

4

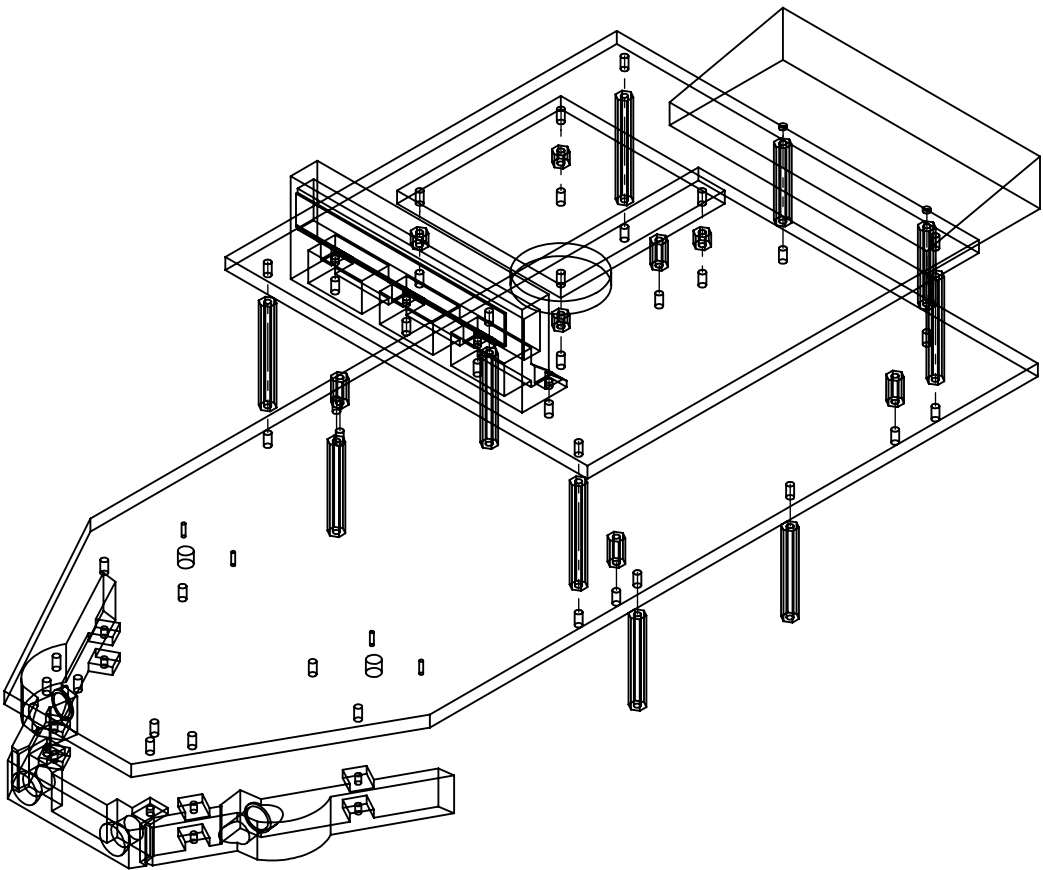
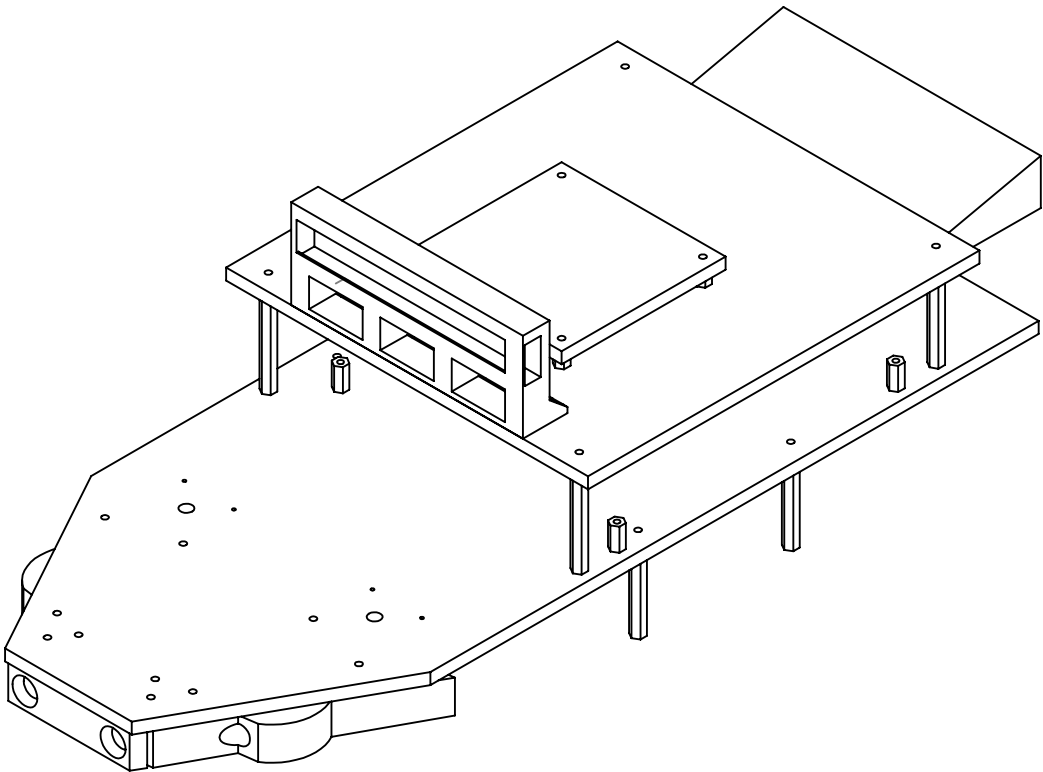
3

2

1

B

B



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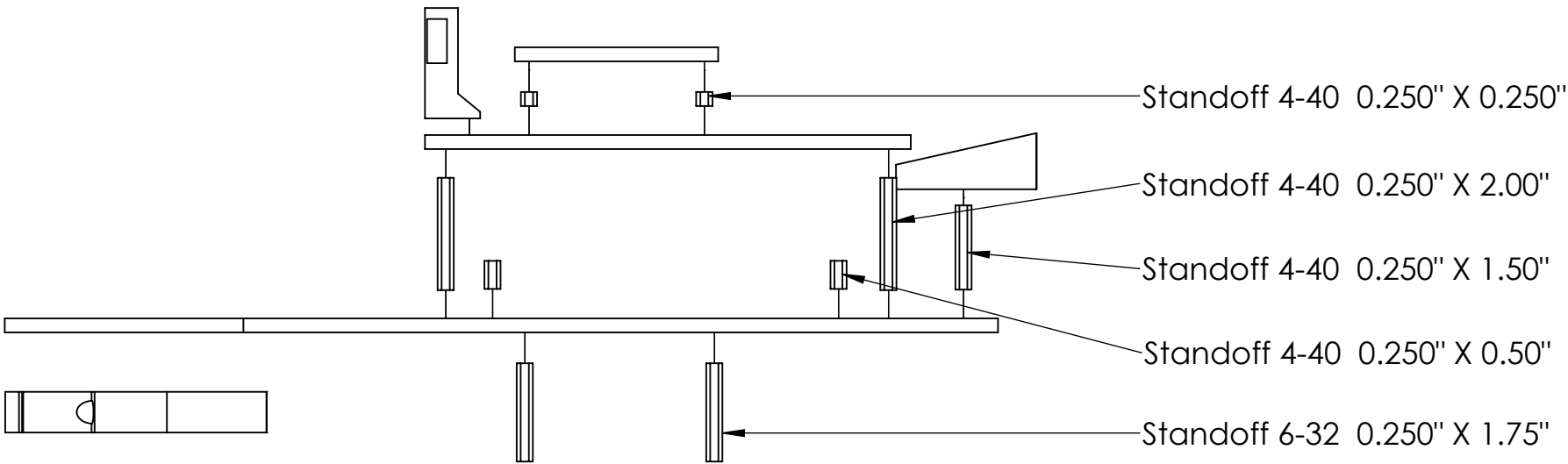
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2

