Hardware Needed:

- #8 x 1.25" Long Screw - Qty 16
- #8 x 2" Long Screw - Qty 32
- #8 x 2.5" Long Screw - Qty 20
- #8 x 3" Long Screw - Qty 16
- #10 x 3.5" Long Screw - Qty 64

Optional, but encouraged: Safety Edging

Note:

1. Use TE-22000 if NOT pairing with AndyMark Ring AM-4672.
2. If you are planning to disassemble frequently, you may want to consider using bolted connections instead of screws. It is helpful to consider ceiling height and ability to move assembly through doors before fastening sub-assemblies together.
1. Align 4 and 5 as shown. Note the dimensions in Detail B.

2. Connect using 1.25" and 2.5" long screws. It is recommended to use 4x 1.25" long screws into each area indicated by A. It is recommended to use 5x 2.5" long screws into each area indicated by B.

3. Optional: It is recommended to install safety edging on 7 at this time. Safety edging could be pool noodles, baby proofing material, etc.
Step 3

1. Align 4x 1 to 5 from Step 2, as shown.
2. Connect using 3.5" long screws. It is recommended to use 8x screws per 1, 4x into each 2"x4" lumber of 1.

Step 4

1. Align 4x 3 to corners created by 1's in Step 3, as shown.
2. Connect 3 to the surrounding 2x 1 using 2" long screws. It is recommended to use 8x screws per 3, 4x screws per 1.
1. Align 4x2 to each other, on top of 4x3. Ideally, the triangular edges of 2 align with adjacent 3’s.

2. If this does not occur, split the difference evenly amongst all 3’s.

3. Connect 2 to 3 using 3” long screws. It is recommended to use 4x screws per 2, 2x per 3.

Note: Be careful not to screw too close to the edge of 3.

1. Add 4x6 to Step 5, as shown, by sliding into place. 6 does not rigidly attach to assembly.
Hub - Simple Build - Upper Hub Square Connection Plate

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:
3/4" Plywood

UNLESS OTHERWISE SPECIFIED:
SCALE: 1:1

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COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

DO NOT SCALE DRAWING

Sheet 1 of 1

Title: Hub - Simple Build - Upper Hub Square Connection Plate

Team: KAMC

Drawing Date: 12/29/2021

Material: 3/4" Plywood

Scale: 1:1

Sheet: 1 of 1
UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL: 1/16

ANGULAR MACH: 1° BEND, 1/16

TWO PLACE DECIMAL: 1/32

THREE PLACE DECIMAL: 1/64

MATERIAL/FINISH:

3/4" Plywood

DO NOT SCALE DRAWING

DOB: REMOVE ALL BURRS AND SHARP EDGES.

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Title: Hub - Simple Build - Upper Hub 2x4 Connection Plate

Scale: 1:1

Sheet 1 of 1
Hardware Needed:

- #8 x 2" Long Screw - Qty 10

<table>
<thead>
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<td>1</td>
<td>TE-22013</td>
<td>HUB - Basic Build - Fender Front Assembly</td>
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<td>2</td>
<td>TE-22017</td>
<td>HUB - Basic Build - Fender Side Assembly</td>
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UNLESS OTHERWISE SPECIFIED:

- SCALE: 1:6
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  - FRACTIONAL: ±1/16
  - ANGULAR, MACH: ±1° BEND: ±1°
  - TWO PLACE DECIMAL: ±.013
  - THREE PLACE DECIMAL: ±.005
- MATERIAL/FINISH:
- PROPRIETARY AND CONFIDENTIAL:
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- COMMENTS:
  - REMOVE ALL BURRS AND SHARP EDGES.
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TITLE: Hub - Simple Build - Fender Assembly

SIZE: 12/30/2021

DRAWN: KAMC

REV: SHEET 1 OF 3
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:

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<td>TE-22011</td>
<td>HUB - Simple Build - Fender Front Horizontal 2x4</td>
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<td>2</td>
<td>TE-22012</td>
<td>HUB - Basic Build - Fender Front Assembly</td>
<td>1</td>
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UNLESS OTHERWISE SPECIFIED:

- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  - FRACTIONAL: ±1/16
  - ANGULAR: ±1°
  - BEND: ±1°
  - THREE PLACE DECIMAL: ±0.003
- MATERIAL/FINISH:
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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:
2"x4" Lumber

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TEAM
NAME
DATE

DRAWN
KAMC
12/29/2021

SIZE
DWG. NO.
REV

C
TE-22014
1

SCALE: 1:1
SHEET 1 OF 1

HUB - Simple Build -
Fender Side Horizontal
2x4
Hardware:

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

ITEM NO. | PART NUMBER | DESCRIPTION
--- | --- | ---
1 | TE-22014 | HUB - Simple Build - Fender Side Horizontal 2x4
2 | TE-22015 | HUB - Simple Build - Fender Vertical 2x4
3 | TE-22016 | HUB - Simple Build - Fender Side Assembly

UNLESS OTHERWISE SPECIFIED:

- SCALE: 1:4
- DO NOT SCALE DRAWING

MATERIAL/FINISH:

- REMOVE ALL BURRS AND SHARP EDGES.

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HUB - Basic Build -
Fender Side Assembly

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

MATERIAL/FINISH:

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TEAM | NAME | DATE
--- | --- | ---

DRAWN | KAMC | 12/30/2021

UNLESS OTHERWISE SPECIFIED:

SCALE: 1:4
SHEET 2 OF 3

C
TE-22017

DO NOT SCALE DRAWING
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.

Hidden Lines Shown
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-Single if you are forming only 1/4 ring.

Note:
To convert TE-22021-Single to TE-22021-Multiple, cut the corner of part, as shown.

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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL: ±0.001
THREE PLACE DECIMAL: ±0.0005

MATERIAL/FINISH:
3/4" Plywood

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

DO NOT SCALE DRAWING

TEAM | NAME | DATE
--- | --- | ---
KAMC | 12/29/2021

TITLE:
Hub - Simple Build - Lower Hub Ring - Multiple

SCALE: 1:6
REV: C
SIZE: DWG. NO.
C
SHEET 1 OF 1
Step 1:
1. Align 2x 1 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 triangular ends.

Note: Use TE-22023-Single if you are only forming a 1/4 ring.

Hardware:
#8 x 1.25" Long Screw - Qty 8
Note: Use Assembly TE-22030-AM if pairing with AndyMark’s AM-4672 Assembly

Hardware Needed:
#8 x 1.25” Long Screw - Qty 12
#8 x 2” Long Screw - Qty 60

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<td>TE-22036-AM</td>
<td>Hub - Simple Build - Upper Hub Goal 4x4 for AM Ring AM-4672</td>
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<td>2</td>
<td>TE-22038</td>
<td>Hub - Simple Build - Upper Hub Goal Bottom Assembly</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>TE-22037</td>
<td>Hub - Simple Build - Upper Hub Goal Rectangle Connection Plate</td>
<td>4</td>
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<td>4</td>
<td>AM-4672</td>
<td>AndyMark Produced - Upper Hub Vision Ring</td>
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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES: FRACTIONAL: 1/16
ANGULAR: MACH ±1° BEND ±1°
THREE PLACE DECIMAL: ±.001
TWO PLACE DECIMAL: ±.005

MATERIAL/FINISH:

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TEAM NAME DATE
KAMC 12/30/2021

TITLE: Hub - Simple Build - Upper Hub Goal Assembly for AM Ring AM-4672

SIZE: 1:12 SHEET 1 OF 4
UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGULAR: MACH 1° BEND: 1°
TWO PLACE DECIMAL: .13
THREE PLACE DECIMAL: .125

MATERIAL/FINISH:

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TEAM | NAME | DATE
--- | --- | ---

DRAWN KAMC 12/30/2021

TITLE: Hub - Simple Build - Upper
Hub Goal Assembly for AM
Ring AM-4672

SIZE | DWG. NO. | REV
--- | --- | ---
C | TE-22030-AM | SHEET 2 OF 4

SCALE: 1:12
1. Align 4x 1 to 2, as shown.
2. Connect using 2" Long Screws. It is recommended to use 4x screws per 2.

