

Revision 2

prototype drawings and images

Heli-Chair Mechanical Drawings

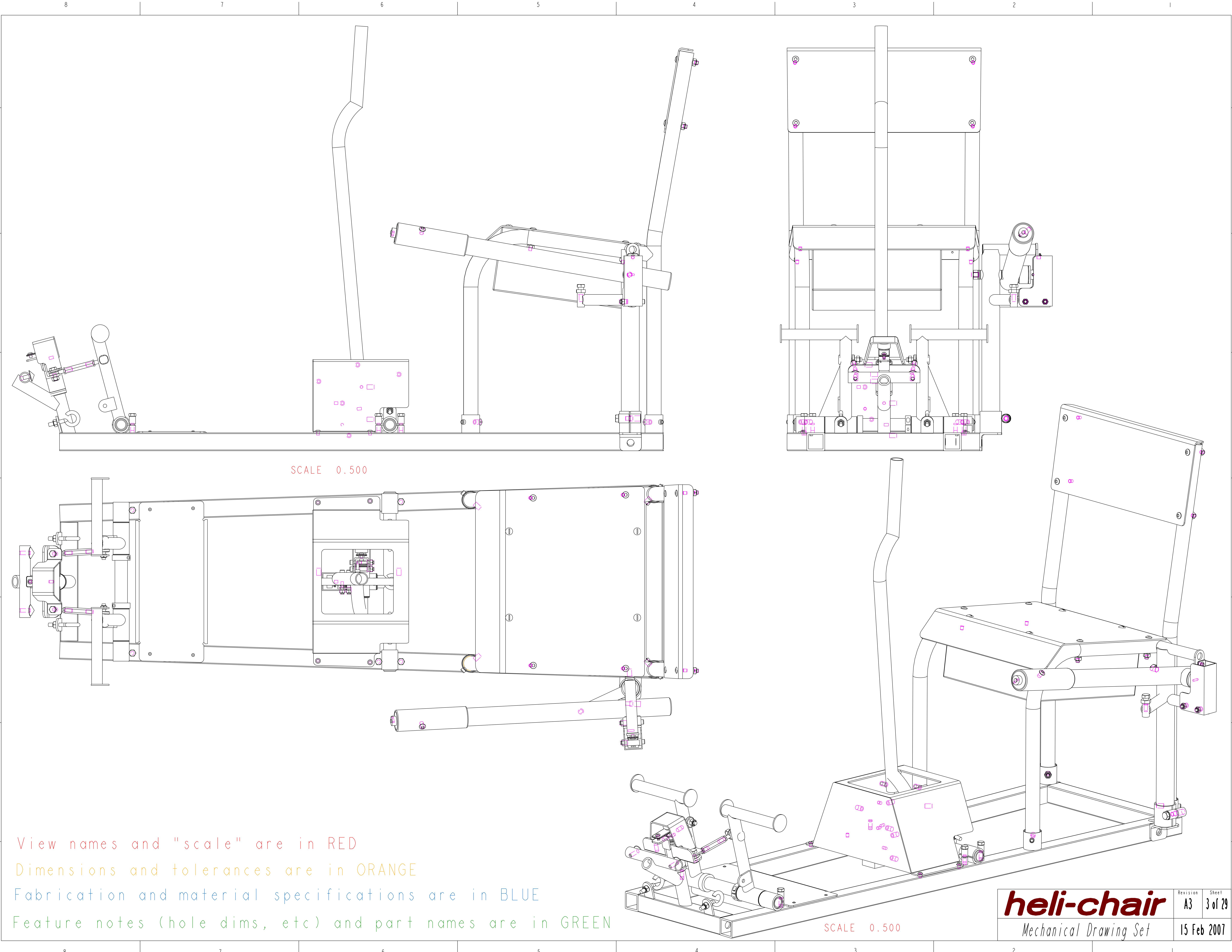
(see thick line version at end of document for printing)

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Drawings in thick line for printing.....	54

8	7	6	5	4	3	2	1
H							H
G							G
F							F
E							E
D							D
C							C
B							
A							A
8	7	6	5	4	3	2	1

Date	Rev.	Changes
19 Mar 2006	A1	Initial drawing release
25 Mar 2006	A2	Added "people proofing" guard assemblies, under seat box
15 Feb 2007	A3	Upgraded potentiometer mounting method, general refinements

