

4

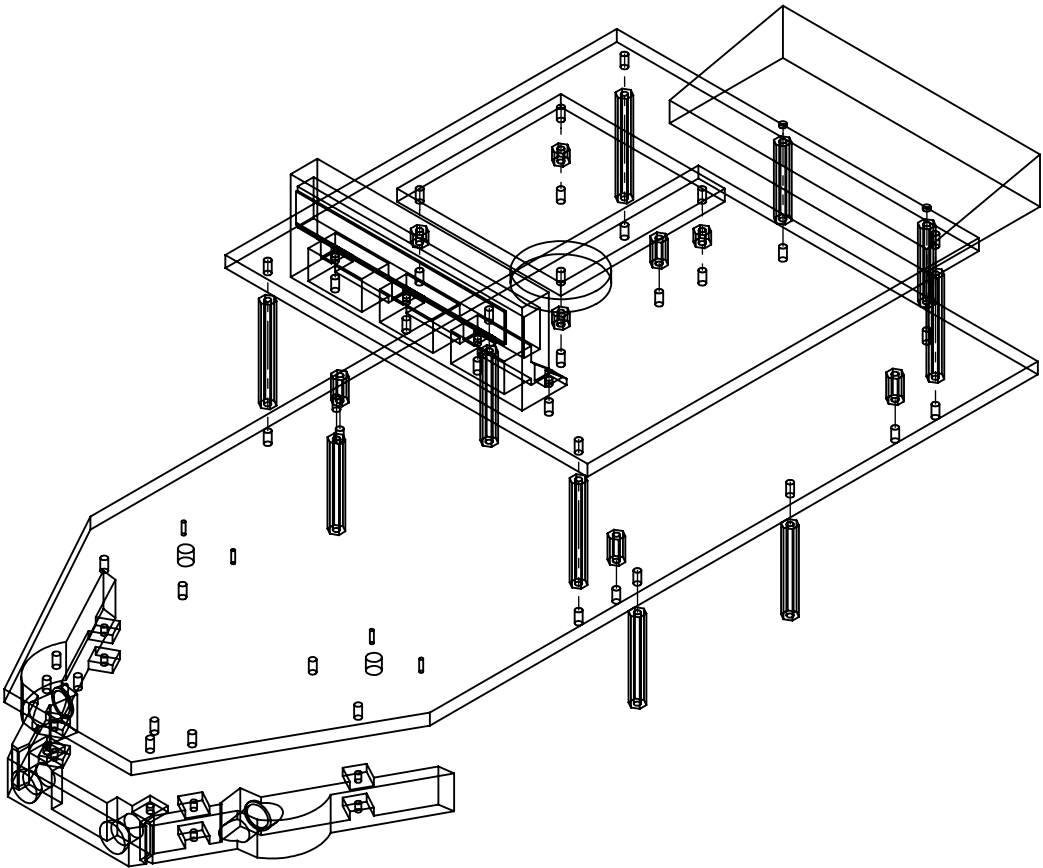
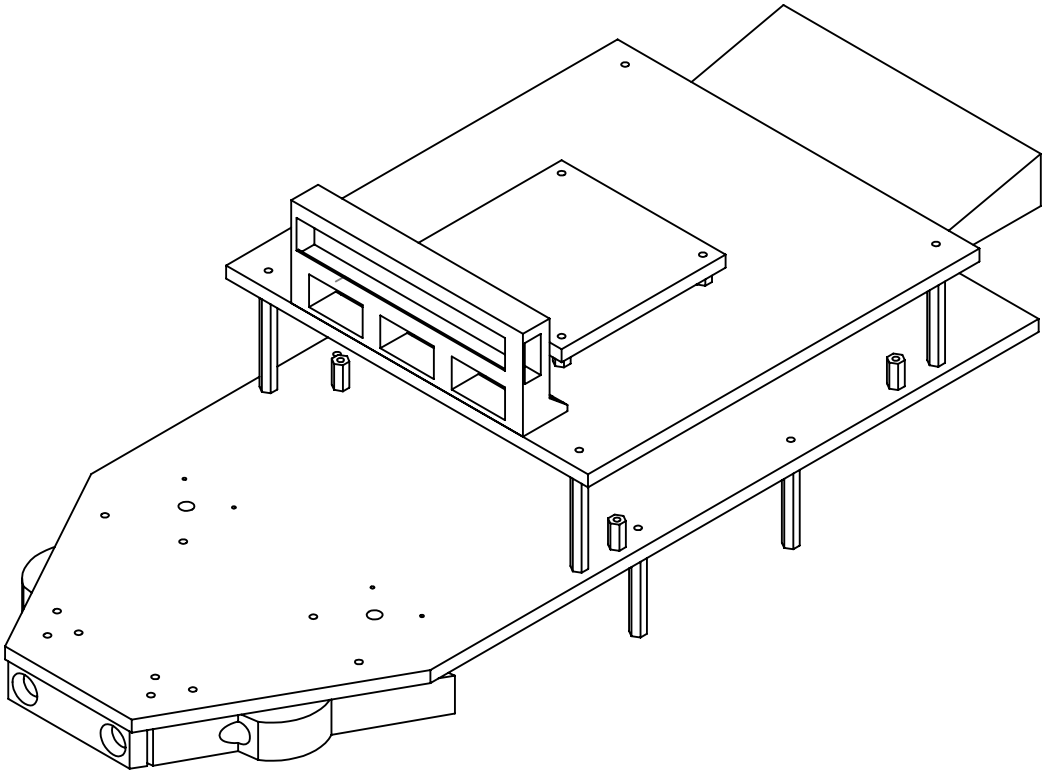
3