1. Align 4x 3 to Step 1, as shown.
2. Attach 3 to 1 using 2" Long Screws. It is recommended to use 8 screws per 3, x4 into each 1.
3. Attach 3 to the 2"x4" Lumber of 2 using 1.25" Long Screws. It is recommended to use 3 screws per 3. Be careful to center the screw into the 2"x4" Lumber to avoid splitting the wood.
Step 3

Remove hardware and replace with screw and washer.

Add screw in this location.

Remove center bolt stack from 4 as shown in Detail C.

Align 4 to Step 2, as shown.

Note: Warping may be present on 1. If this is the case, evenly split the difference from the dimensions provided to center 4 on assembly.

Connect using 2" Long Screws and 1/4" Washers. It is recommended to use 1x Washer (salvage from AM-4672) and 1x Screw to replace the removed bolt stack. It is recommended to use an additional 2x screws into the HDPE of 4 into each 1. Note: drilling under-sized pilot holes into the HDPE may allow for easier assembly.
Hub - Simple Build -
Upper Hub Goal 2x4

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:
2x4 Lumber

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COMMENTS:
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DO NOT SCALE DRAWING
Hardware Needed:

- #8 x 2" Long Screw - Qty 58

<table>
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<th>PART NUMBER</th>
<th>DESCRIPTION</th>
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<td>1</td>
<td>TE-22005</td>
<td>Hub - Simple Build - Upper Hub Square Connection Plate</td>
<td>4</td>
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<tr>
<td>2</td>
<td>TE-22006</td>
<td>Hub - Simple Build - Upper Hub 2x4 Connection Plate</td>
<td>8</td>
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<td>3</td>
<td>TE-22035</td>
<td>Hub - Simple Build - Upper Hub Goal 2x4</td>
<td>4</td>
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DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED:

- SCALE: 1:6
- MATERIAL/FINISH:
- TOLERANCES:
  - FRACTIONAL: 1/16
  - ANGULAR, MACH: 1° BEND, 1°
  - TWO PLACE DECIMAL: 0.13
  - THREE PLACE DECIMAL: 0.125

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COMMENTS:
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DO NOT SCALE DRAWING

Team A

A A B B C C D D

4 3 2 1 4 3 2 1
Dimensions with A indicate spacing for 4"x4" lumber from TE-22036 (or TE-22036-AM if you are connecting to AndyMark’s Upper Hub Vision Ring AM-4672). It is recommended to measure the cross section of TE-22036 (or TE-22036-AM) and modify these dimensions as needed.
1. Align 2x1 on 3, as shown.
2. Connect using 2” long screws. It is recommended to use 2x screws per 2 and locate them as shown above. Keep center of 2 clear of screws.
3. Repeat until you have a total of 4x sub-assemblies.

1. Align 4x1 to the 4x Step 1 assemblies, as shown.
2. Connect using 2” long screws. It is recommended to use 8x screws per 3, 4x into each end.

Dimensions with *A* indicate spacing for 4’x4” lumber from TE-22036 (or TE-22036-AM if you are connecting to AndyMark’s Upper Hub Vision Ring AM-4672). It is recommended to measure the cross section of TE-22036 (or TE-22036-AM) and modify these dimensions as needed.