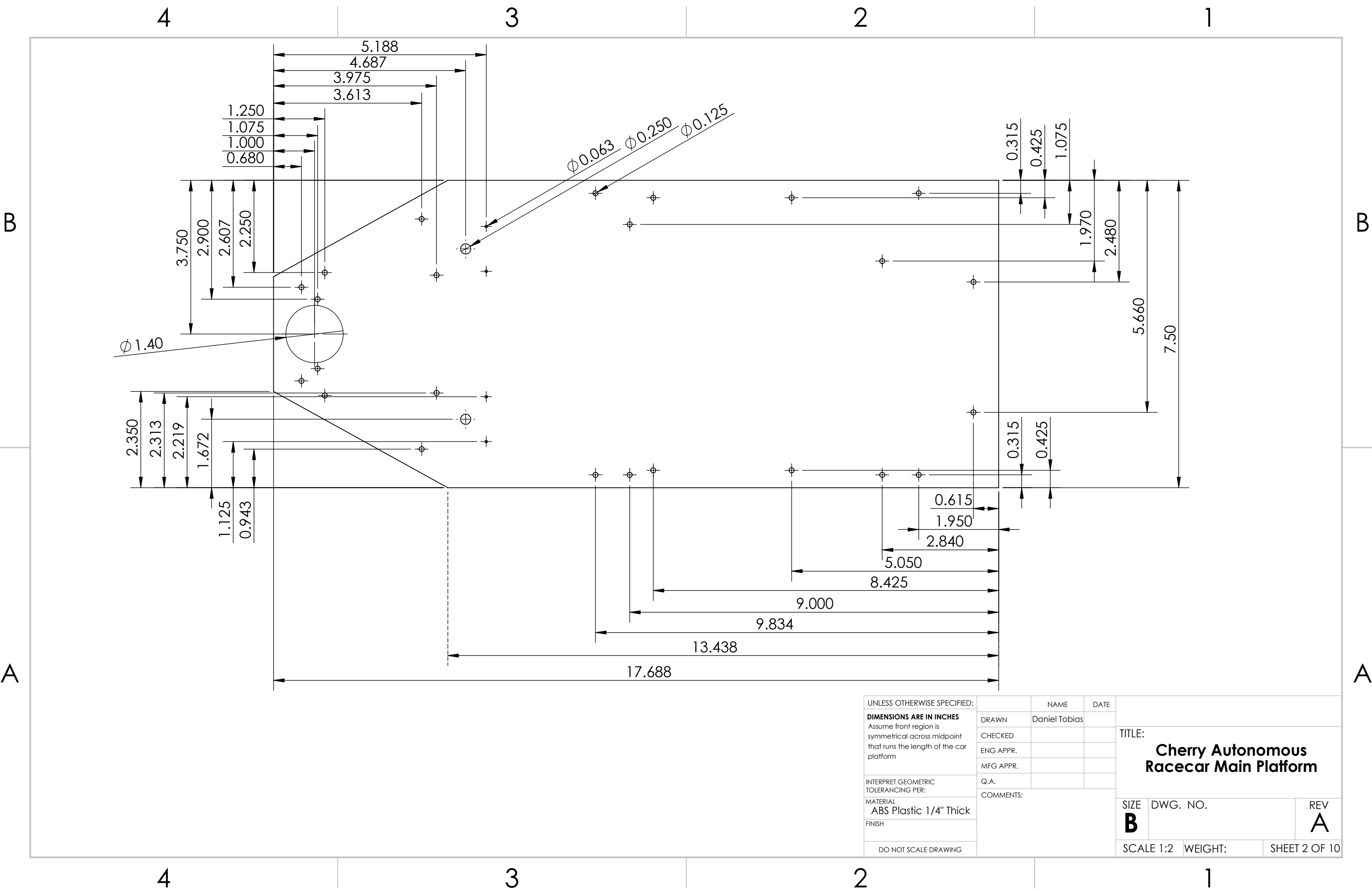
1

A

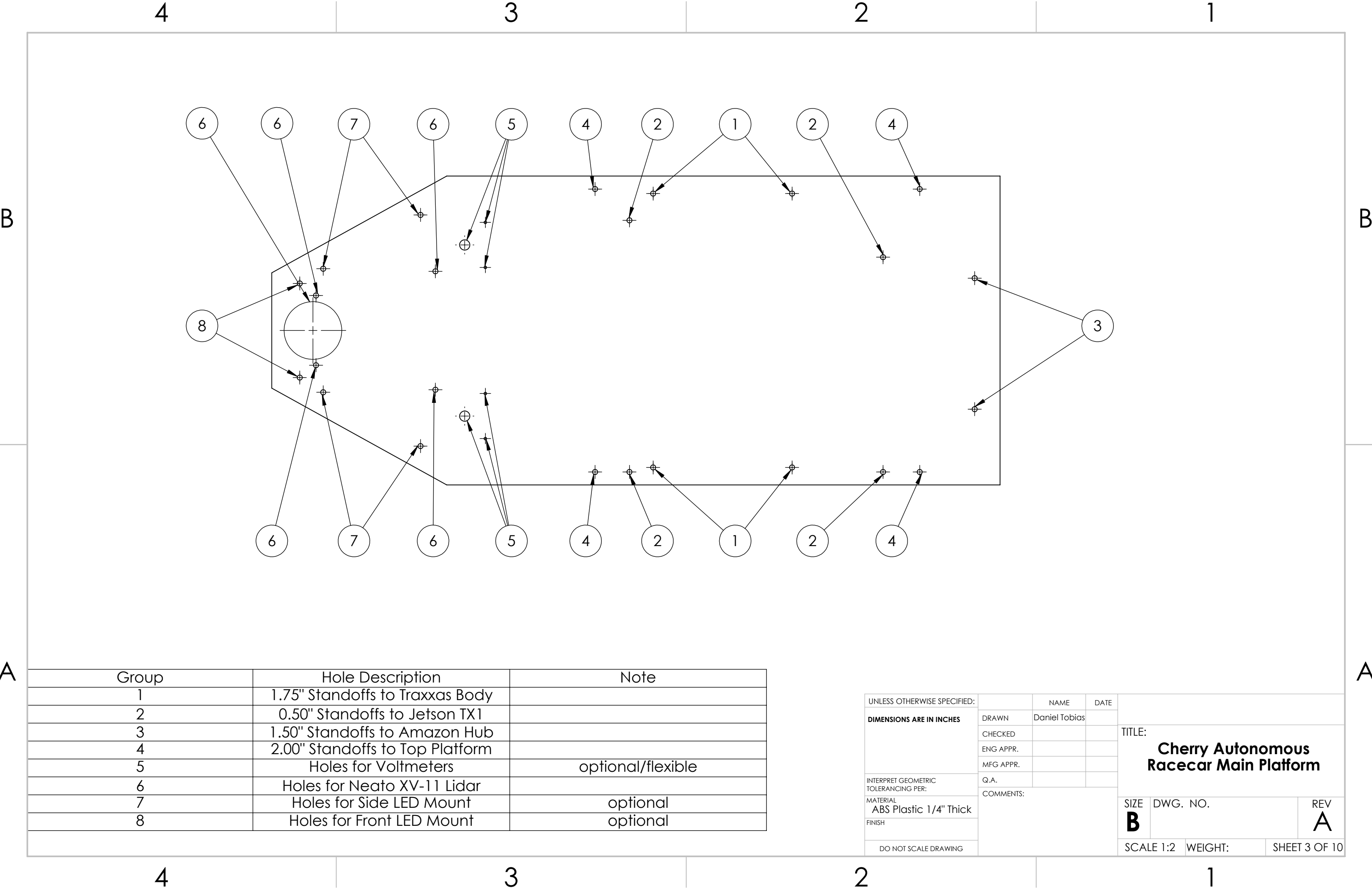
A



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

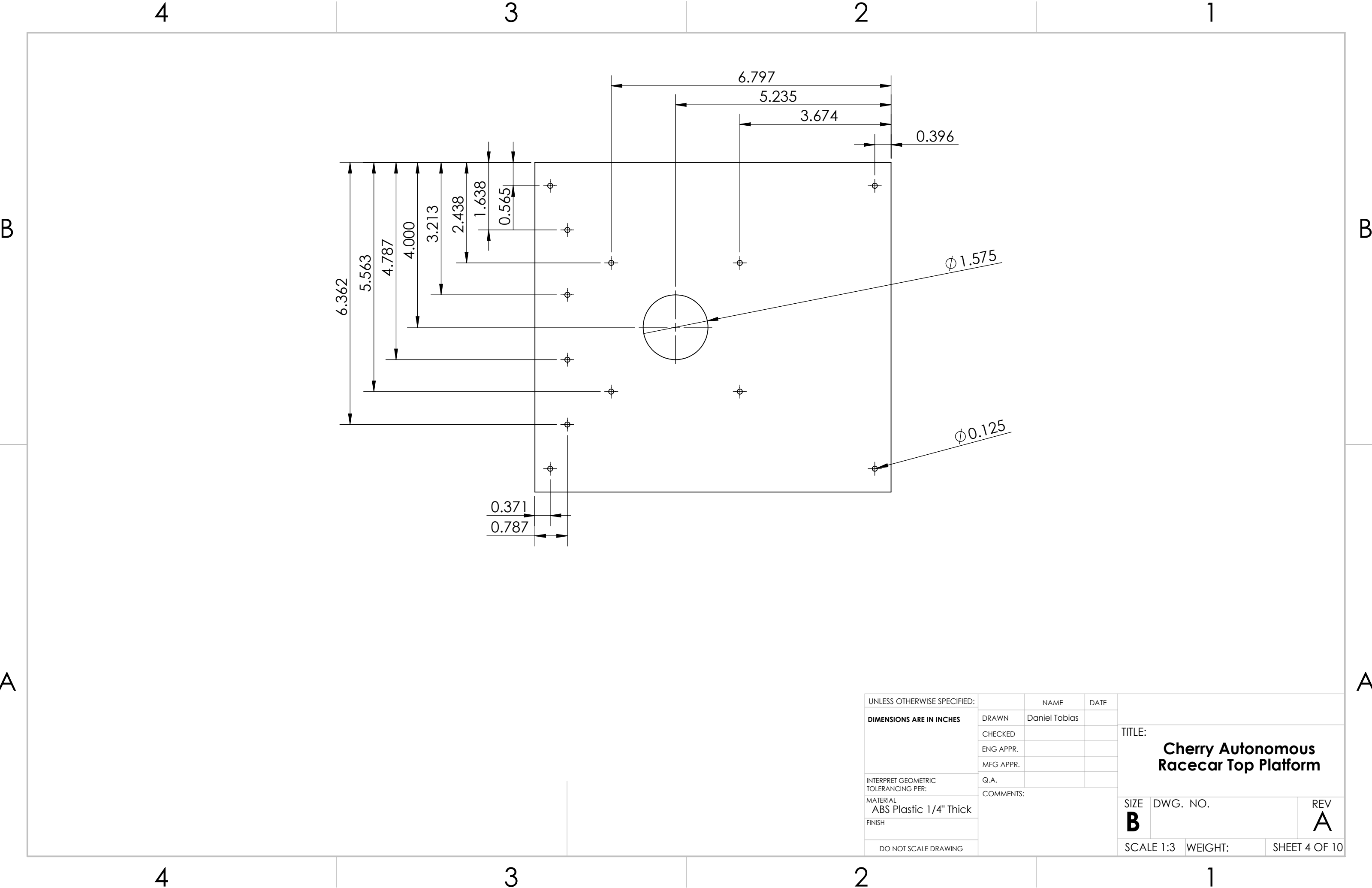


|  |  |           |               |      |  |  |           |           |  |          |  |               |  |
|--|--|-----------|---------------|------|--|--|-----------|-----------|--|----------|--|---------------|--|
| UNLESS OTHERWISE SPECIFIED:  |  | NAME      |               | DATE |  | <div>TITLE: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



| 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.      |               |          | COMMENTS:  |               |  |
| MATERIAL                             |           |               |          |  |               |  |
| ABS Plastic 1/4" Thick               |           |               |          |  |               |  |
| FINISH                               |           |               |          |  |               |  |
| DO NOT SCALE DRAWING                 |           |               |          |  |               |  |
|                                      |           | SIZE          | DWG. NO. |  | REV           |  |
|                                      |           | B             |          |  | A             |  |
|                                      |           | 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.      |               |      | COMMENTS:   |          |               |
| MATERIAL                                |           |               |      |   |          |               |
| ABS Plastic 1/4" Thick                  |           |               |      |   |          |               |
| FINISH                                  |           |               |      | SIZE  | DWG. NO. | REV           |
|   |           |               |      | <b>B</b>  |          | <b>A</b>      |
| DO NOT SCALE DRAWING                    |           |               |      | SCALE 1:3   | WEIGHT:  | SHEET 4 OF 10 |