2

1

B

B



4

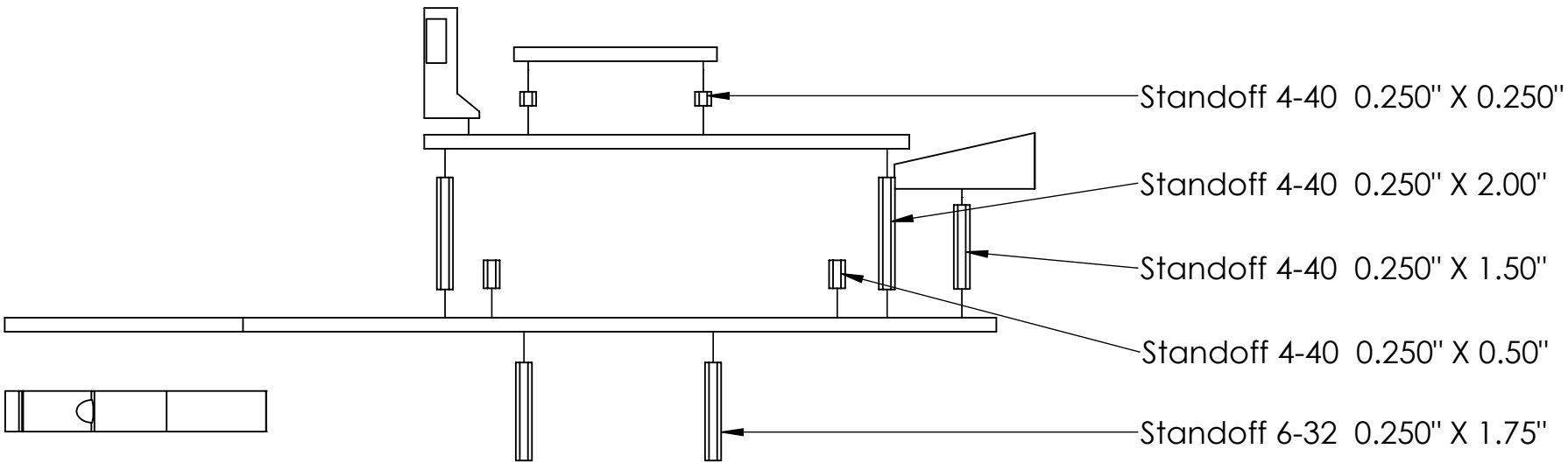
3

2

1

A

A



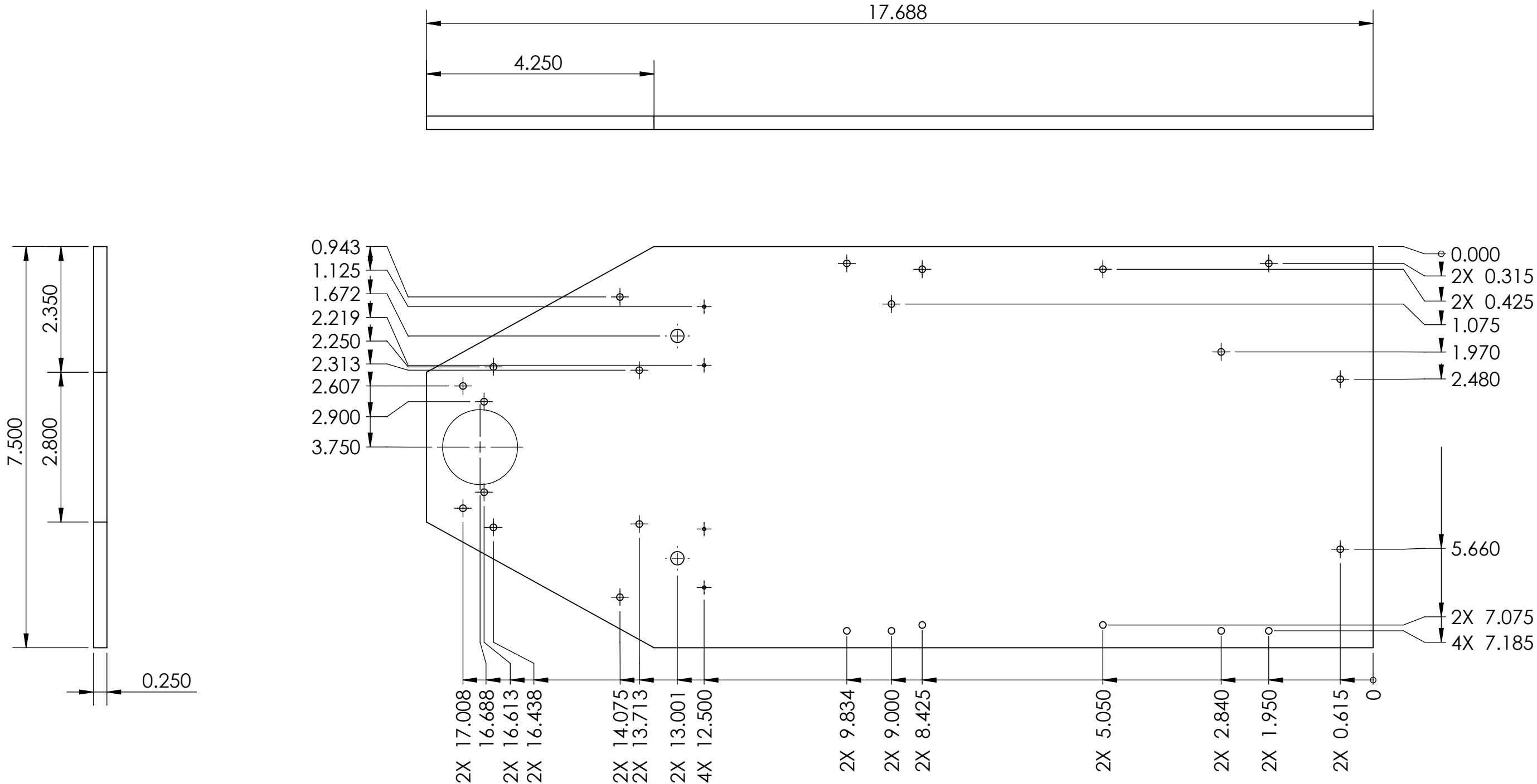
|   |                  |               |      |   |  |  |
|---|------------------|---------------|------|---|--|--|
| UNLESS OTHERWISE SPECIFIED:<br><br>DIMENSIONS ARE IN INCHES<br><br><br>INTERPRET GEOMETRIC TOLERANCING PER:<br>MATERIAL<br>ABS Plastic 1/4" Thick<br>FINISH<br><br>DO NOT SCALE DRAWING |                  | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous Racecar Assembly</b> |  |  |
|   | DRAWN            | Daniel Tobias |      |   |  |  |
|   | CHECKED          |               |      |   |  |  |
|   | ENG APPR.        |               |      |   |  |  |
|   | MFG APPR.        |               |      |   |  |  |
|   | Q.A.             |               |      | COMMENTS:   |  |  |
|   |                  |               |      |   |  |  |
|   | SIZE<br><b>B</b> | DWG. NO.      |      | REV<br><b>A</b>   |  |  |
|   | SCALE 1:3        | WEIGHT:       |      | SHEET 1 OF 10   |  |  |