Connect using 2” long screws. It is recommended to use 8x screws per 3, 4x into each end.
Hardware Needed:

- #8 x 1.25" Long Screw - Qty 12
- #8 x 2" Long Screw - Qty 80

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<td>TE-22042</td>
<td>Hub - Simple Build - Upper Hub Base 4x4</td>
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<td>2</td>
<td>TE-22043</td>
<td>Hub - Simple Build - Upper Hub Base Rectangle Connection Plate</td>
<td>8</td>
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<td>3</td>
<td>TE-22044</td>
<td>Hub - Simple Build - Upper Hub Base Top Assembly</td>
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</tbody>
</table>
Step 1

1. Align 4x 1 to 3, as shown.
2. Connect using 2" Long Screws. It is recommended to use 4x screws per 1.

Step 2

1. Align 4x 2 to Step 1, as shown.
2. Attach 2 to 1 using 2" Long Screws. It is recommended to use 8x screws per 2, 4x into each 1.
3. Attach 2 to the 2"x4" Lumber of 3 using 1.25" long screws. It is recommended to use 3x screws per 2. Be careful to center the screw into the 2"x4" Lumber to avoid splitting the wood.
Step 3

1. Align 4x (2) to Step 2, as shown.
2. Attach (2) to (1) using 2" Long Screws. It is recommended to use 8x screws per (2), 4x into each (1).
3/4" Plywood

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: \(\frac{1}{16}\)
ANGULAR: MACH: \(\pm 1^\circ\) BEND: \(\pm 1^\circ\)
TWO PLACE DECIMAL: \(\pm 0.13\)
THREE PLACE DECIMAL: \(\pm 0.125\)

MATERIAL/FINISH:
3/4" Plywood

UNLESS OTHERWISE SPECIFIED:
SCALE: 1:4

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COMMENTS:
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TEAM
NAME
DATE
DRAWN

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: \(\frac{1}{16}\)
ANGULAR: MACH: \(\pm 1^\circ\) BEND: \(\pm 1^\circ\)
TWO PLACE DECIMAL: \(\pm 0.13\)
THREE PLACE DECIMAL: \(\pm 0.125\)

MATERIAL/FINISH:
3/4" Plywood

UNLESS OTHERWISE SPECIFIED:
SCALE: 1:4

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TEAM
NAME
DATE
DRAWN

UNLESS OTHERWISE SPECIFIED:
SCALE: 1:4
Exploded View

Hardware Needed:
#8 x 2" Long Screw - Qty 58

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<td>TE-22005</td>
<td>Hub - Simple Build - Upper Hub Square Connection Plate</td>
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<td>2</td>
<td>TE-22006</td>
<td>Hub - Simple Build - Upper Hub 2x4 Connection Plate</td>
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<tr>
<td>3</td>
<td>TE-22041</td>
<td>Hub - Simple Build - Upper Hub Base 2x4</td>
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Note:
Dimensions with \( A \) indicate spacing for 4’x4’ lumber from TE-22042. It is recommended to measure the cross section of TE-22042 and modify these dimensions as needed.
1. Align 2x 2 on 3 , as shown.

2. Connect using 2" long screws. It is recommended to use 2 screws per 2 and locate them as shown above. Keep center of 2 clear of screws.

3. Repeat until you have a total of 4 assemblies.

1. Align 4x 1 to the x4 Step 1 assemblies, as shown.

Dimensions with A indicate spacing for 4x4" lumber from TE-22042. It is recommended to measure the cross section of TE-22042 and modify these dimensions as needed.

2. Connect using 2" long screws. It is recommended to use 8 screws per 2, x4 into each end.
Hardware Needed:
#8 x 1.25" Long Screw - Qty 8
1. Align 3 to 1, as shown. Connection will happen in the next step.

2. Align 2 to Step 1, as shown.

3. Connect using 1.25" Long Screws. It is recommended to use 8x screws, 4x into 3 and 4x into 1.

4. Add 2x 4 to hook on 3, as shown.
UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACRATIONAL: $\frac{1}{16}$
ANGULAR: $1^\circ$ BEND $\frac{1}{16}$
TWO PLACE DECIMAL: $\frac{1}{13}$
THREE PLACE DECIMAL: $\frac{1}{125}$

MATERIAL/finish:
3/4" Plywood

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COMMENTS:
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EDGES.