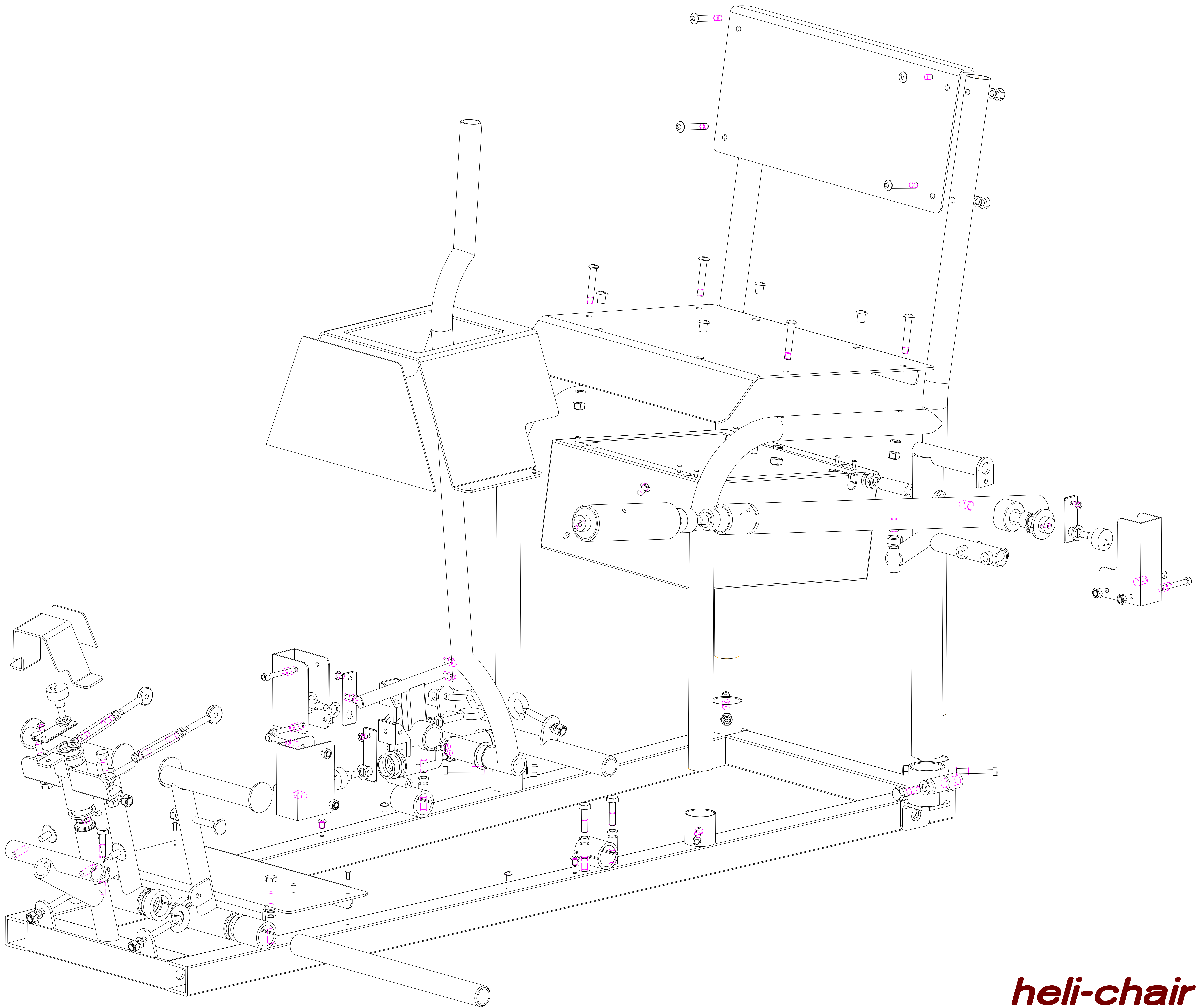


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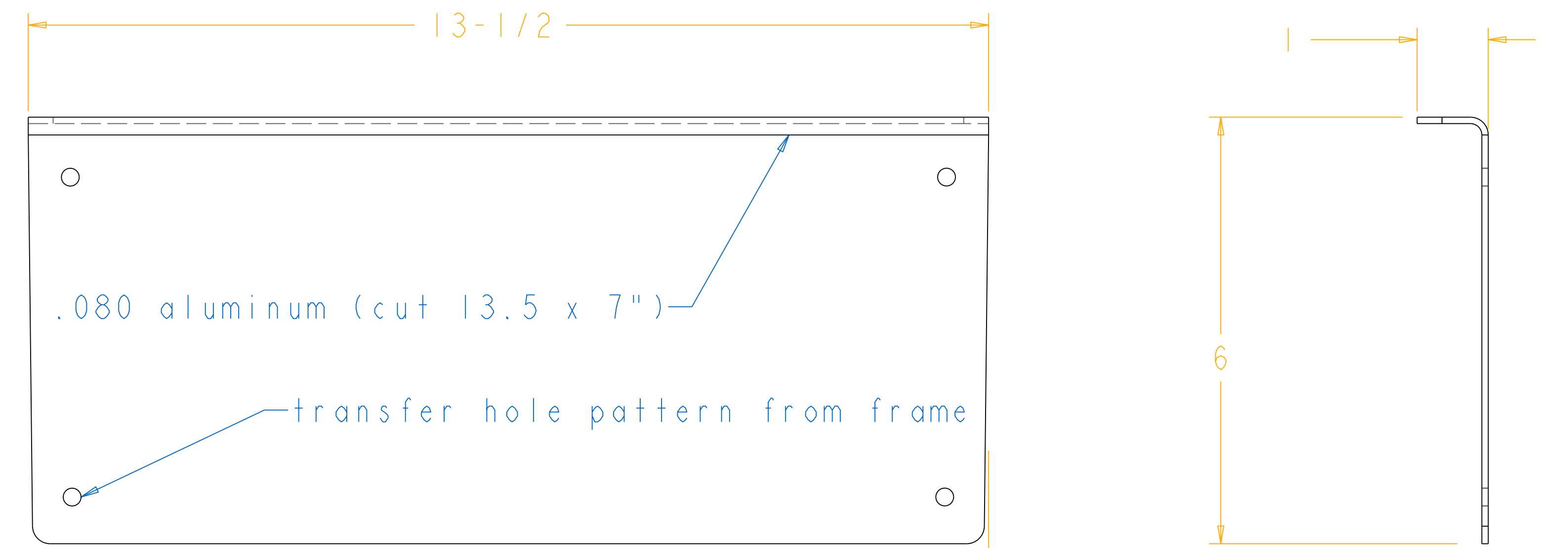