B

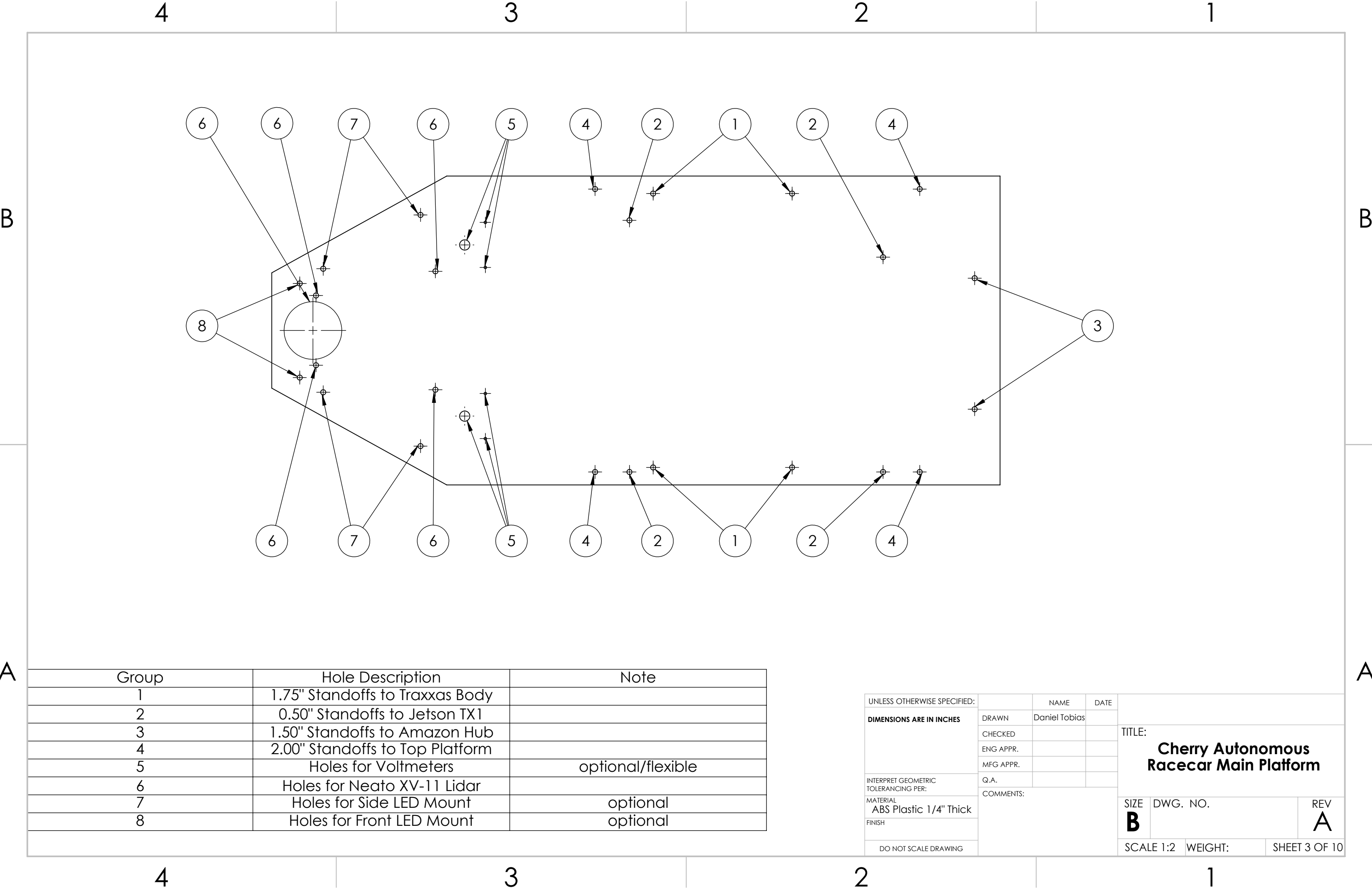
A

B

A



|   |                  |               |      |  |  |  |
|---|------------------|---------------|------|--|--|--|
| UNLESS OTHERWISE SPECIFIED:<br><br><b>DIMENSIONS ARE IN INCHES</b><br>Assume front region is symmetrical across midpoint that runs the length of the car platform<br><br>INTERPRET GEOMETRIC TOLERANCING PER:<br><br>MATERIAL<br>ABS Plastic 1/4" Thick<br><br>FINISH<br><br><br>DO NOT SCALE DRAWING |                  | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous Racecar Main Platform</b> |  |  |
|   | DRAWN            | Daniel Tobias |      |  |  |  |
|   | CHECKED          |               |      |  |  |  |
|   | ENG APPR.        |               |      |  |  |  |
|   | MFG APPR.        |               |      |  |  |  |
|   | Q.A.             |               |      | COMMENTS:  |  |  |
|   |                  |               |      |  |  |  |
|   | SIZE<br><b>B</b> | DWG. NO.      |      | REV<br><b>A</b>  |  |  |
|   | SCALE 1:2        | WEIGHT:       |      | SHEET 2 OF 10  |  |  |



A

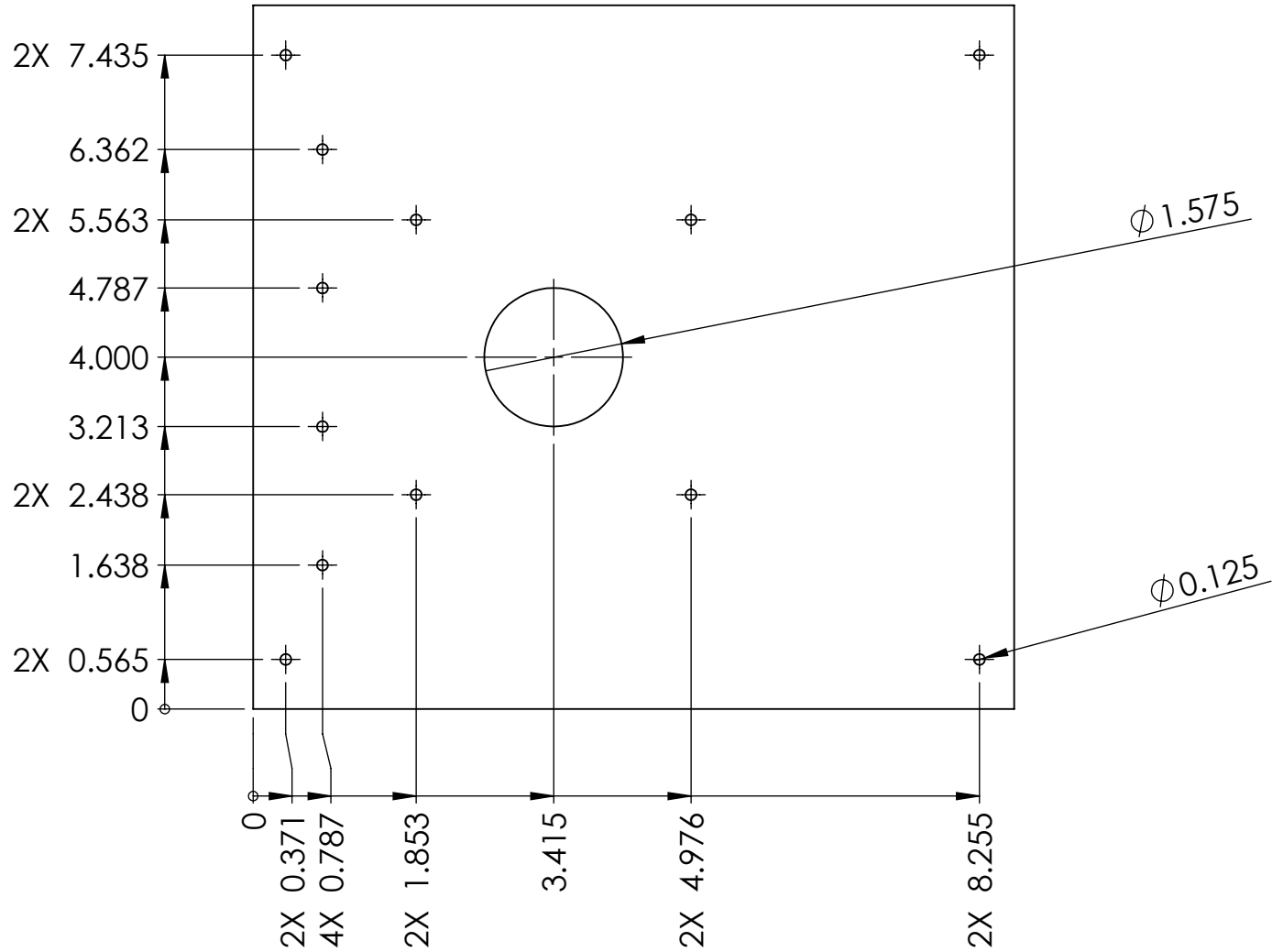
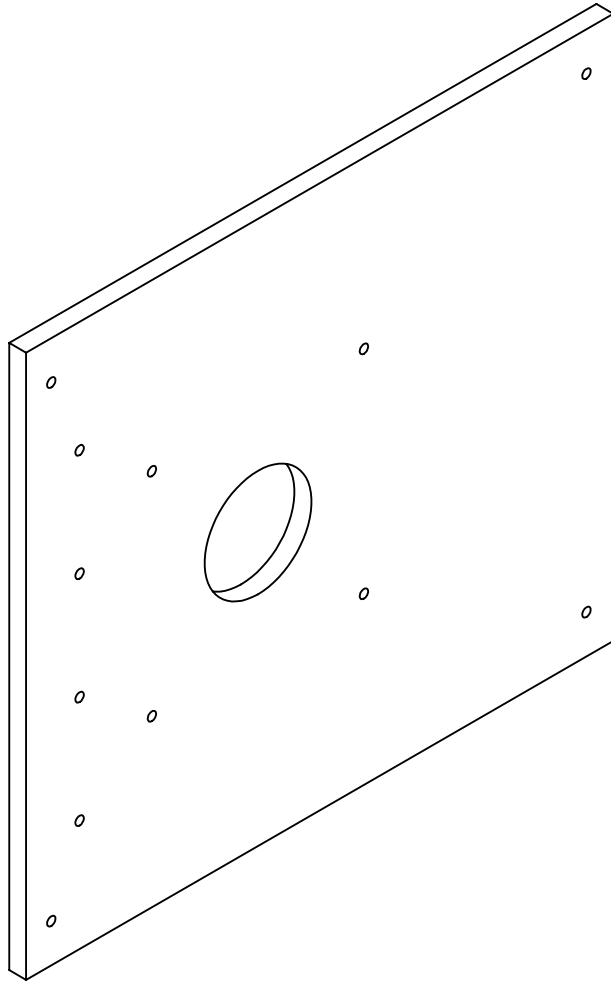
A