4

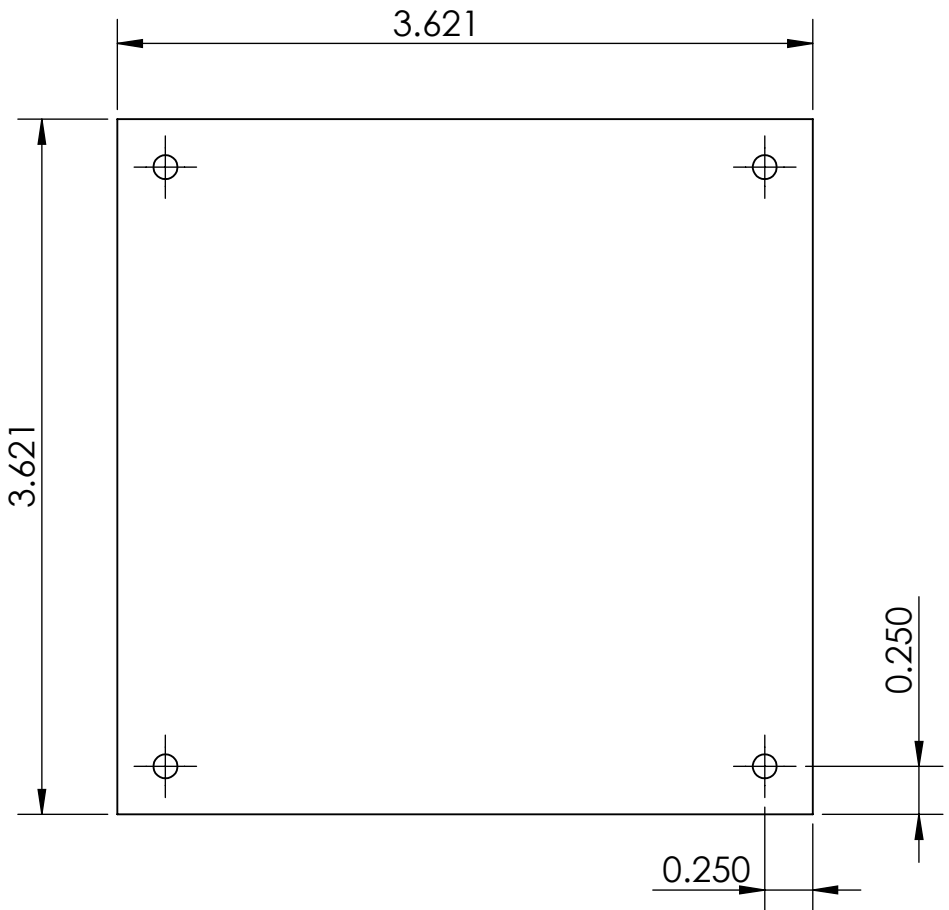
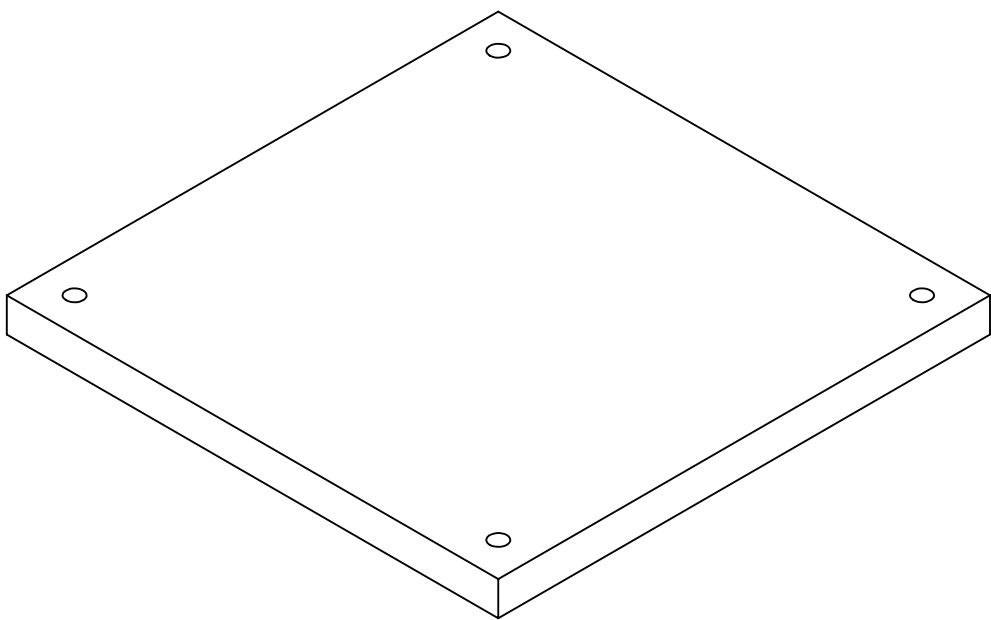
3