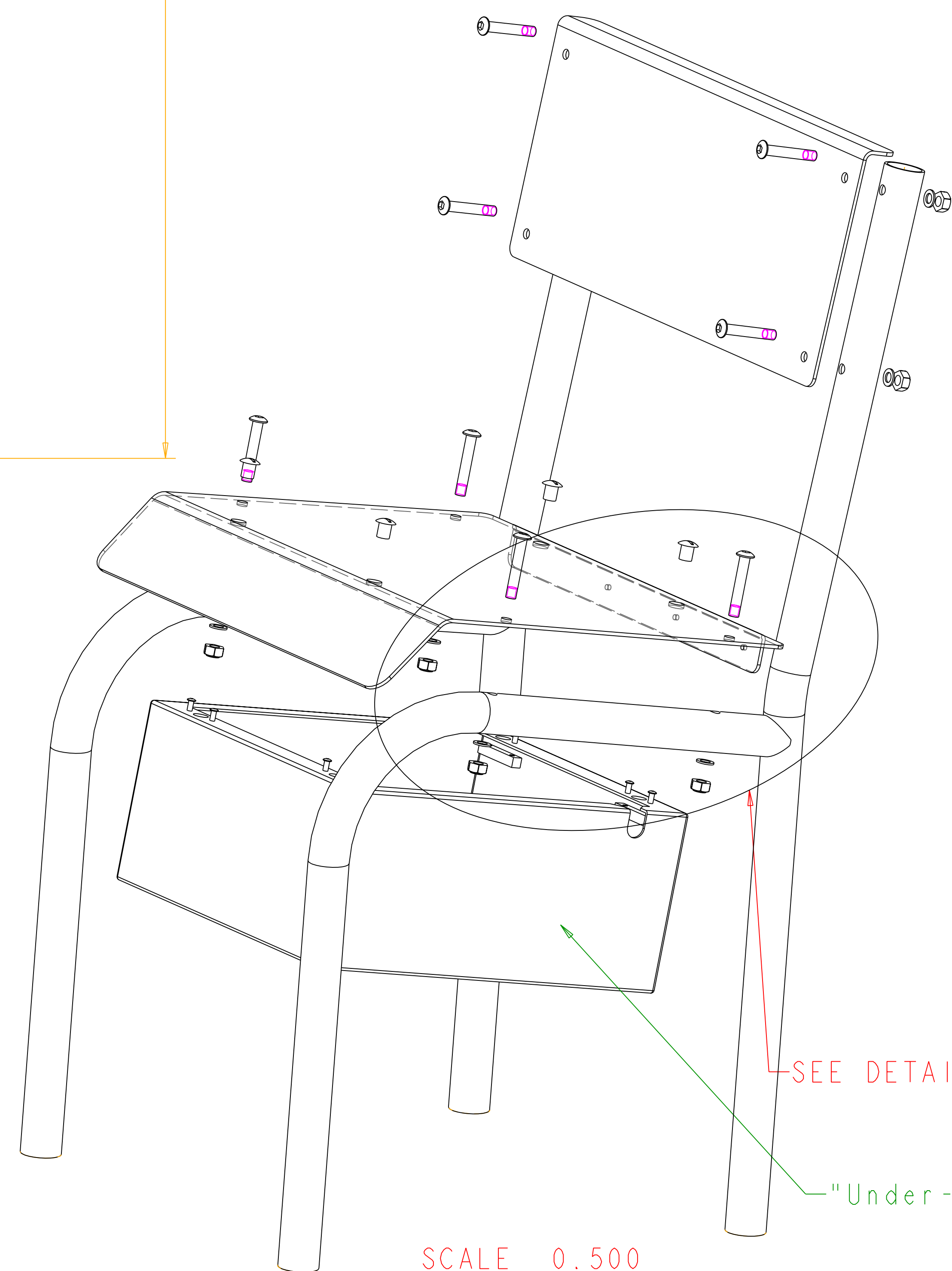
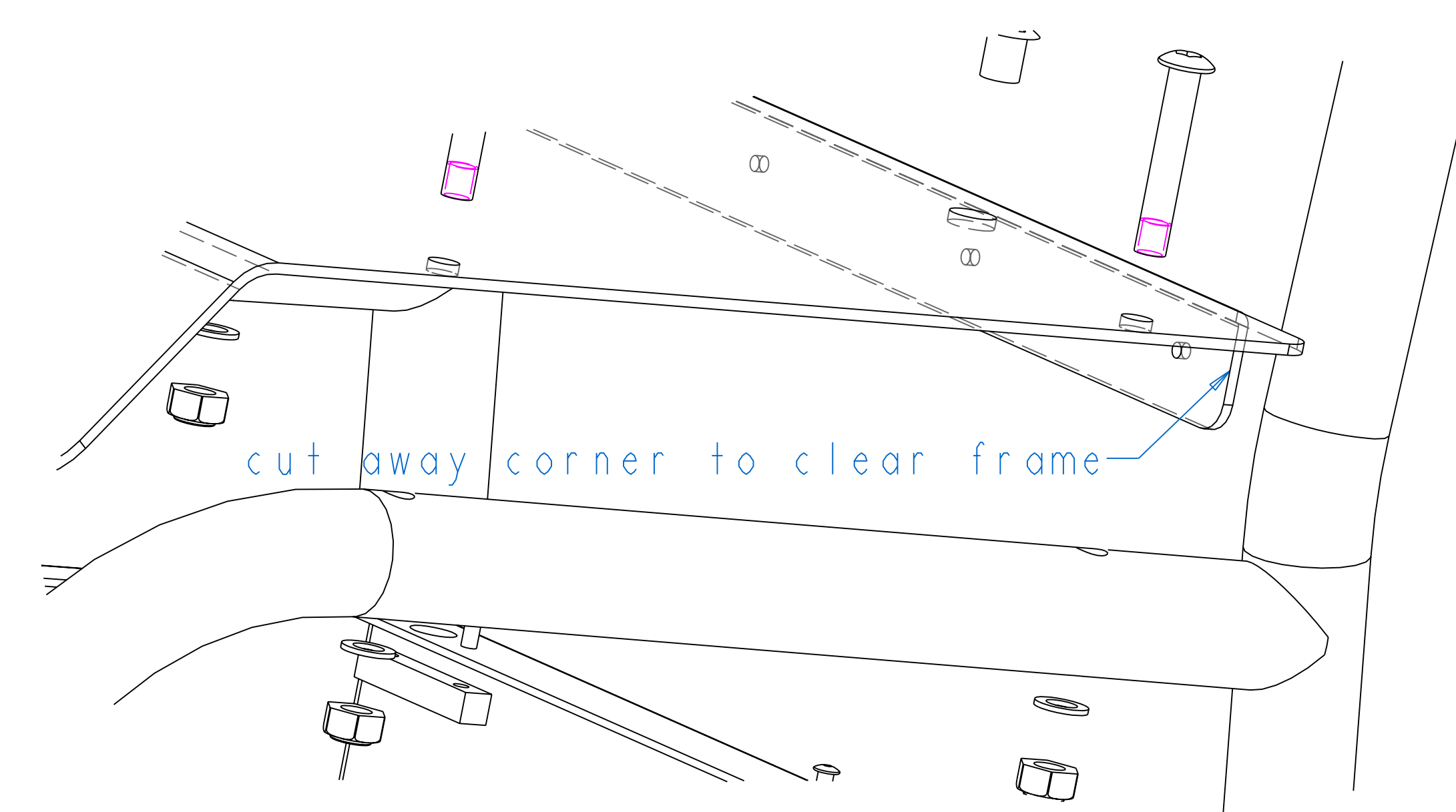
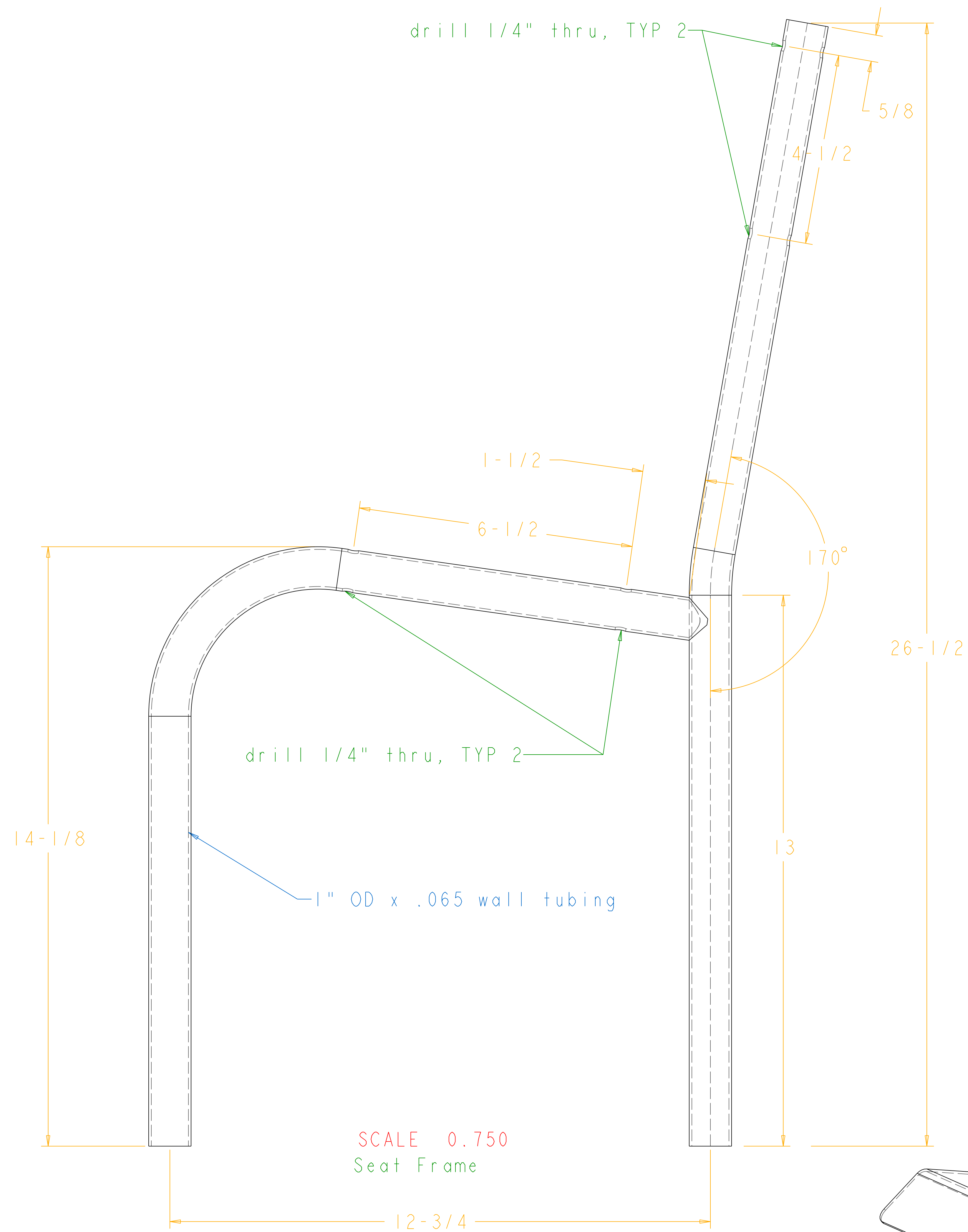
SCALE 0.500