DO NOT SCALE DRAWING

TEAM
NAME
DATE
DRAWN
KAMC
12/29/2021

TITLE: HUB - Basic Build -
Lower Exit Base Front

SIZE
DWG. NO.
REV
C
TE-22051
SCALE: 1:2
SHEET 1 OF 1
HUB - Simple Build - Lower Exit Base Back

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGULAR: MACH 1° BEND 1°
TWO PLACE DECIMAL: .001
THREE PLACE DECIMAL: .0005
MATERIAL/FINISH:
3/4" Plywood

DO NOT SCALE DRAWING

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COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

TEAM | NAME | DATE
--- | --- | ---

DRAWN | KAMC | 12/29/2021

TITLE: HUB - Simple Build - Lower Exit Base Back

SIZE | DWG. NO. | REV
--- | --- | ---
C | TE-22052 | 1

SCALE: 1:2 SHEET 1 OF 1

TEAM

D

C

B

A

D

C

B

A

D

C

B

A

D

C

B

A

D

C

B

A
Step 1

1. Attach 2x 1 to 2 as shown using adhesive backing.
2. Optional: Use wood staples to connect 1 to 2.

Hardware Needed:

Optional: Wood Staples

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<td>2</td>
<td>TE-22051</td>
<td>HUB - Basic Build - Lower Exit Base Front with Loop Assembly</td>
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Attach 2 to 1 as shown using adhesive backing. Optional: Use wood staples to connect 2 to 1.

Hardware Needed:
Optional: Wood Staples

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<td>HUB - Simple Build - Lower Exit 2x4</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Hook_1_13.25</td>
<td>1&quot; x 13&quot; Hook, Adhesive Backed</td>
<td>1</td>
</tr>
</tbody>
</table>

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: $\frac{1}{16}$
ANGULAR: MACH: $1^\circ$ BEND: $\frac{1}{16}$
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
Hardware Needed:

- #8 x 2" Long Screw - Qty 6

Step 1:
1. Align 1 and 2, as shown on Sheet 2.
2. Connect using 2" Long Screws. It is recommended to use 6x screws.

<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-22064</td>
<td>Hub - Simple Build - Upper Exit Chute Assembly</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>TE-22068</td>
<td>Hub - Simple Build - Upper Exit Connection Assembly</td>
<td>1</td>
</tr>
</tbody>
</table>

Hardware Needed:

- #8 x 2" Long Screw - Qty 6
UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGLULAR: MACH 1° BEND: 1"
TWO PLACE DECIMAL: 1/10
THREE PLACE DECIMAL: 1/25

MATERIAL/FINISH:
3/4" Plywood

DO NOT SCALE DRAWING

TITLE: Hub - Simple Build - Upper Exit Chute End

C
TE-22062
SCALE: 1:3
SHEET 1 OF 1

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COMMENTS:
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TEAM NAME DATE
DRAWN KAMC 12/29/2021

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGLULAR: MACH 1° BEND: 1"
TWO PLACE DECIMAL: 1/10
THREE PLACE DECIMAL: 1/25

MATERIAL/FINISH:
3/4" Plywood

DO NOT SCALE DRAWING

TITLE: Hub - Simple Build - Upper Exit Chute End

C
TE-22062
SCALE: 1:3
SHEET 1 OF 1

PROPRIETARY AND CONFIDENTIAL
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TEAM NAME DATE
DRAWN KAMC 12/29/2021

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGLULAR: MACH 1° BEND: 1"
TWO PLACE DECIMAL: 1/10
THREE PLACE DECIMAL: 1/25

MATERIAL/FINISH:
3/4" Plywood

DO NOT SCALE DRAWING

TITLE: Hub - Simple Build - Upper Exit Chute End

C
TE-22062
SCALE: 1:3
SHEET 1 OF 1

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TEAM NAME DATE
DRAWN KAMC 12/29/2021

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGLULAR: MACH 1° BEND: 1"
TWO PLACE DECIMAL: 1/10
THREE PLACE DECIMAL: 1/25

MATERIAL/FINISH:
3/4" Plywood

DO NOT SCALE DRAWING

TITLE: Hub - Simple Build - Upper Exit Chute End

C
TE-22062
SCALE: 1:3
SHEET 1 OF 1

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COMMENTS:
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TEAM NAME DATE
DRAWN KAMC 12/29/2021