B

B

| Group | Hole Description                | Note              |
|-------|---------------------------------|-------------------|
| 1     | 1.75" Standoffs to Traxxas Body |                   |
| 2     | 0.50" Standoffs to Jetson TX1   |                   |
| 3     | 1.50" Standoffs to Amazon Hub   |                   |
| 4     | 2.00" Standoffs to Top Platform |                   |
| 5     | Holes for Voltmeters            | optional/flexible |
| 6     | Holes for Neato XV-11 Lidar     |                   |
| 7     | Holes for Side LED Mount        | optional          |
| 8     | Holes for Front LED Mount       | optional          |

|                                      |           |               |      |  |         |               |
|--------------------------------------|-----------|---------------|------|--|---------|---------------|
| UNLESS OTHERWISE SPECIFIED:          |           | NAME          | DATE | <div>TITLE:</div> <div>Cherry Autonomous Racecar Main Platform</div>         |         |               |
| DIMENSIONS ARE IN INCHES             | DRAWN     | Daniel Tobias |      |  |         |               |
|                                      | CHECKED   |               |      |  |         |               |
|                                      | ENG APPR. |               |      |  |         |               |
|                                      | MFG APPR. |               |      |  |         |               |
| INTERPRET GEOMETRIC TOLERANCING PER: | Q.A.      |               |      | <div>SIZE</div> <div>B</div> <div>DWG. NO.</div> <div>REV</div> <div>A</div> |         |               |
| MATERIAL                             | COMMENTS: |               |      |  |         |               |
| ABS Plastic 1/4" Thick               |           |               |      |  |         |               |
| FINISH                               |           |               |      |  |         |               |
| DO NOT SCALE DRAWING                 |           | SCALE 1:2     |      |  | WEIGHT: | SHEET 3 OF 10 |



|   |           |               |      |   |         |               |
|---|-----------|---------------|------|---|---------|---------------|
| UNLESS OTHERWISE SPECIFIED:             |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Top Platform</b>                         |         |               |
| DIMENSIONS ARE IN INCHES                | DRAWN     | Daniel Tobias |      |   |         |               |
|   | CHECKED   |               |      |   |         |               |
|   | ENG APPR. |               |      |   |         |               |
|   | MFG APPR. |               |      |   |         |               |
| INTERPRET GEOMETRIC<br>TOLERANCING PER: | Q.A.      |               |      | SIZE<br><b>B</b><br><br>DWG. NO.<br><br><br><br><br><br><br><br><br><br>REV<br><b>A</b> |         |               |
| MATERIAL<br>ABS Plastic 1/4" Thick      | COMMENTS: |               |      |   |         |               |
| FINISH                                  |           |               |      |   |         |               |
|   |           |               |      |   |         |               |
|   |           |               |      |   |         |               |
| DO NOT SCALE DRAWING                    |           | SCALE 1:3     |      |   | WEIGHT: | SHEET 4 OF 10 |

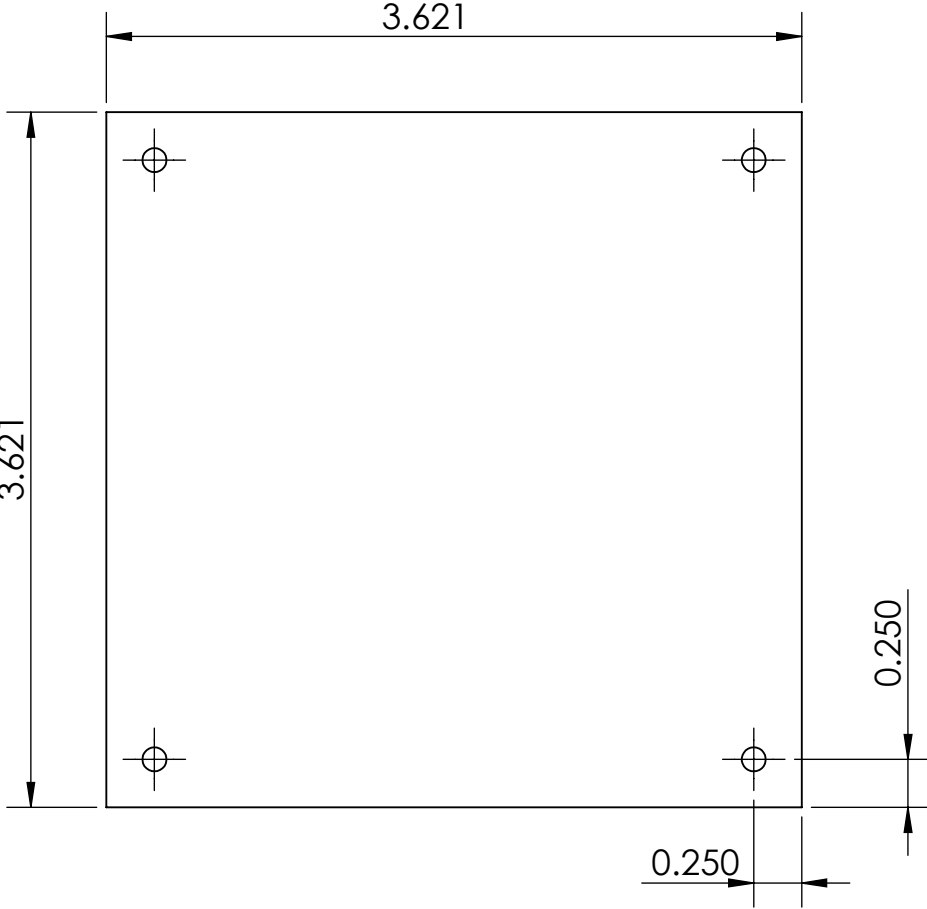
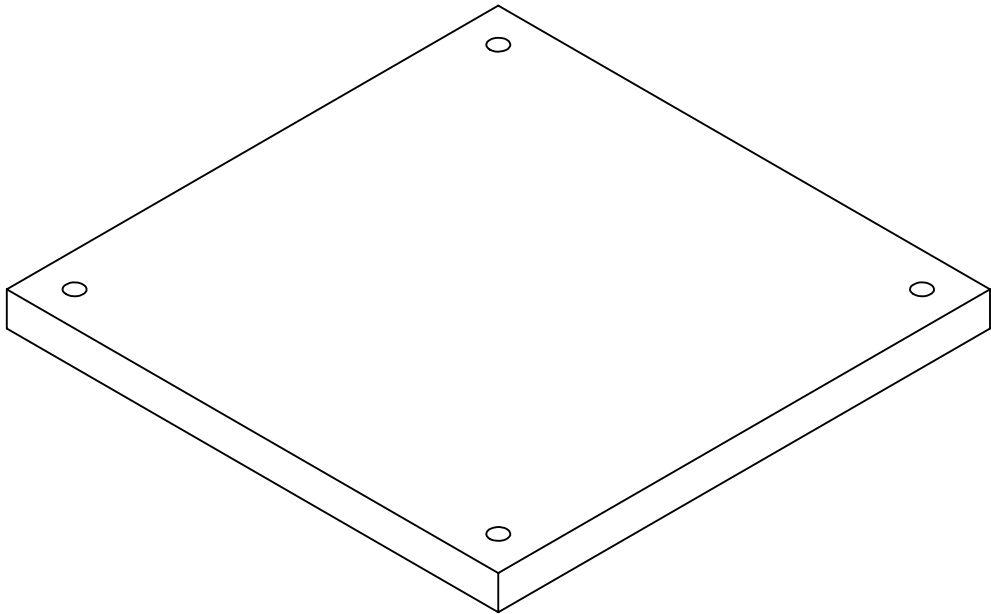
4