View names and "scale" are in RED
Dimensions and tolerances are in ORANGE
Fabrication and material specifications are in BLUE
Feature notes (hole dims, etc) and part names are in GREEN

<i>heli-chair</i>		Revision	Sheet
Mechanical Drawing Set		A3	3 of 29
15 Feb 2007			

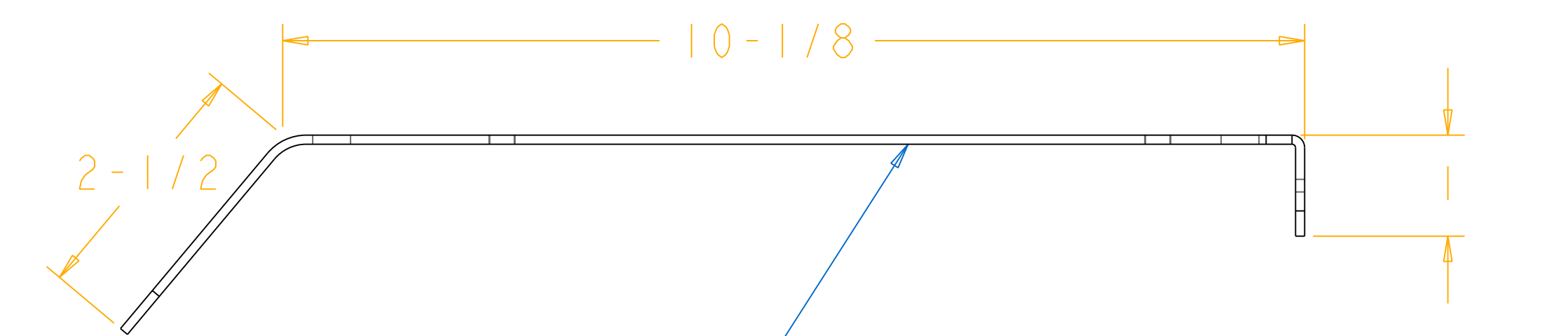


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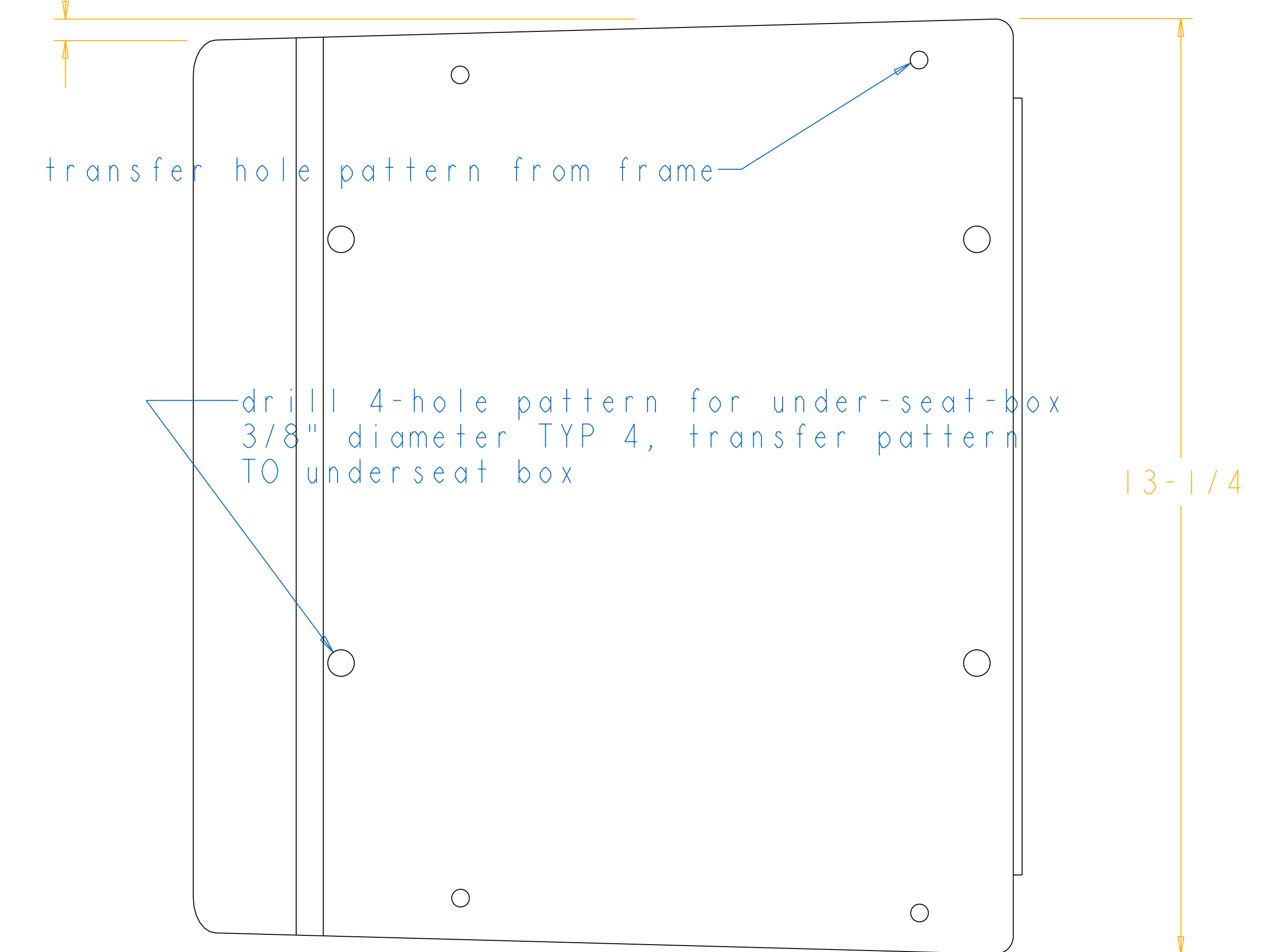


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Seat Back

1/16 ** Taper is optional **



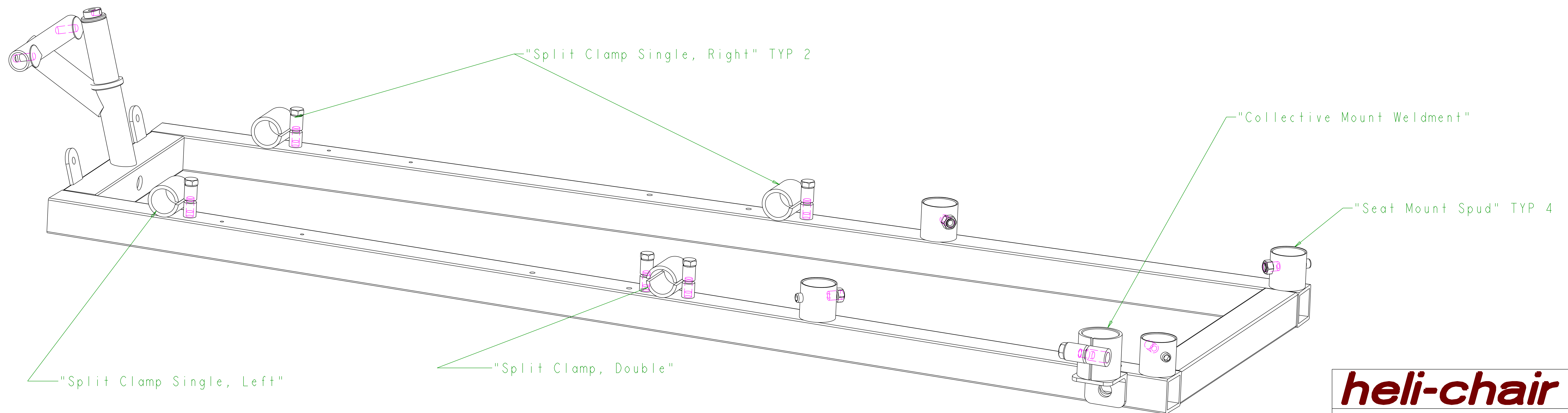
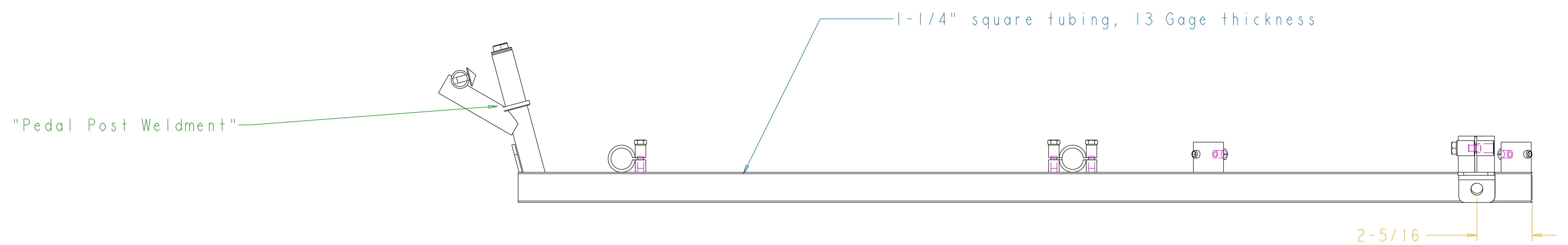
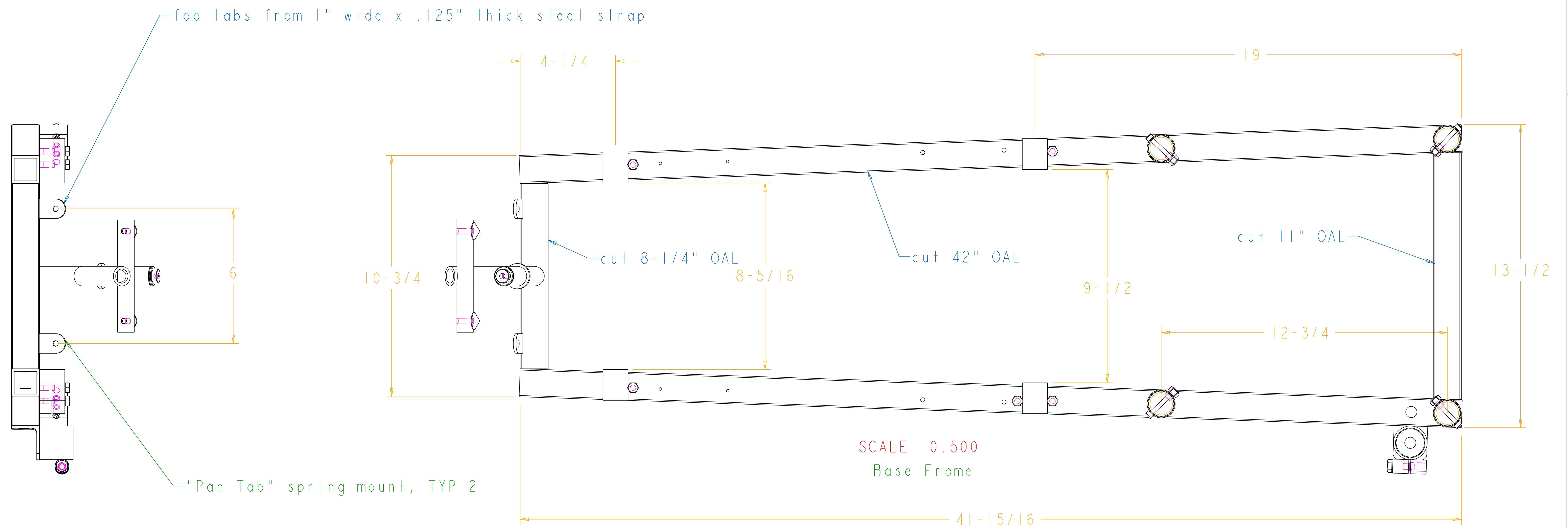
5/16 ** taper is optional! **