2

1

B

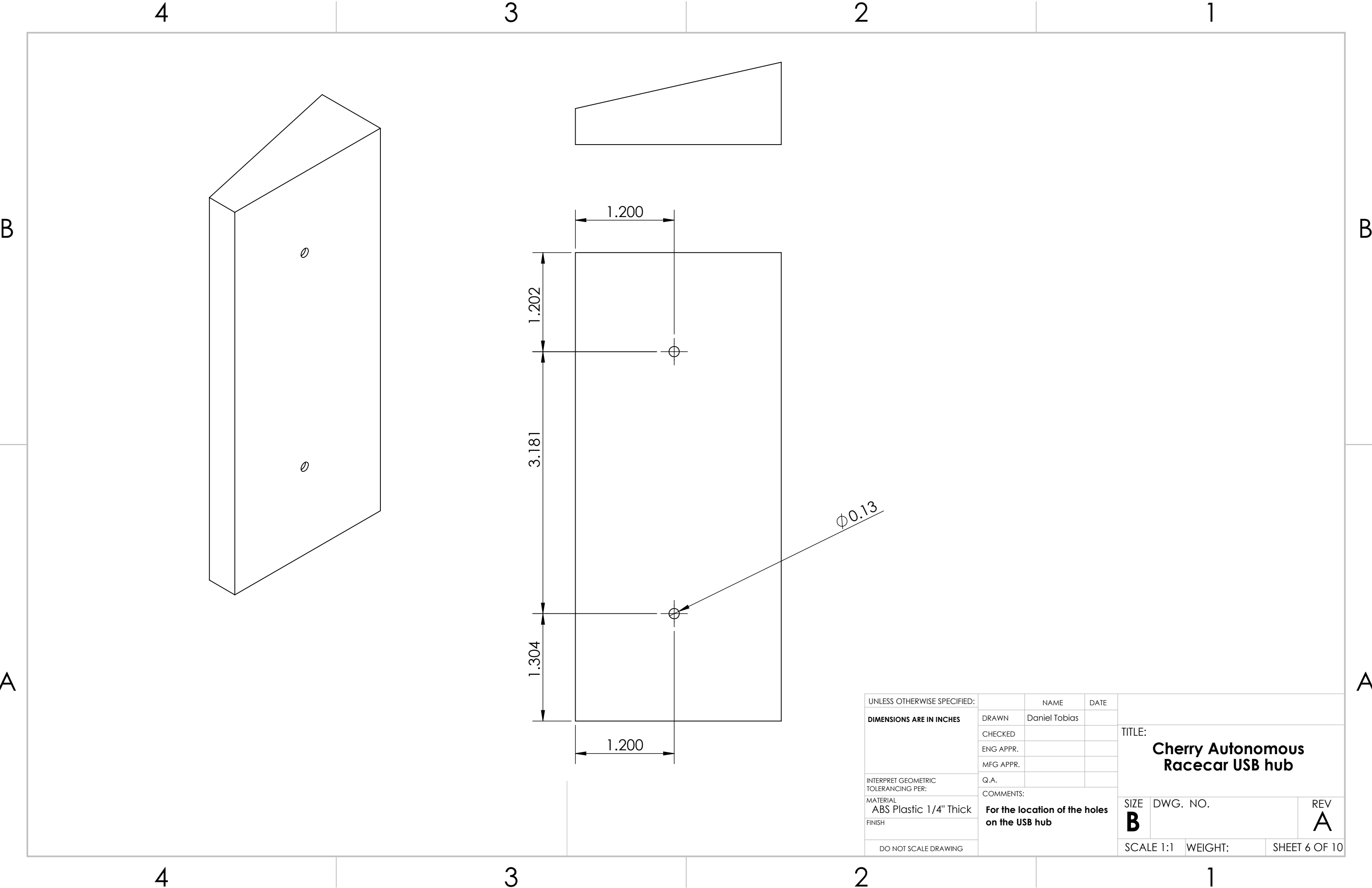
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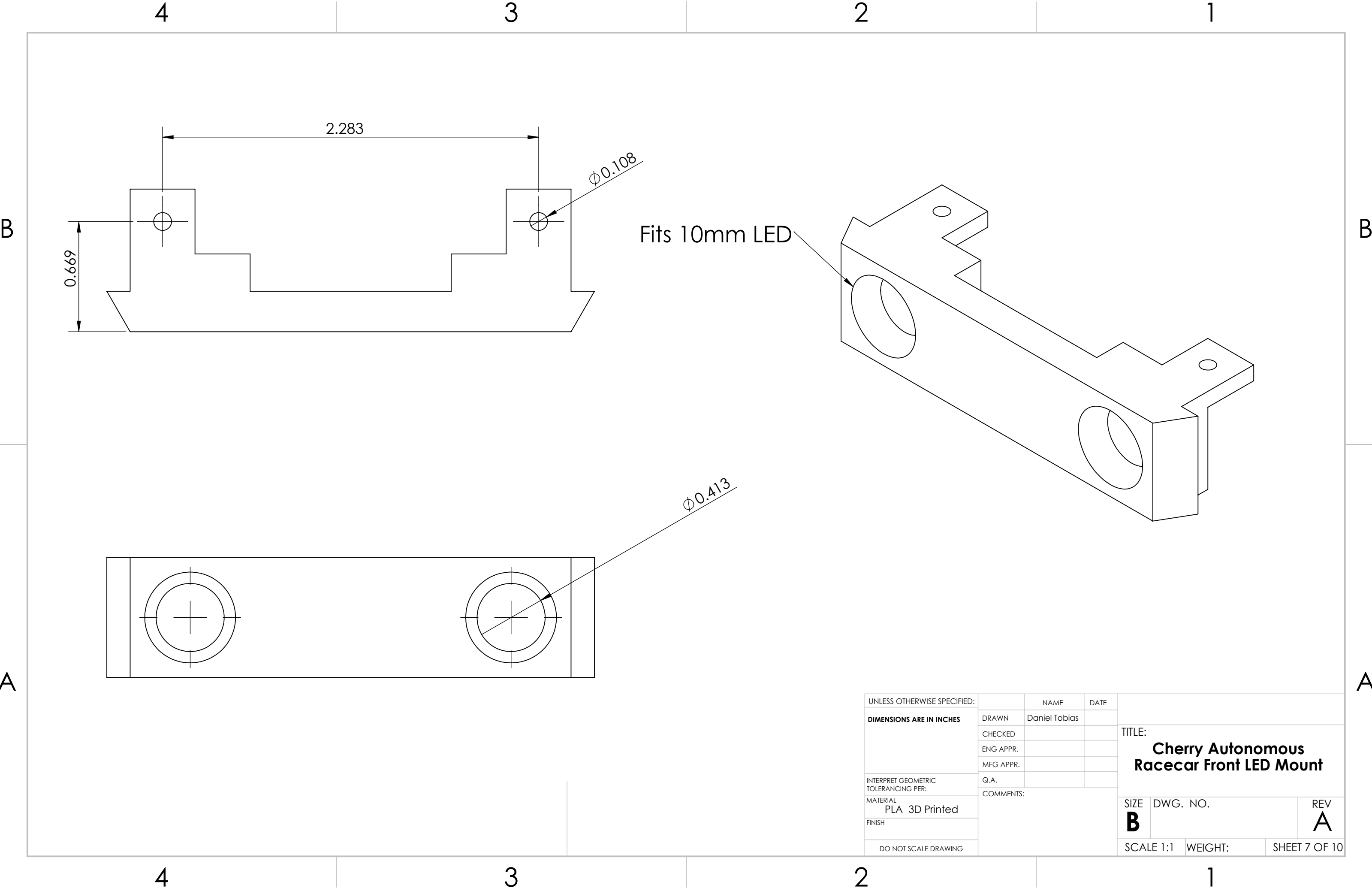
B