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: 1/16
ANGLULAR: MACH 1° BEND: 1"
TWO PLACE DECIMAL: 1/10
THREE PLACE DECIMAL: 1/25

MATERIAL/FINISH:
3/4" Plywood

DO NOT SCALE DRAWING

TITLE: Hub - Simple Build - Upper Exit Chute End

C
TE-22062
SCALE: 1:3
SHEET 1 OF 1

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<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>TE-22061</td>
<td>Hub - Simple Build - Upper Exit Connection Plate 1</td>
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<tr>
<td>2</td>
<td>TE-22062</td>
<td>Hub - Simple Build - Upper Exit Chute End</td>
</tr>
<tr>
<td>3</td>
<td>TE-22063</td>
<td>Hub - Simple Build - Upper Exit Chute Base</td>
</tr>
</tbody>
</table>

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:

FRACTIONAL: ±1/16
ANGULAR: MACH: ±1° BEND: ±1°
TWO PLACE DECIMAL: ±0.01
THREE PLACE DECIMAL: ±0.005

MATERIAL/FINISH:

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COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

DO NOT SCALE DRAWING

TITLE:
Hub - Simple Build - Upper Exit Chute Assembly

C

SIZE: 1:5 SHEET 1 OF 3
1. Align 3 to 2, as shown. Connection will happen in the next step.

2. Align 1 to Step 1, as shown.

3. Connect using 1.25” Long Screws. It is recommended to use 8x screws, 4x screws into 3, and 4x screws into 2.
**Hardware Needed:**

- #8 x 2" Long Screw - Qty 24
- #8 x 2.5" Long Screw - Qty 8

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
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<tr>
<td>1</td>
<td>TE-22065</td>
<td>Hub - Simple Build - Upper Exit Connection Box 2x4</td>
<td>4</td>
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<tr>
<td>2</td>
<td>TE-22061</td>
<td>Hub - Simple Build - Upper Exit Connection Plate</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>TE-22066</td>
<td>Hub - Simple Build - Upper Exit Connection Box Side</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>TE-22067</td>
<td>Hub - Simple Build - Upper Exit Connection 2x4</td>
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</tr>
</tbody>
</table>

**Dimensions are in inches. Tolerances:**

- Fractional: ±1/16
- Angular: Mach ±1° Bend ±1°
- Two place decimal: ±.03
- Three place decimal: ±.025

**Material/Finish:**

- [FIRST®](#)

**Comments:**

- Do not scale drawing
- Remove all burrs and sharp edges.

**Title:** Hub - Simple Build - Upper Exit Connection Assembly

**Scale:** 1:3

**Drawing No.:** TE-22068

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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES

TOLERANCES:
- FRACTIONAL: 1/16
- ANGULAR: MACH 1° BEND 1°
- TWO PLACE DECIMAL: .13
- THREE PLACE DECIMAL: .125

MATERIAL/FINISH:

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:
- REMOVE ALL BURRS AND SHARP EDGES.

DO NOT SCALE DRAWING

TEAM NAME DATE

DRAWN KAMC 12/30/2021

TITLE: Hub - Simple Build - Upper Exit Connection Assembly

SIZE DWG. NO. REV

C TE-22068 SHEET 2 OF 3

SCALE: 1:4
1. Align 2x 1 and 2, as shown.
2. Connect using 2" Long Screws. It is recommended to use 3x screws per 1.
3. Repeat until you have a total of 2 assemblies.

1. Align 2x 3 to 2x Step 1 assemblies, as shown. Note the alignment information called out in Detail A.
2. Connect using 2" Long Screws. It is recommended to use 3x screws into each 1. Screws should not be used to attach 3 to 2.

1. Align 2x 4 to Step 2, as shown. Note dimension in Detail B.
2. Connect using 2.5" Long Screws. It is recommended to use 2x screws per 1.