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B



B

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A

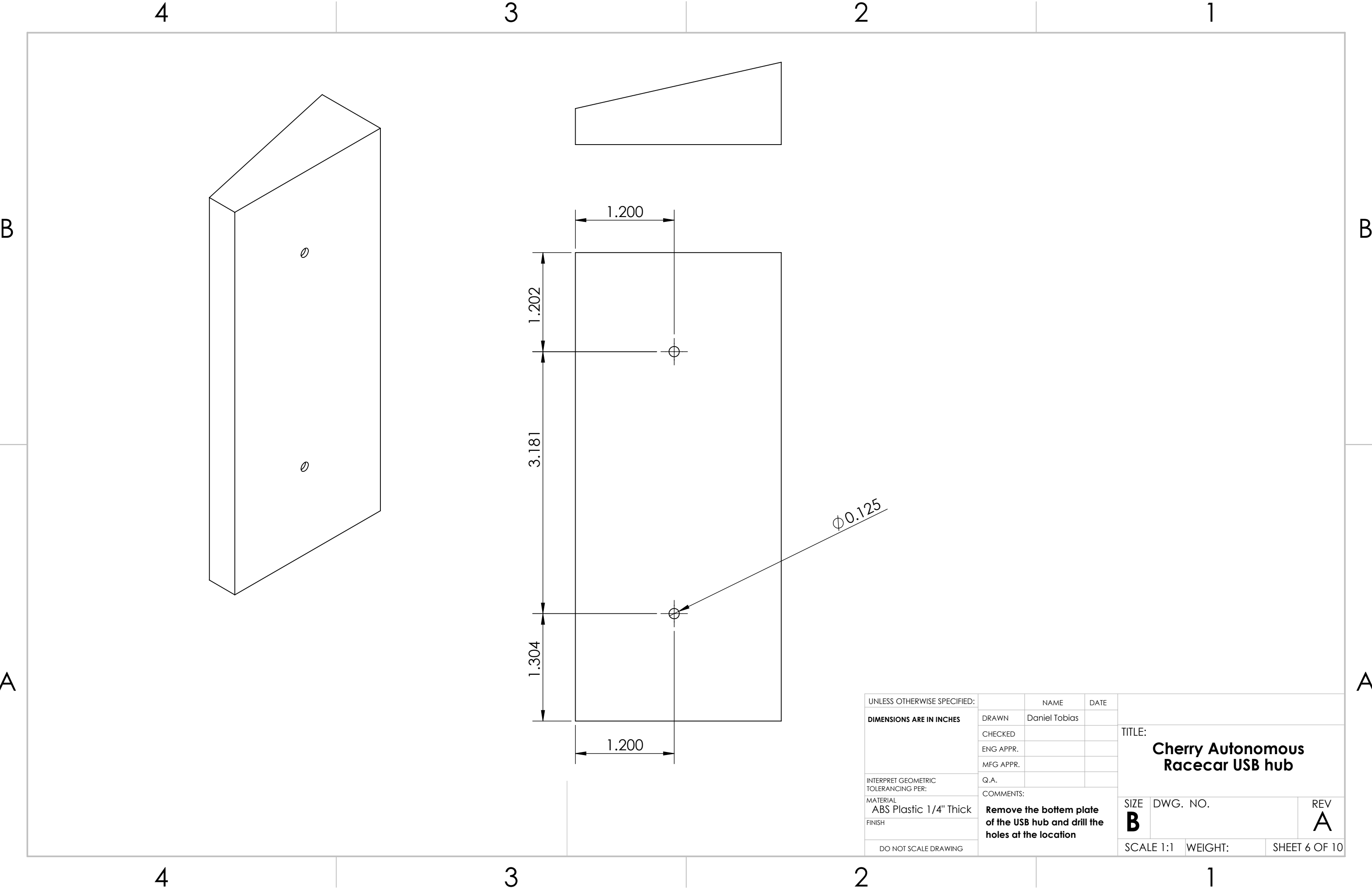
|   |           |               |      |  |         |               |
|---|-----------|---------------|------|--|---------|---------------|
| UNLESS OTHERWISE SPECIFIED:             |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Webcam Platform</b> |         |               |
| DIMENSIONS ARE IN INCHES                | DRAWN     | Daniel Tobias |      |  |         |               |
|   | CHECKED   |               |      |  |         |               |
|   | ENG APPR. |               |      |  |         |               |
|   | MFG APPR. |               |      |  |         |               |
| INTERPRET GEOMETRIC<br>TOLERANCING PER: | Q.A.      |               |      | SIZE<br><b>B</b>   |         |               |
| MATERIAL<br>ABS Plastic 1/4" Thick      | COMMENTS: |               |      |  |         |               |
| FINISH                                  |           |               |      |  |         |               |
| DO NOT SCALE DRAWING                    |           |               |      | SCALE 1:1  | WEIGHT: | SHEET 5 OF 10 |
|   |           |               |      | REV<br><b>A</b>  |         |               |