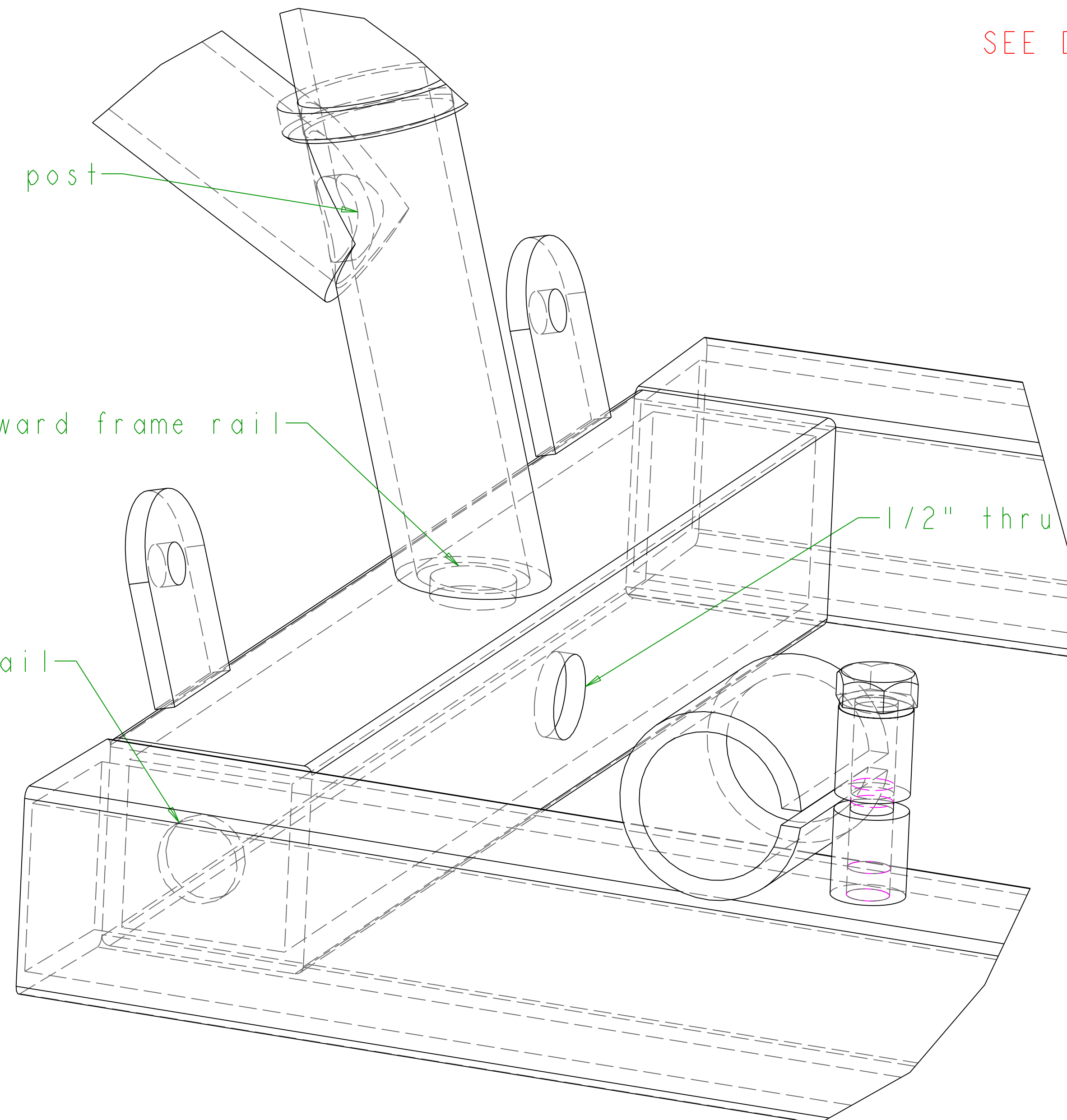
SCALE 0.750
Seat Bottom

heli-chair
Mechanical Drawing Set

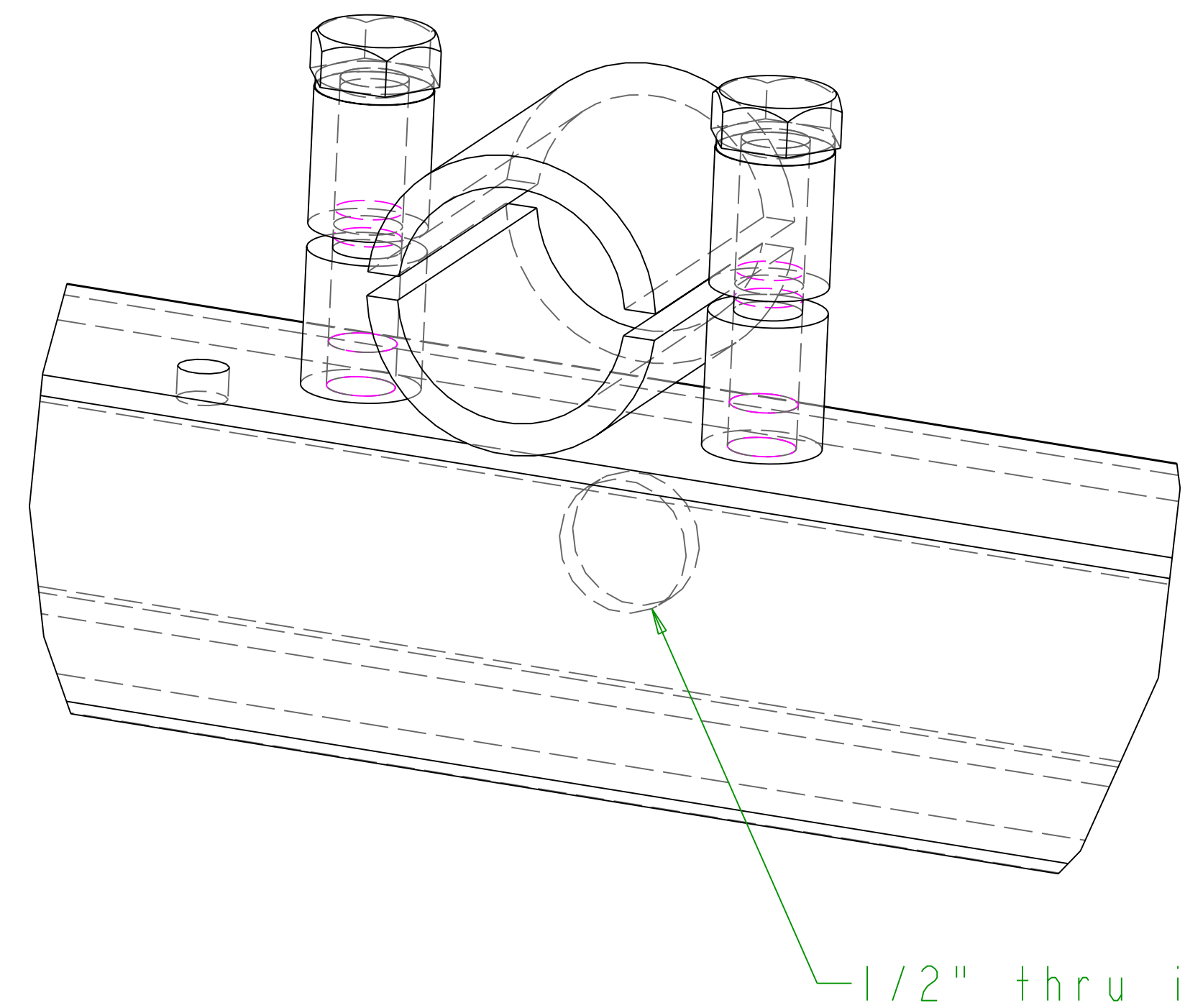
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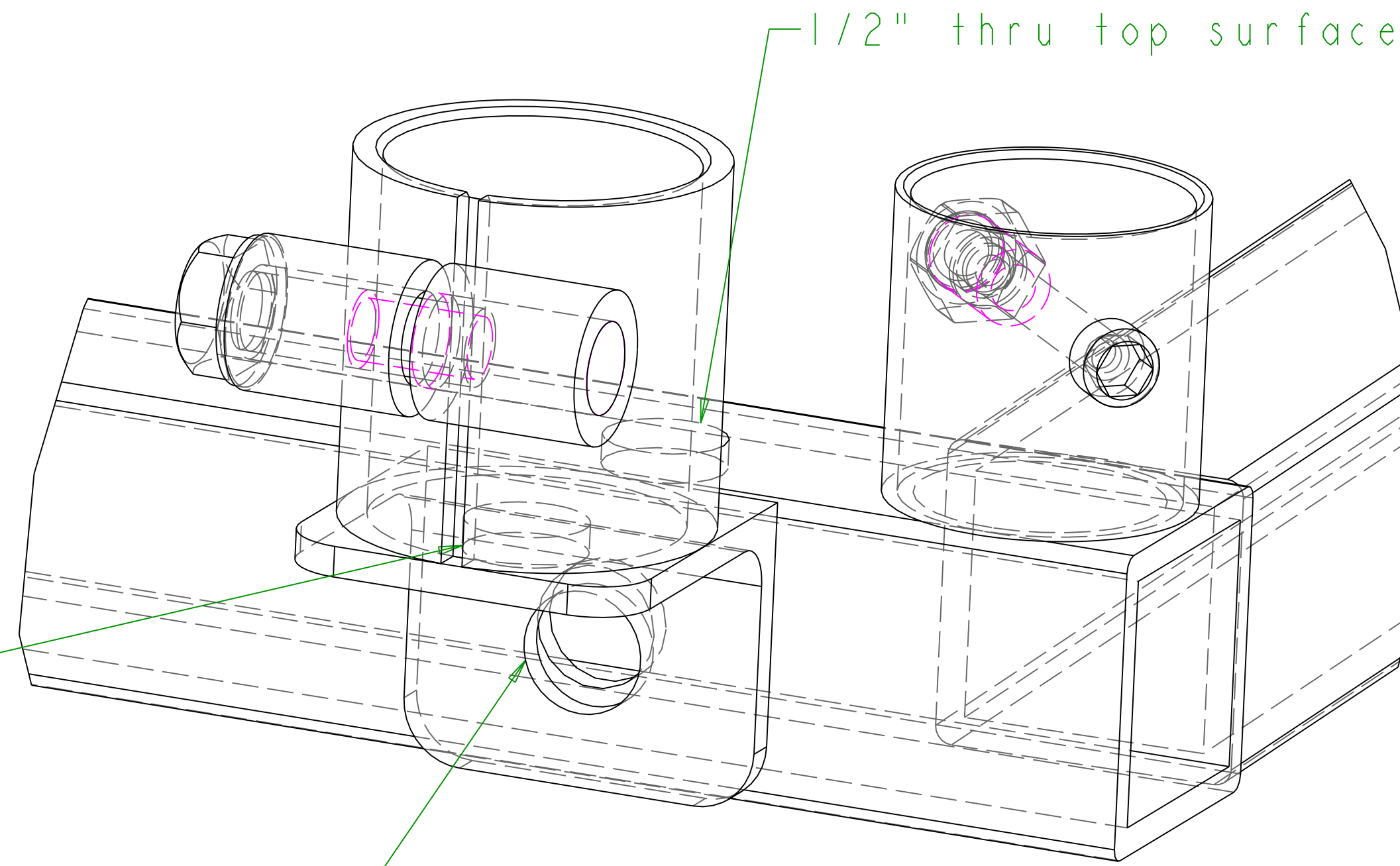
