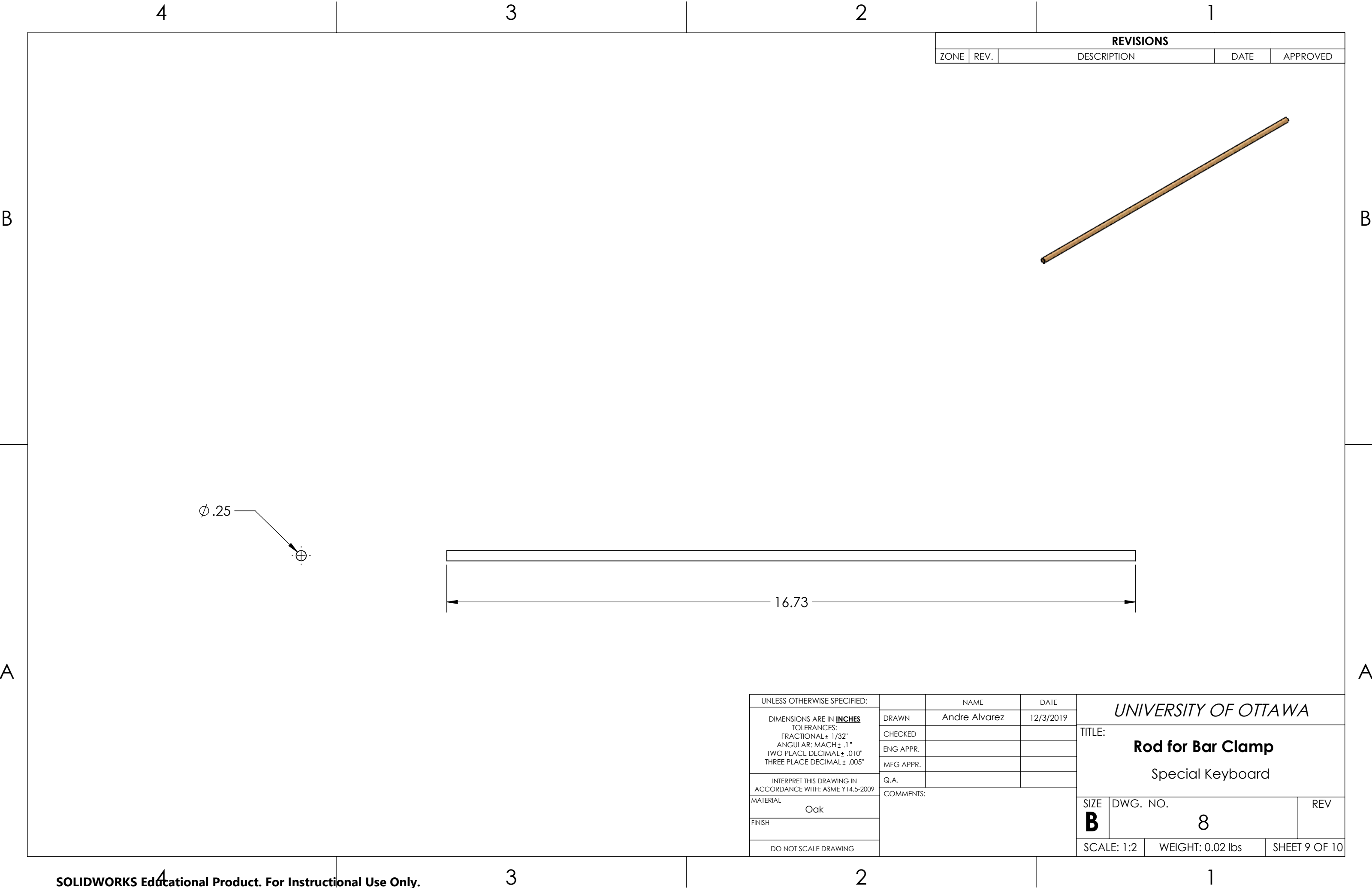
A

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|--|-----------|---------------|-----------|---|------------------|
| UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/32"$ ANGULAR: MACH $\pm .1^\circ$ TWO PLACE DECIMAL $\pm .010"$ THREE PLACE DECIMAL $\pm .005"$ INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 | | NAME | DATE | UNIVERSITY OF OTTAWA TITLE: Bar Clamp Special Keyboard | |
| | DRAWN | Andre Alvarez | 12/3/2019 | | |
| | CHECKED | | | | |
| | ENG APPR. | | | | |
| | MFG APPR. | | | | |
| MATERIAL | COMMENTS: | | | SIZE | DWG. NO. |
| FINISH | | | | B | 7 |
| DO NOT SCALE DRAWING | | | | SCALE: 1:1 | WEIGHT: 0.04 lbs |
| | | | | SHEET 8 OF 10 | |

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| REVISIONS | | | | |
|-----------|------|-------------|------|----------|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |

| | | | | | | | | | | | |
|---|--|-----------|---------------|------|-----------|----------------------|--|------------------|-----|---------------|--|
| UNLESS OTHERWISE SPECIFIED: | | NAME | | DATE | | UNIVERSITY OF OTTAWA | | | | | |
| DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32" ANGULAR: MACH ± .1° TWO PLACE DECIMAL ± .010" THREE PLACE DECIMAL ± .005" | | DRAWN | Andre Alvarez | | 12/3/2019 | | TITLE: Rod for Bar Clamp Special Keyboard | | | | |
| | | CHECKED | | | | | | | | | |
| | | ENG APPR. | | | | | | | | | |
| | | MFG APPR. | | | | | | | | | |
| INTERPRET THIS DRAWING IN ACCORDANCE WITH: ASME Y14.5-2009 | | Q.A. | | | | | | | | | |
| MATERIAL | | COMMENTS: | | | | | | | | | |
| Oak | | | | | | | | | | | |
| FINISH | | | | | | | | | | | |
| DO NOT SCALE DRAWING | | | | | | | | | | | |
| | | | | | | SIZE | DWG. NO. | | REV | | |
| | | | | | | B | 8 | | | | |
| | | | | | | SCALE: 1:2 | | WEIGHT: 0.02 lbs | | SHEET 9 OF 10 | |