A

|   |           |               |      |  |         |               |
|---|-----------|---------------|------|--|---------|---------------|
| UNLESS OTHERWISE SPECIFIED:             |           | NAME          | DATE | TITLE:<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 |



|   |   |               |      |   |          |               |
|---|---|---------------|------|---|----------|---------------|
| 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>Cherry Autonomous Racecar USB hub |          |               |
|   | DRAWN   | Daniel Tobias |      |   |          |               |
|   | CHECKED   |               |      |   |          |               |
|   | ENG APPR.   |               |      |   |          |               |
|   | MFG APPR.   |               |      |   |          |               |
|   | COMMENTS:<br><br>For the location of the holes on the USB hub |               |      | SIZE<br>B                                       | DWG. NO. | REV<br>A      |
|   |   |               |      | SCALE 1:1                                       | WEIGHT:  | SHEET 6 OF 10 |



|   |           |               |      |  |          |         |                 |
|---|-----------|---------------|------|--|----------|---------|-----------------|
| UNLESS OTHERWISE SPECIFIED:             |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Front LED Mount</b> |          |         |                 |
| DIMENSIONS ARE IN INCHES                | 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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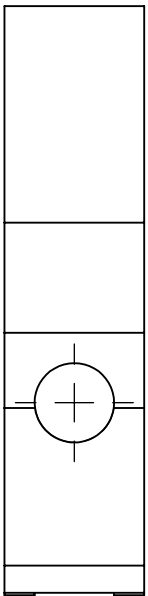
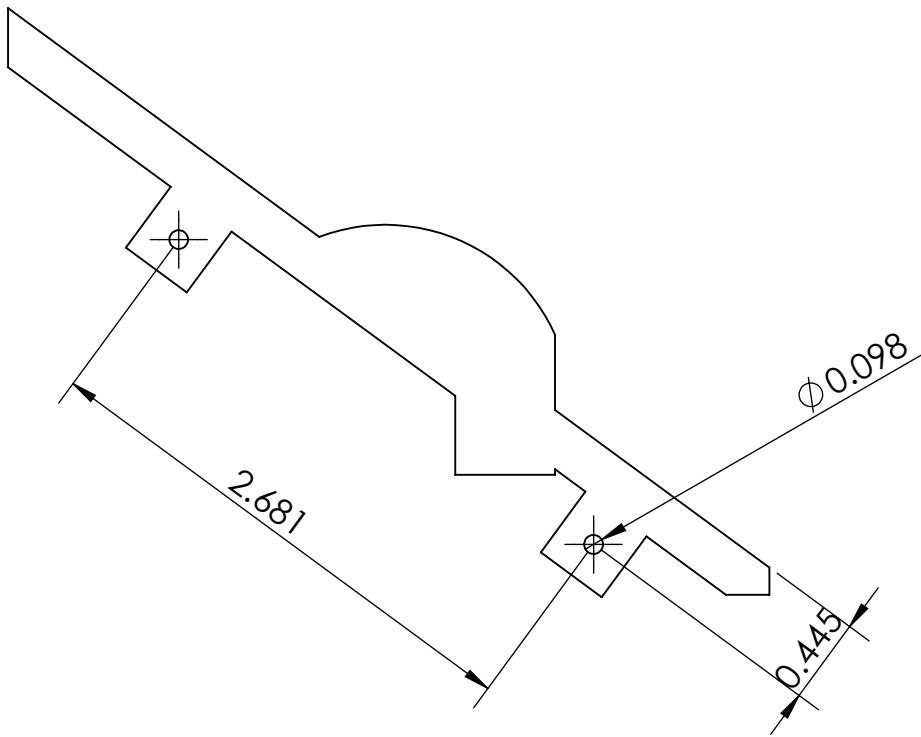
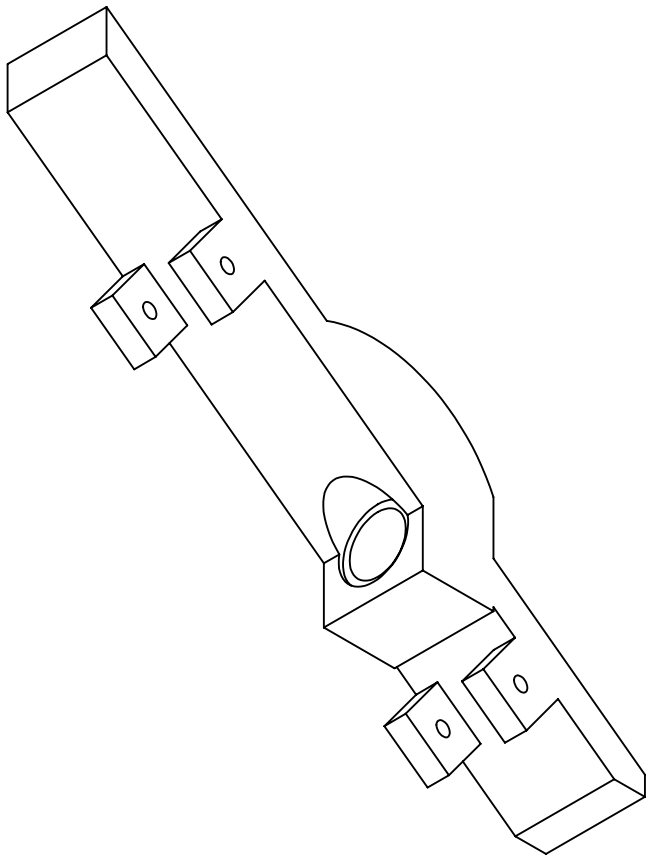
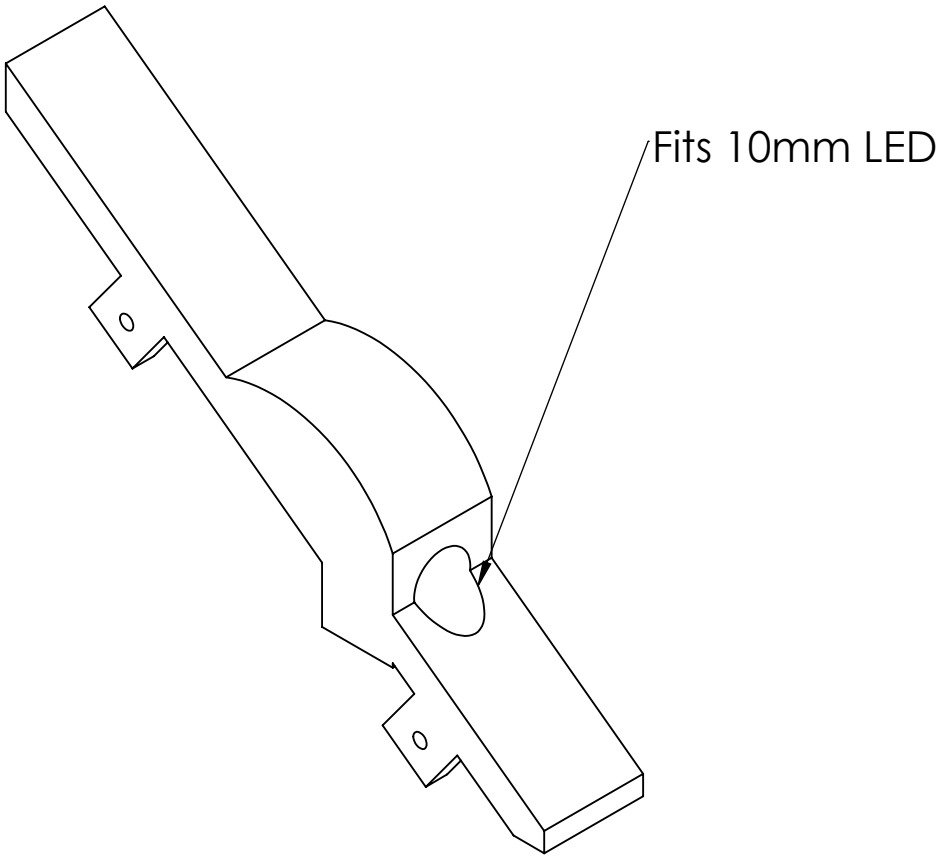
1