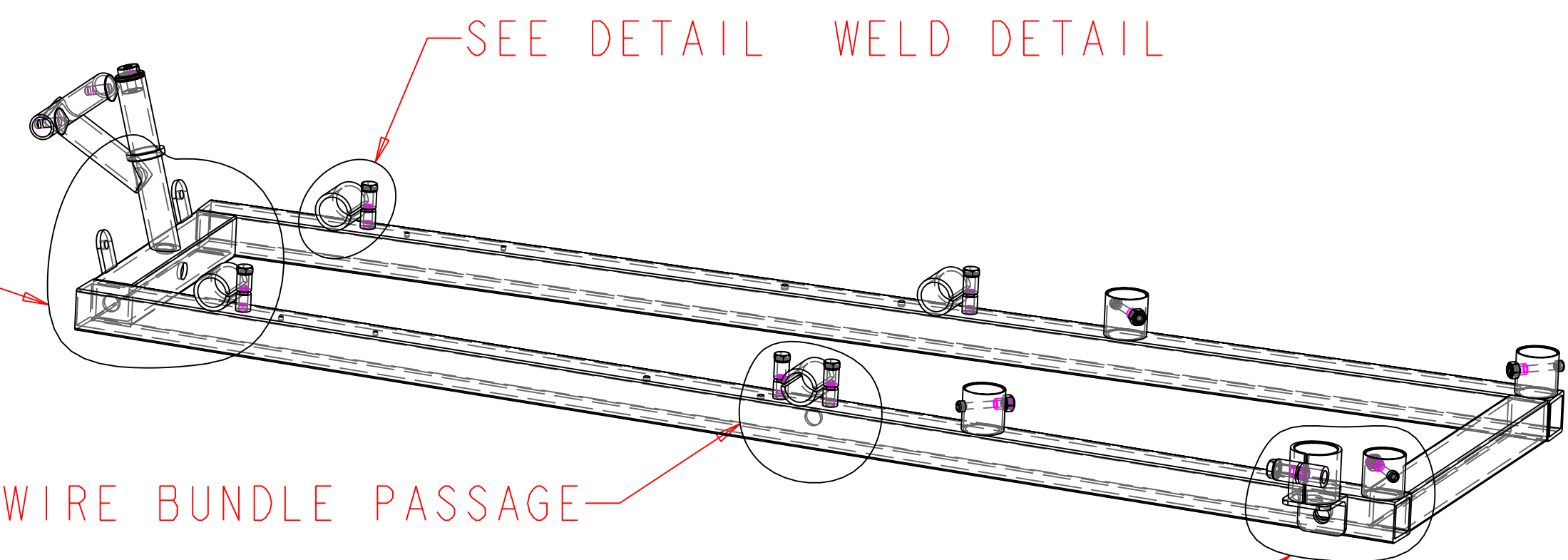
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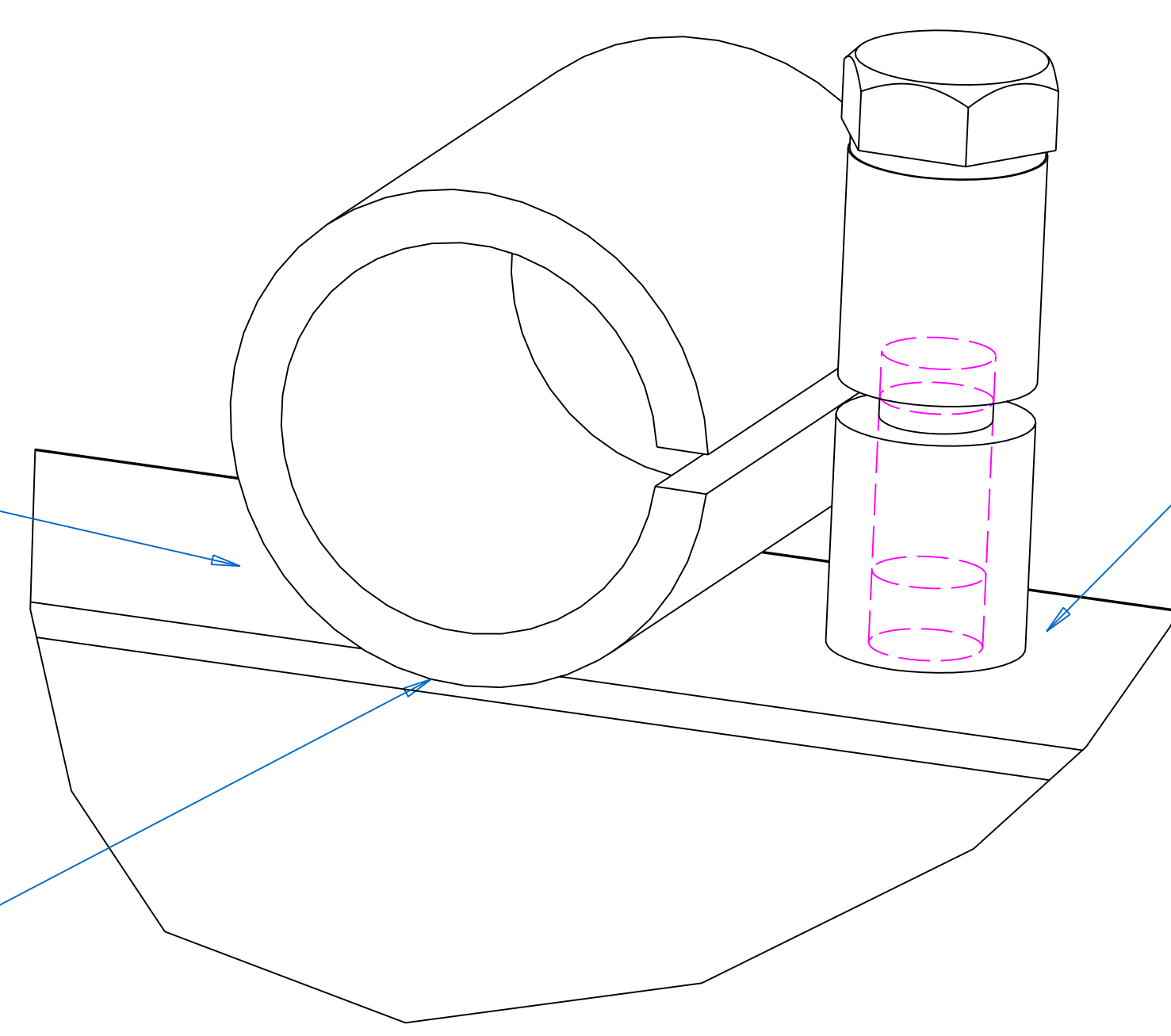
DETAIL FORWARD WIRE BUNDLE PASSAGE
SCALE 2.000