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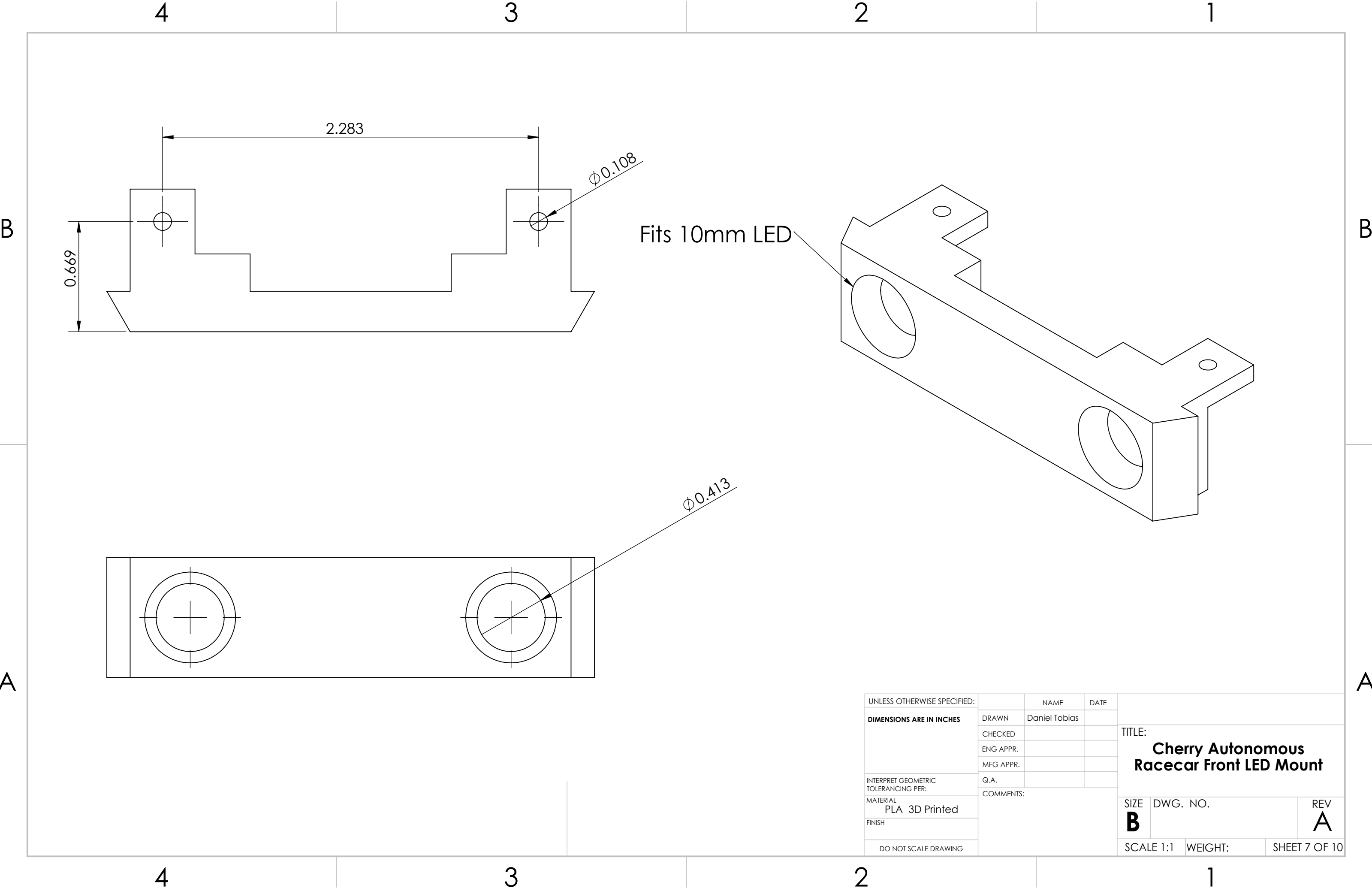
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|                                      |           |               |      |  |          |                 |  |  |  |
|--------------------------------------|-----------|---------------|------|--|----------|-----------------|--|--|--|
| UNLESS OTHERWISE SPECIFIED:          |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar USB hub</b>   |          |                 |  |  |  |
| DIMENSIONS ARE IN INCHES             | DRAWN     | Daniel Tobias |      |  |          |                 |  |  |  |
|                                      | CHECKED   |               |      |  |          |                 |  |  |  |
|                                      | ENG APPR. |               |      |  |          |                 |  |  |  |
|                                      | MFG APPR. |               |      |  |          |                 |  |  |  |
| INTERPRET GEOMETRIC TOLERANCING PER: | Q.A.      |               |      | COMMENTS:<br><br><b>Remove the bottem plate<br/>of the USB hub and drill the<br/>holes at the location</b> |          |                 |  |  |  |
| MATERIAL<br>ABS Plastic 1/4" Thick   |           |               |      |  |          |                 |  |  |  |
| FINISH                               |           |               |      |  |          |                 |  |  |  |
| DO NOT SCALE DRAWING                 |           |               |      | SIZE<br><b>B</b>   | DWG. NO. | REV<br><b>A</b> |  |  |  |
|                                      |           |               |      | SCALE 1:1  | WEIGHT:  | SHEET 6 OF 10   |  |  |  |



|  |           |               |      |  |          |                 |
|--|-----------|---------------|------|--|----------|-----------------|
| UNLESS OTHERWISE SPECIFIED:<br><br><b>DIMENSIONS ARE IN INCHES</b> |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Front LED Mount</b> |          |                 |
|  | DRAWN     | Daniel Tobias |      |  |          |                 |
|  | CHECKED   |               |      |  |          |                 |
|  | ENG APPR. |               |      |  |          |                 |
|  | MFG APPR. |               |      |  |          |                 |
| INTERPRET GEOMETRIC<br>TOLERANCING PER:                            | Q.A.      |               |      | COMMENTS:  |          |                 |
| MATERIAL<br>PLA 3D Printed   |           |               |      |  |          |                 |
| FINISH   |           |               |      |  |          |                 |
| DO NOT SCALE DRAWING   |           |               |      | SIZE<br><b>B</b>   | DWG. NO. | REV<br><b>A</b> |
|  |           |               |      | SCALE 1:1  | WEIGHT:  | SHEET 7 OF 10   |