B

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A



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

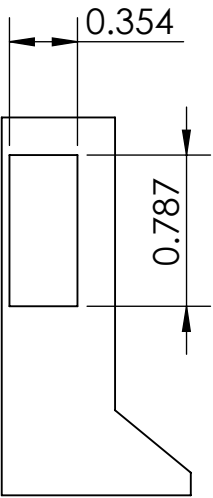
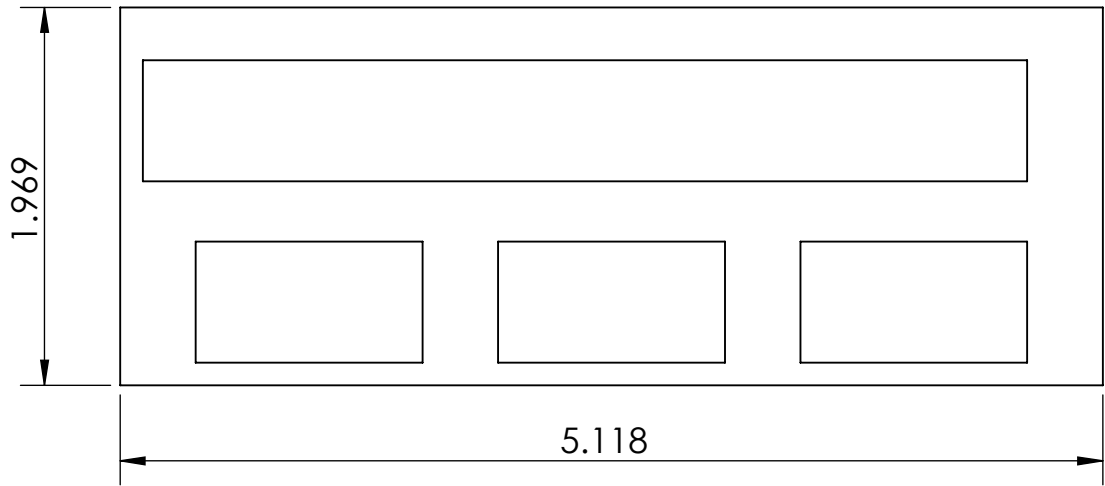
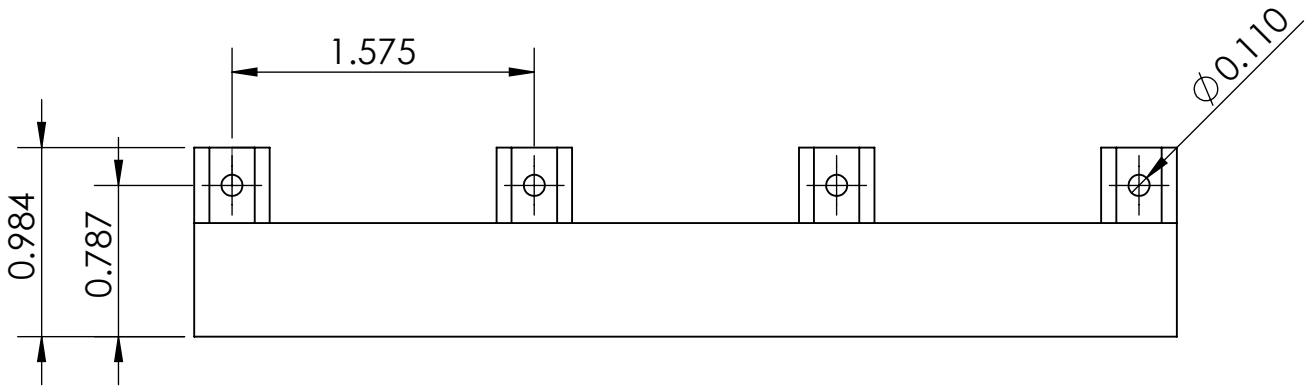
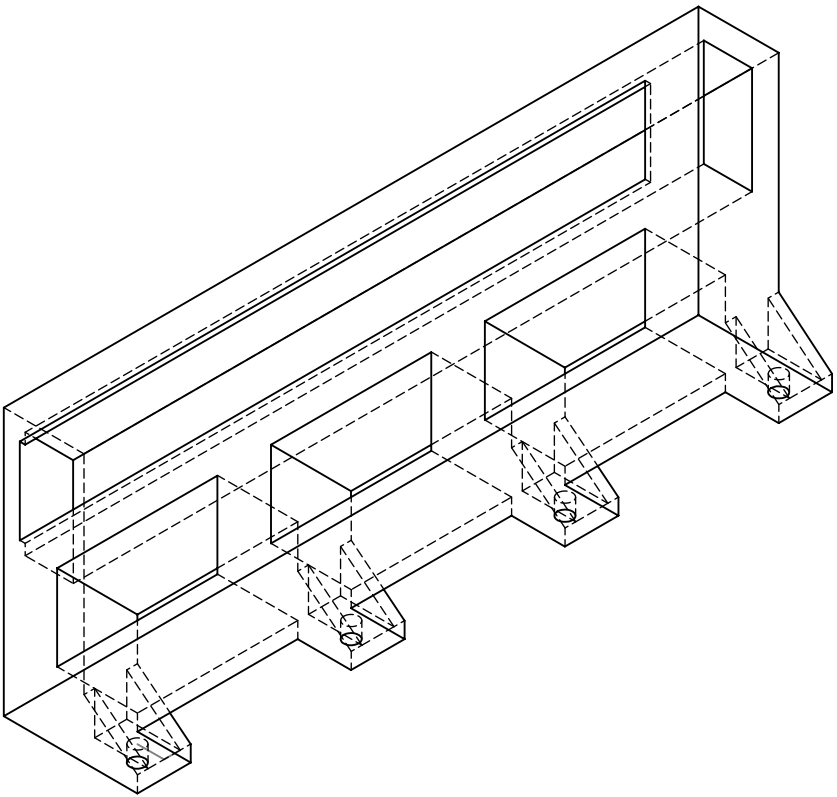
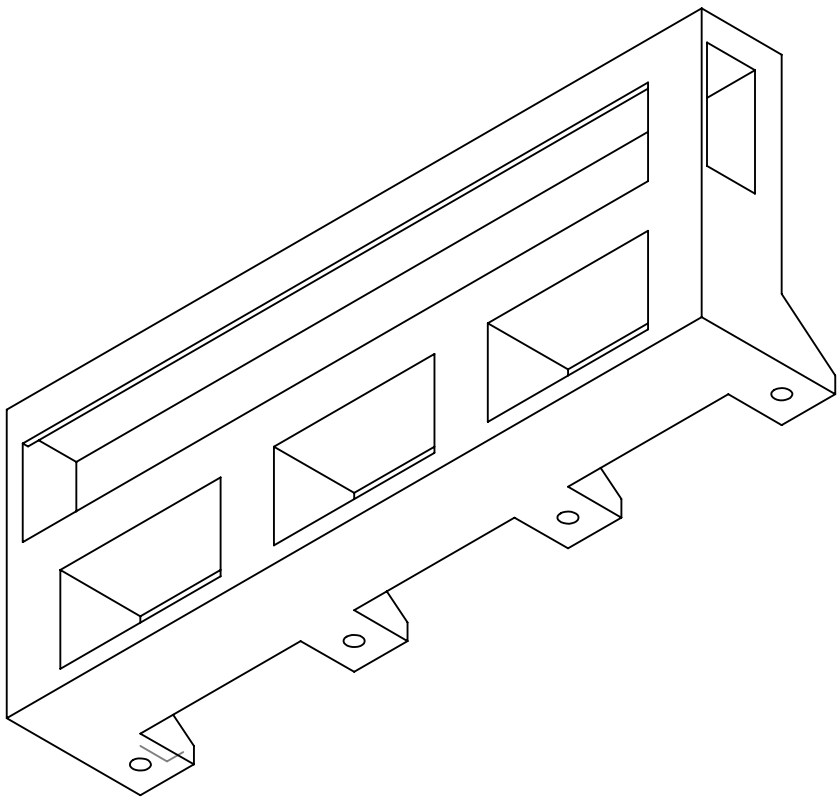