DETAIL CYCLIC WIRE BUNDLE PASSAGE
SCALE 2.000

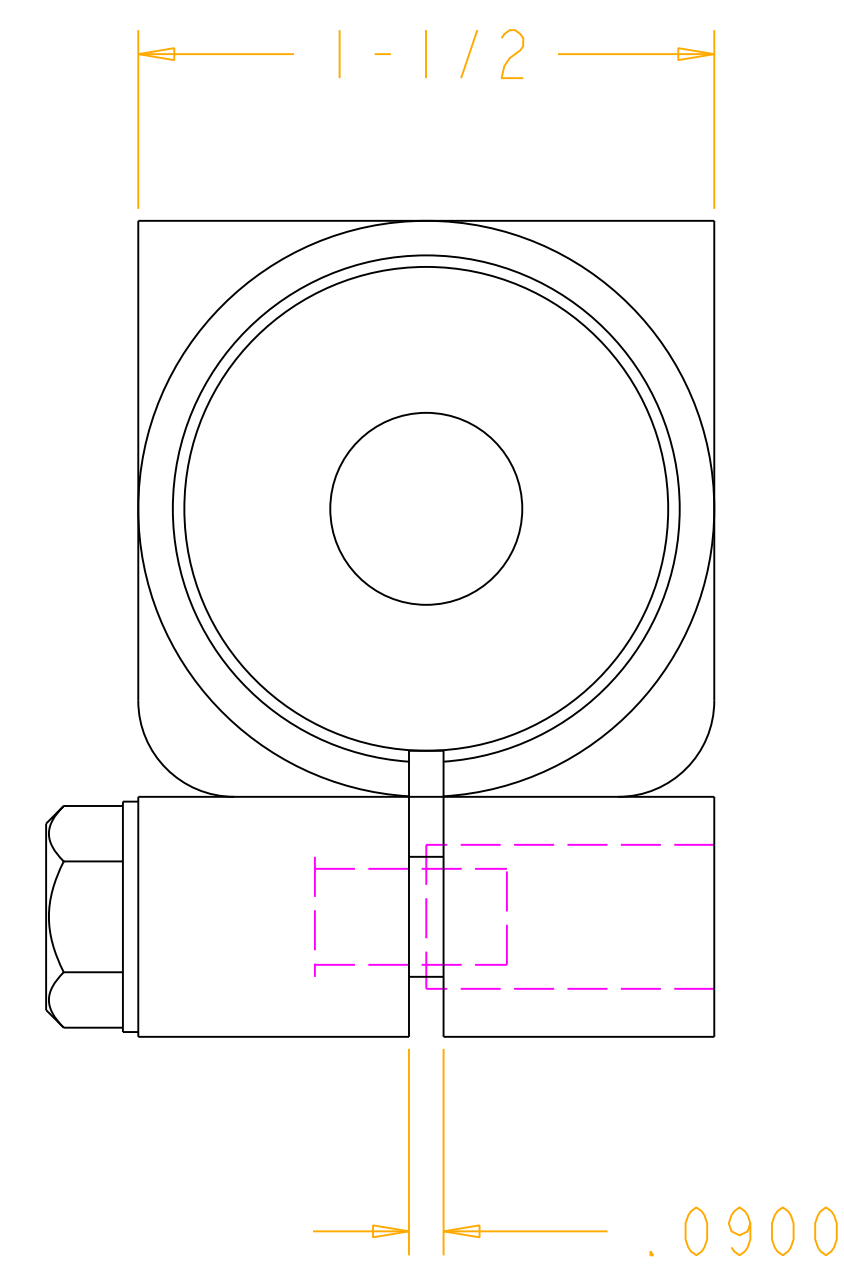
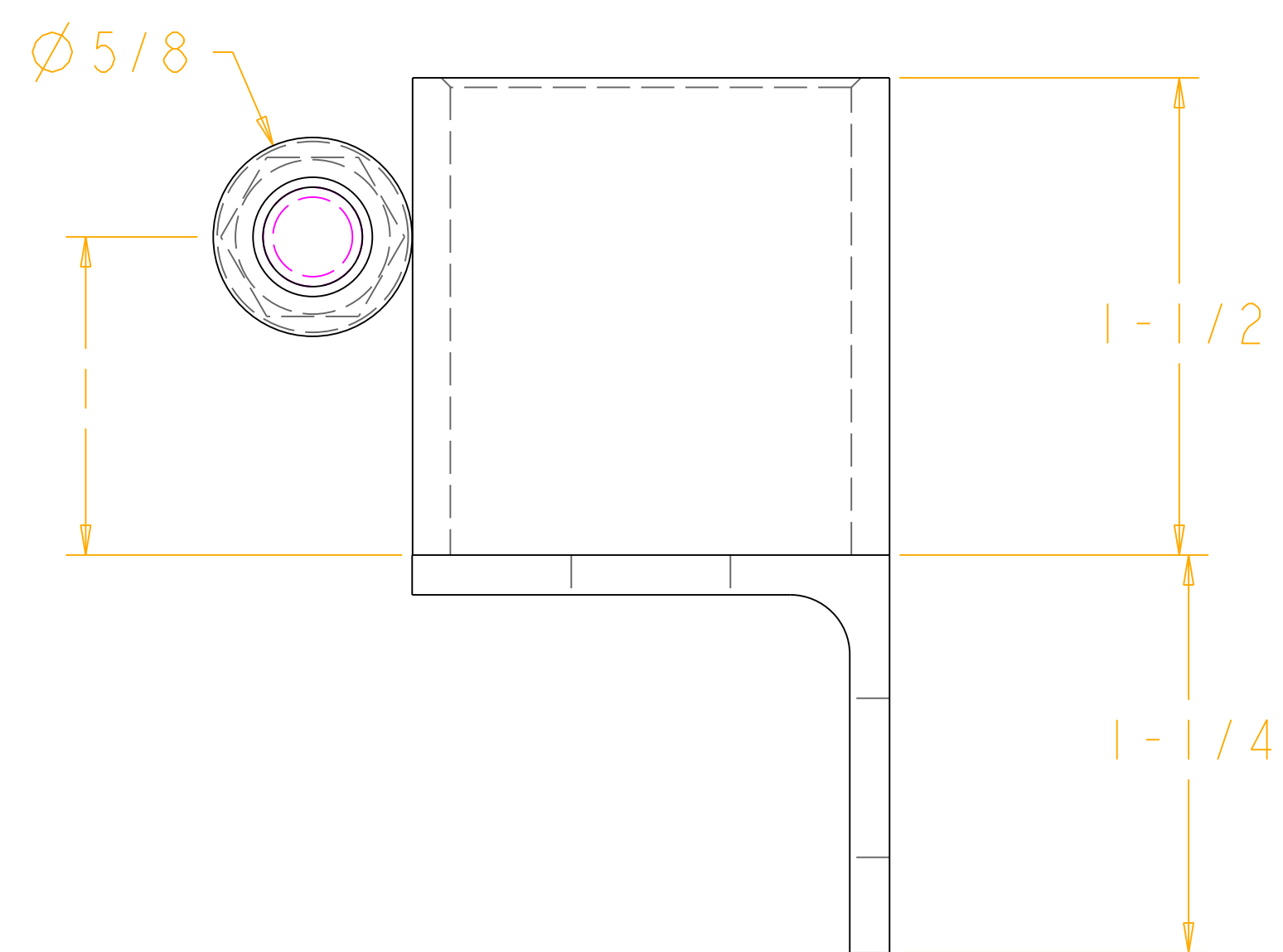
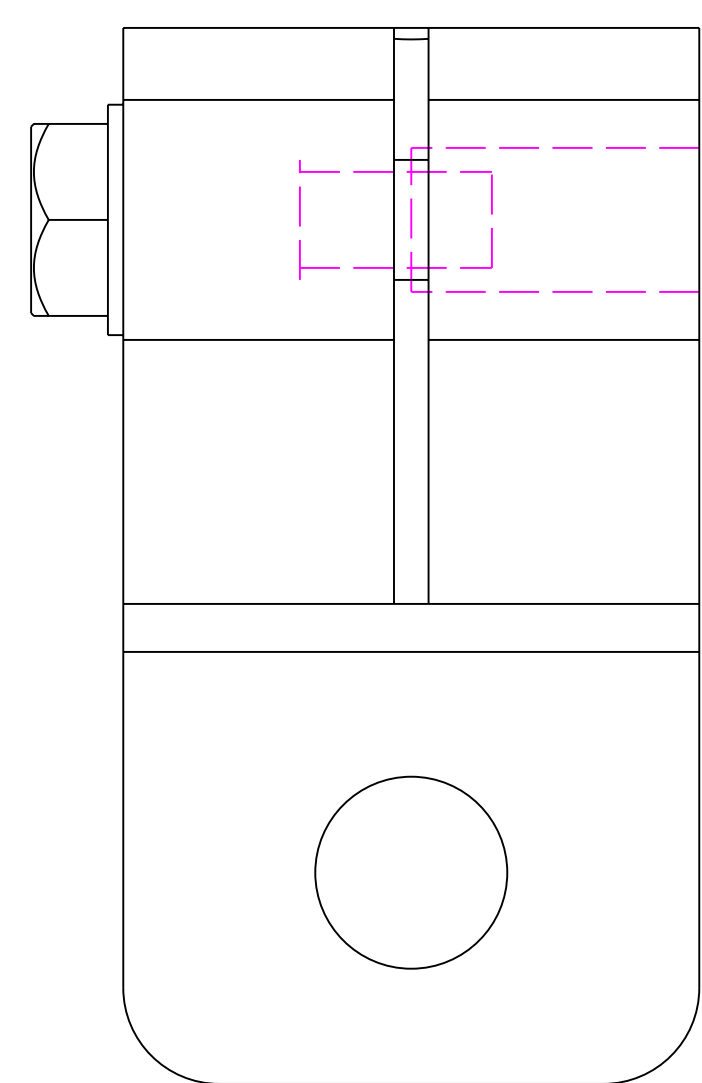