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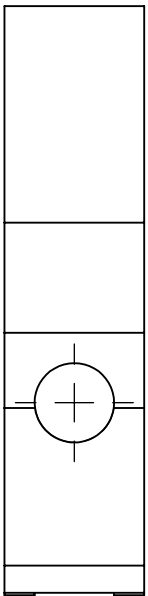
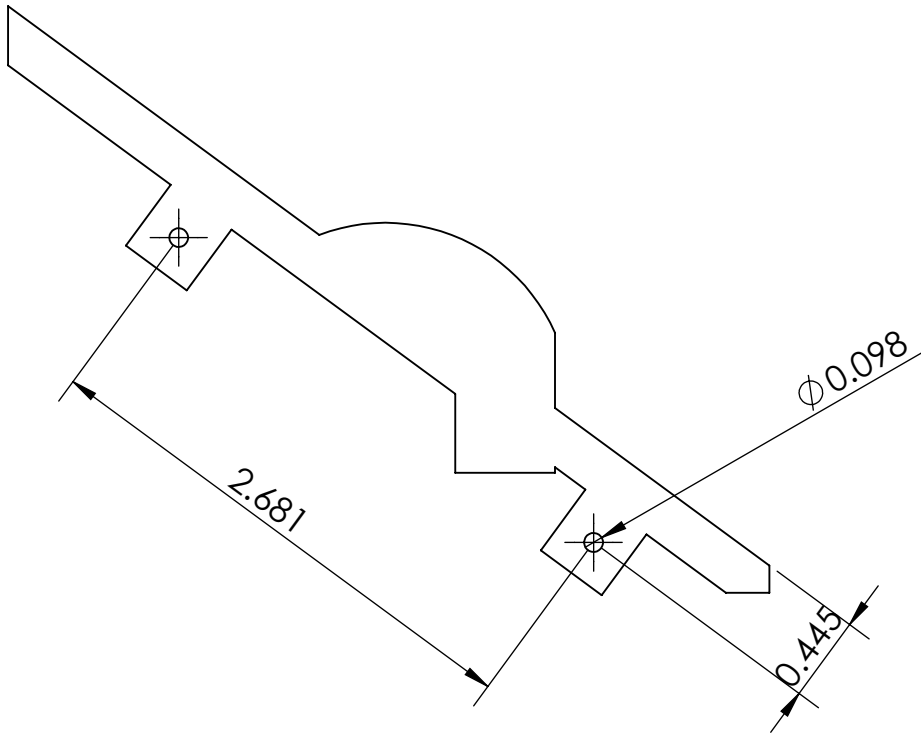
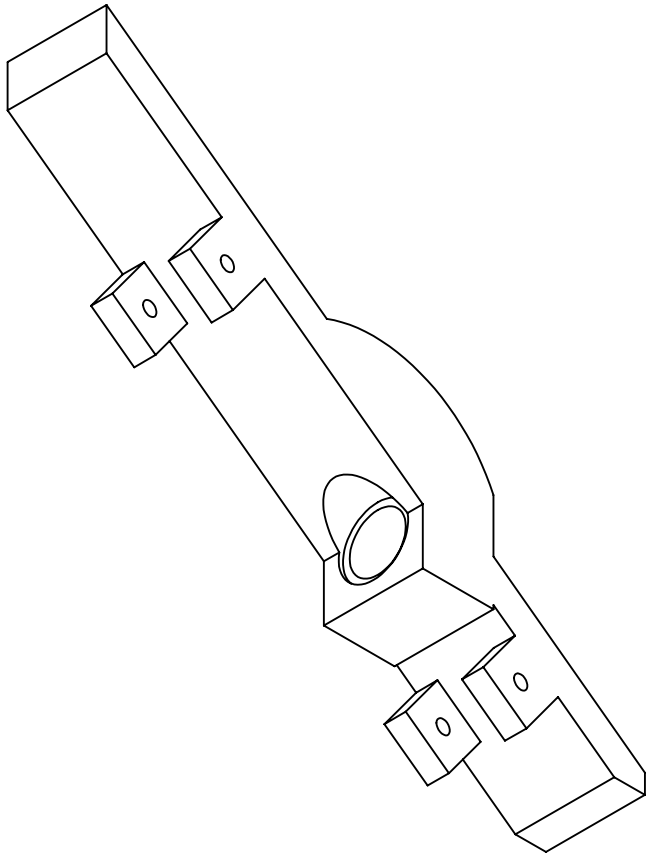
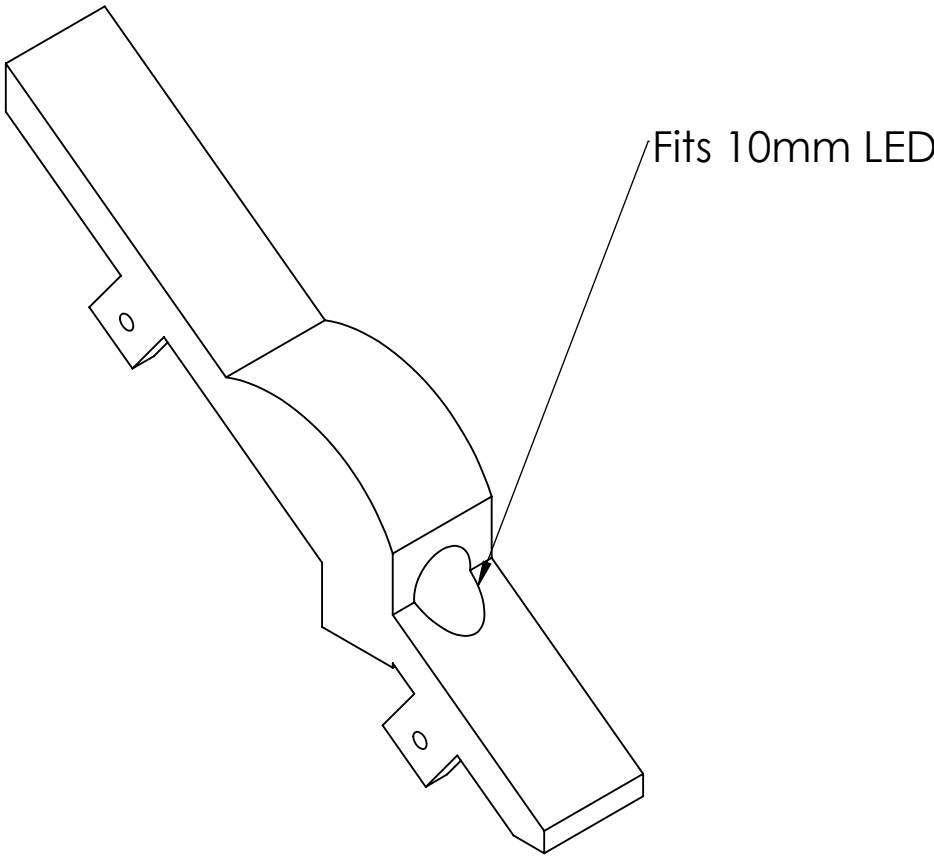
1

B

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|   |           |               |      |   |  |               |
|---|-----------|---------------|------|---|--|---------------|
| UNLESS OTHERWISE SPECIFIED:   |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Side LED Mount</b> |  |               |
| <b>DIMENSIONS ARE IN INCHES</b><br><br><b>Holes Intentionally smaller to<br/>compensate for 3D Printing</b> | DRAWN     | Daniel Tobias |      |   |  |               |
|   | CHECKED   |               |      |   |  |               |
|   | ENG APPR. |               |      |   |  |               |
|   | MFG APPR. |               |      |   |  |               |
| INTERPRET GEOMETRIC<br>TOLERANCING PER:   | Q.A.      |               |      | COMMENTS:   |  |               |
| MATERIAL<br><br>PLA 3D Printed  |           |               |      |   |  |               |
| FINISH  |           |               |      |   |  |               |
| DO NOT SCALE DRAWING  |           |               |      |   |  |               |
| SIZE  |           |               |      | DWG. NO.  |  | REV           |
| <b>B</b>  |           |               |      |   |  | <b>A</b>      |
| SCALE 1:1   |           |               |      | WEIGHT:   |  | SHEET 8 OF 10 |