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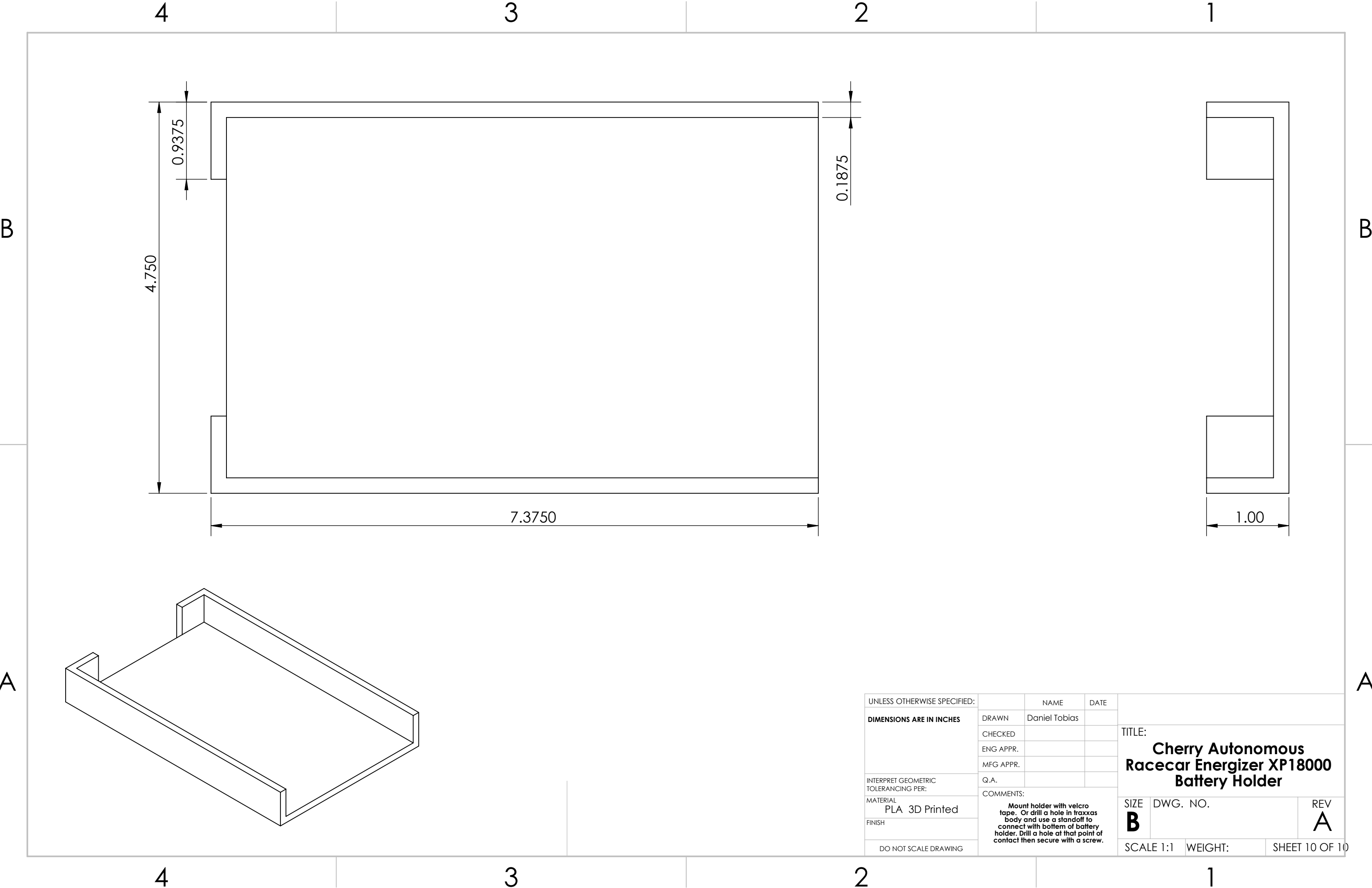
|   |           |               |      |   |          |               |
|---|-----------|---------------|------|---|----------|---------------|
| UNLESS OTHERWISE SPECIFIED:             |           | NAME          | DATE | TITLE:<br><br><b>Cherry Autonomous<br/>Racecar Intel RealSense<br/>R200 Mount</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 |

4

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1



|   |                |               |      |   |          |
|---|----------------|---------------|------|---|----------|
| UNLESS OTHERWISE SPECIFIED:             |                | NAME          | DATE | TITLE:<br><b>Cherry Autonomous<br/>Racecar Energizer XP18000<br/>Battery Holder</b>   |          |
| DIMENSIONS ARE IN INCHES                | DRAWN          | Daniel Tobias |      |   |          |
|   | CHECKED        |               |      |   |          |
|   | ENG APPR.      |               |      |   |          |
|   | MFG APPR.      |               |      |   |          |
| INTERPRET GEOMETRIC<br>TOLERANCING PER: | Q.A.           |               |      | COMMENTS:<br><b>Mount holder with velcro<br/>tape. Or drill a hole in traxxas<br/>body and use a standoff to<br/>connect with bottom of battery<br/>holder. Drill a hole at that point of<br/>contact then secure with a screw.</b> |          |
| MATERIAL                                | 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 10 OF 10  |          |