Note: If you are planning to disassemble frequently, you may want to consider using bolted connections instead of screws. It is helpful to consider ability to move assembly through doors before fastening sub-assemblies together.

Hardware Needed:
#8 x 2" Long Screw - Qty 10

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-22010</td>
<td>Hub - Simple Build - Fender Assembly</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-22020-Single</td>
<td>Hub - Simple Build - Lower Hub Assembly - Single</td>
<td>1</td>
</tr>
</tbody>
</table>

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGULAR, MACH: 1° BEND: 1°
TWO PLACE DECIMAL: 0.13
THREE PLACE DECIMAL: 0.125

MATERIAL/FINISH:
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COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

DO NOT SCALE DRAWING
Note: On Field, there is a protrusion in approximately this location. See GE-22300 for details.
Step 1:

1. Align (2) to (1), as shown.
2. Connect using 2" Long Screws. It is recommended to 10x screws, 5x screws into each 4" x 4" Lumber on (2), as shown in Section A-A.
Hardware Needed:

- #8 x 2" Long Screw - Qty 10

<table>
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<tr>
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<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-22013</td>
<td>HUB - Basic Build - Fender Front Assembly</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-22017</td>
<td>HUB - Basic Build - Fender Side Assembly</td>
<td>2</td>
</tr>
</tbody>
</table>

**UNLESS OTHERWISE SPECIFIED:**
- SCALE: 1:6
- MATERIAL/FINISH:
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  - FRACTIONAL: ±1/16
  - ANGULAR: MACH ±1° BEND ±1°
  - TWO PLACE DECIMAL: ±0.13
  - THREE PLACE DECIMAL: ±0.125
- DO NOT SCALE DRAWING

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**
- REMOVE ALL BURRS AND SHARP EDGES.
Step 1:
1. Align 2x (2) to (1) as shown.
2. Connect using 2” long screws. It is recommended to use 5x screws into each (2).
Step 1:
1. Align 2x 1 to 2 as shown, using dimensions provided on Sheet 2.
2. Connect using 2" long screws. It is recommended to use 7x screws into each 1.

Hardware Needed:
#8 x 2" Long Screws - Qty 14

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-22011</td>
<td>HUB - Simple Build - Fender Front Horizontal 2x4</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>TE-22012</td>
<td>HUB - Simple Build - Fender Front</td>
<td>1</td>
</tr>
</tbody>
</table>
Exploded View

Hardware:
- #8 x 2" Long Screw - Qty 16
- #8 x 2.5" Long Screw - Qty 8

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-22014</td>
<td>HUB - Simple Build - Fender Side Horizontal 2x4</td>
</tr>
<tr>
<td>2</td>
<td>TE-22015</td>
<td>HUB - Simple Build - Fender Vertical 2x4</td>
</tr>
<tr>
<td>3</td>
<td>TE-22016</td>
<td>HUB - Simple Build - Fender Side</td>
</tr>
</tbody>
</table>

UNLESS OTHERWISE SPECIFIED:
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  - FRACTIONAL: 1/16
  - TWO PLACE DECIMAL: 1/32
  - THREE PLACE DECIMAL: 1/64

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MATERIAL/FINISH:
- REMOVE ALL BURRS AND SHARP EDGES.

DO NOT SCALE DRAWING

DRAWN: KAMC
DATE: 12/30/2021

TEAM:
- A
- B
- C
- D

SCALE: 1:4
SHEET 1 OF 3
Step 1
1. Align 2x 1 and 2x 2, as shown.
2. Attach using 2.5" long screws. It is recommended to use 2x screws into each interface between a 2 and 1.

Step 2
1. Align 3 to the assembly made in Step 1, as shown.
2. Attach using 2" long screws. It is recommended to use 5x screws into each 2 and 3x screws into each 1.
Step 1:
1. Align 1 to 2x 2, as shown.
2. Connect using 3" long screws. It is recommended to use 4x screws into each 2.

Note: Be careful not to place screws too close to the edges of 2.

Hardware Needed:
#6 x 3" Long Screws - Qty 8

Note: Use TE-22020-Multiple if you are forming more than 1/4 ring.

<table>
<thead>
<tr>
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<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TE-22023</td>
<td>HUB - Basic Build - Lower Hub Ring Assembly</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-22025</td>
<td>HUB - Simple Build - Vertical for Lower Hub Ring 4x4</td>
<td>2</td>
</tr>
</tbody>
</table>
Note: On Field, there is a protrusion in approximately this location. See GE-22300 for details.

Spacing critical for attachment to Fender Assembly (TE-22010)
Note:
1. Radii located at internal corners are provided predominately for teams making parts with a router. A 90-degree angle is sufficient clearance.
2. Use TE-22021-Multiple if you are forming more than 1/4 ring.

Material/Finish:
3/4" Plywood

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR: ±1° BEND: ±1°
TWO PLACE DECIMAL: ±0.01
THREE PLACE DECIMAL: ±0.005

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COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

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Comments:
Remove all burrs and sharp edges.
Step 1:
1. Align 2x1, as shown.
2. Connect using 1.25" long screws. It is recommended to use 8x screws. Screws should ONLY be placed around the arc. Avoid placing screws on the rectangular ends.

Note: Use TE-22023-Multiple if you are forming more than 1/4 ring.

Hardware Needed:
#8 x 1.25" Long Screws - Qty 8

<table>
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<tbody>
<tr>
<td>1</td>
<td>TE-22021-Single</td>
<td>Hub - Simple Build - Lower Hub Ring - Single</td>
<td>2</td>
</tr>
</tbody>
</table>

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGULAR, MACH: 1° BEND: 1°
TWO PLACE DECIMAL: 0.13
THREE PLACE DECIMAL: 0.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

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COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.
Avoid placing screws in this area

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR, MACH: ±1° BEND: ±1°
TWO PLACE DECIMAL: ±0.13
THREE PLACE DECIMAL: ±0.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM NAME DATE

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR, MACH: ±1° BEND: ±1°
TWO PLACE DECIMAL: ±0.13
THREE PLACE DECIMAL: ±0.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM NAME DATE

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR, MACH: ±1° BEND: ±1°
TWO PLACE DECIMAL: ±0.13
THREE PLACE DECIMAL: ±0.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM NAME DATE

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR, MACH: ±1° BEND: ±1°
TWO PLACE DECIMAL: ±0.13
THREE PLACE DECIMAL: ±0.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM NAME DATE