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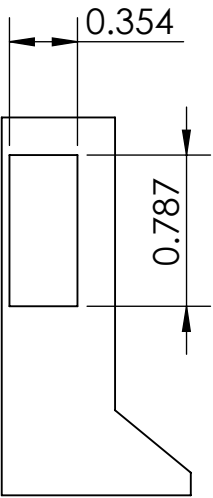
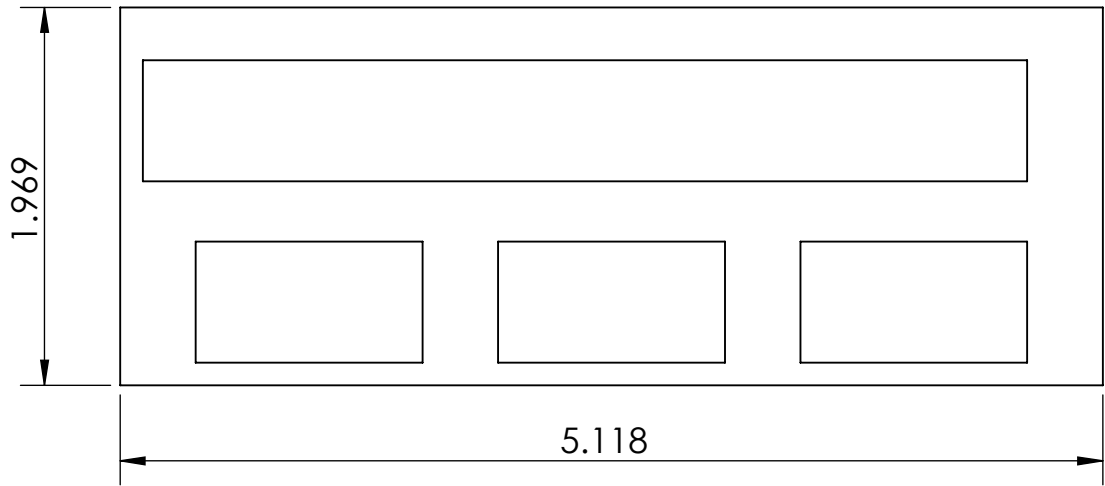
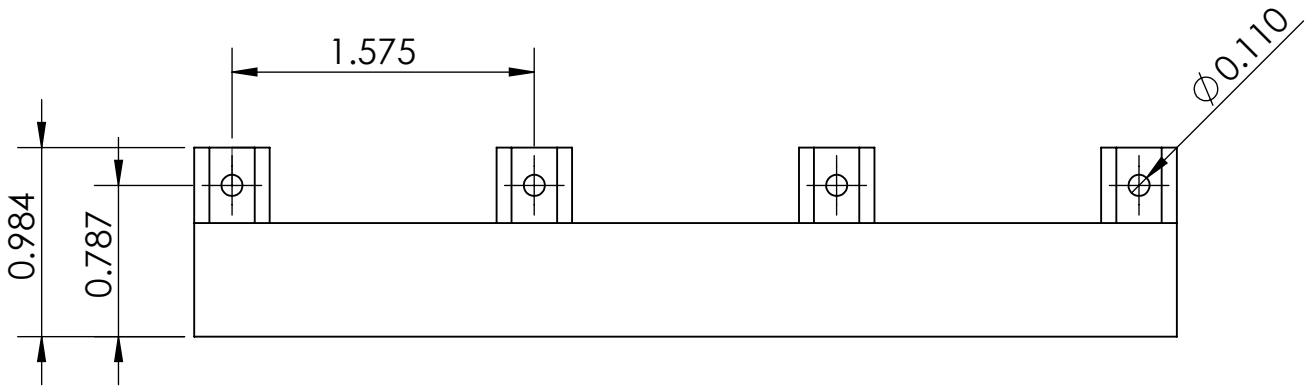
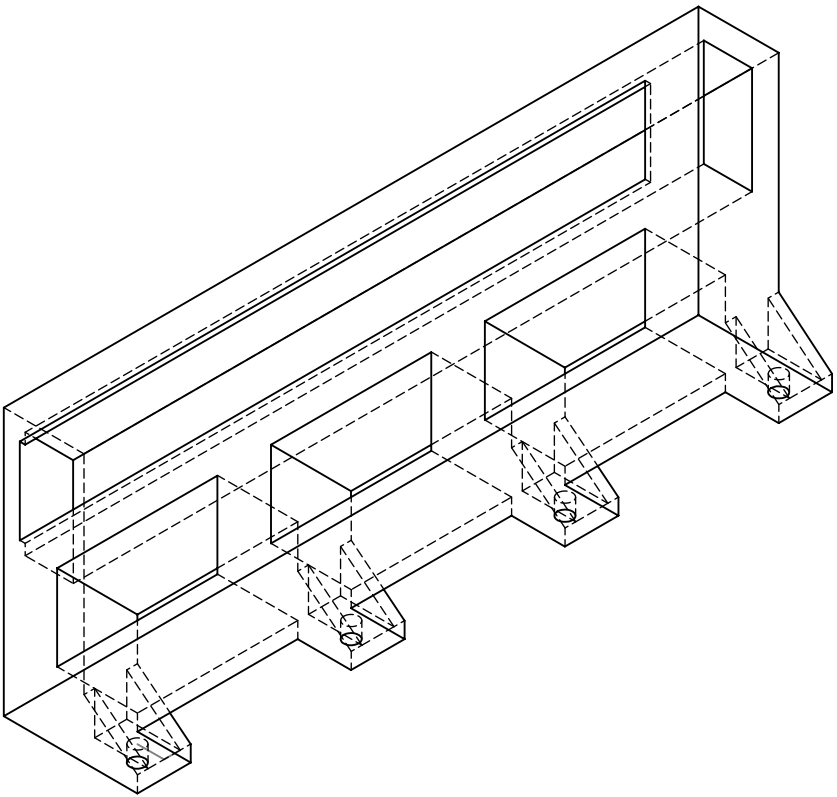
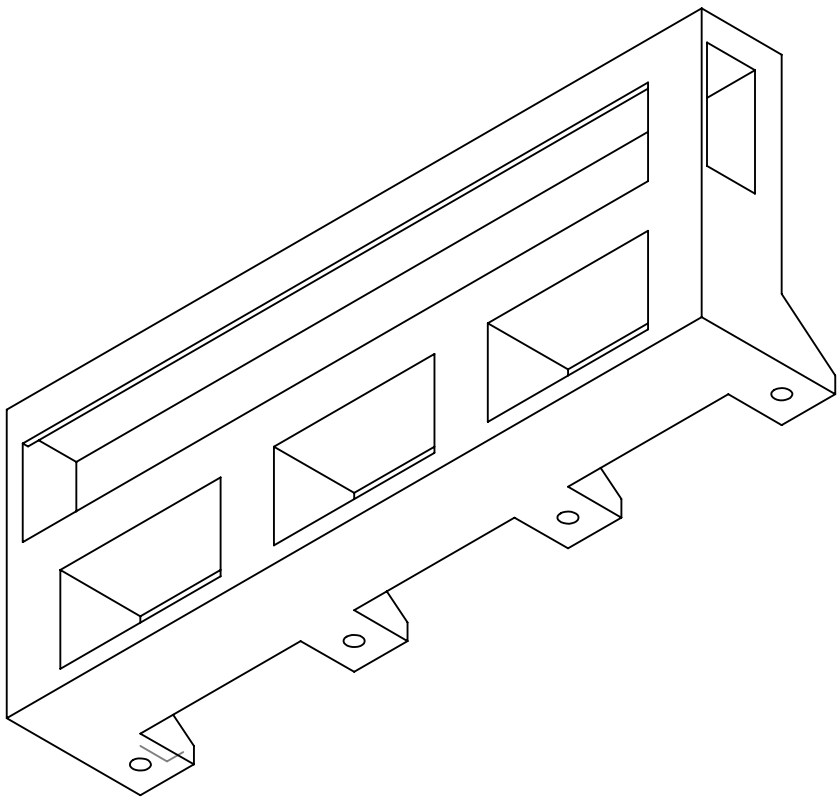


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|   |           |               |      |   |          |  |               |
|---|-----------|---------------|------|---|----------|--|---------------|
| UNLESS OTHERWISE SPECIFIED:             |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Intel RealSense<br/>R200 Mount</b> |          |  |               |
| DIMENSIONS ARE IN INCHES                | DRAWN     | Daniel Tobias |      |   |          |  |               |
|   | CHECKED   |               |      |   |          |  |               |
|   | ENG APPR. |               |      |   |          |  |               |
|   | MFG APPR. |               |      |   |          |  |               |
| INTERPRET GEOMETRIC<br>TOLERANCING PER: | Q.A.      |               |      | REV<br><b>A</b>   |          |  |               |
| MATERIAL<br>PLA 3D Printed              | COMMENTS: |               |      |   |          |  |               |
| FINISH                                  |           |               |      | SIZE<br><b>B</b>  | DWG. NO. |  |               |
| DO NOT SCALE DRAWING                    |           |               |      | SCALE 1:1   | WEIGHT:  |  | SHEET 9 OF 10 |

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