DETAIL AFT WIRE BUNDLE PASSAGE
SCALE 2.000

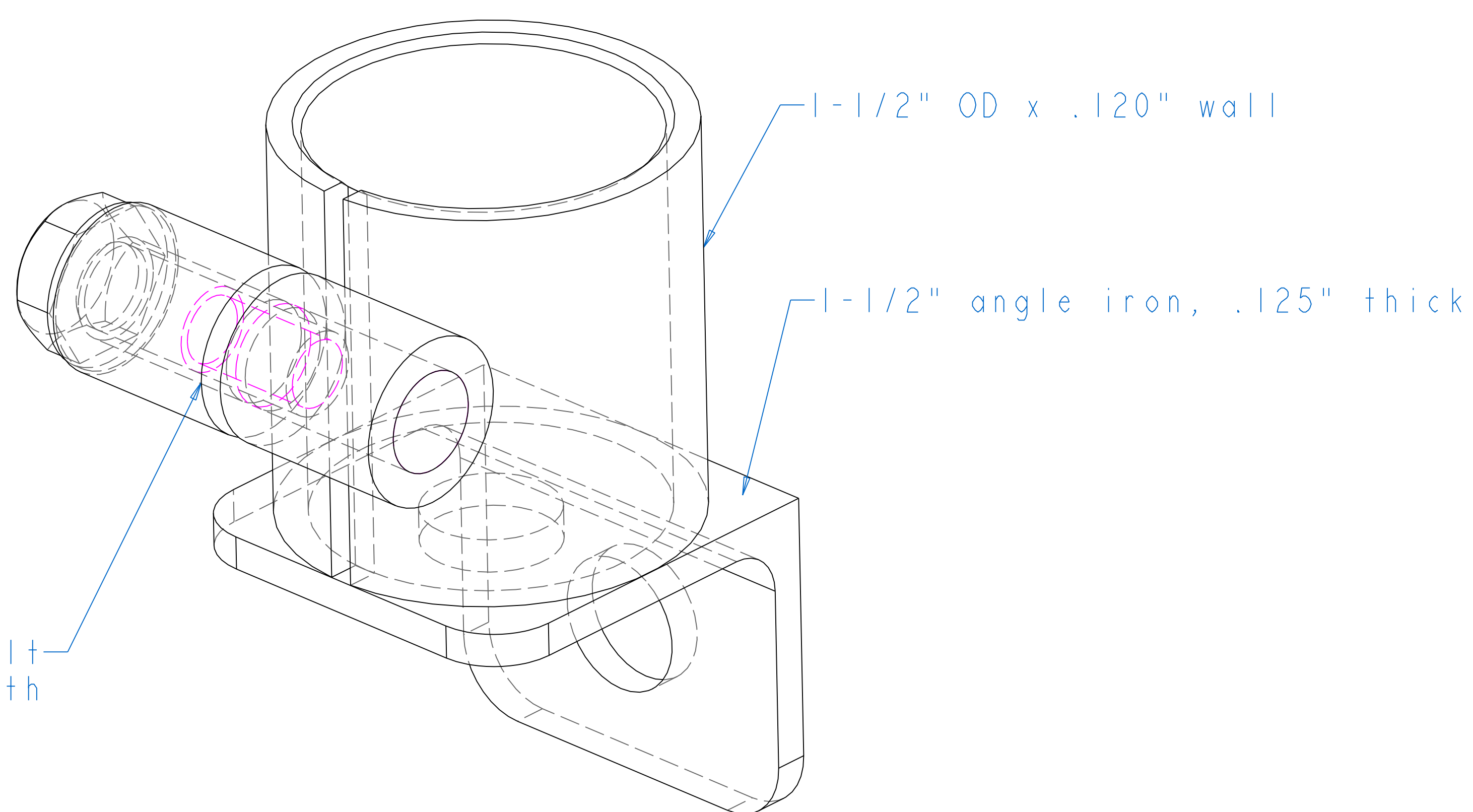


DETAIL WELD DETAIL
SCALE 3.000

SCALE 2.000



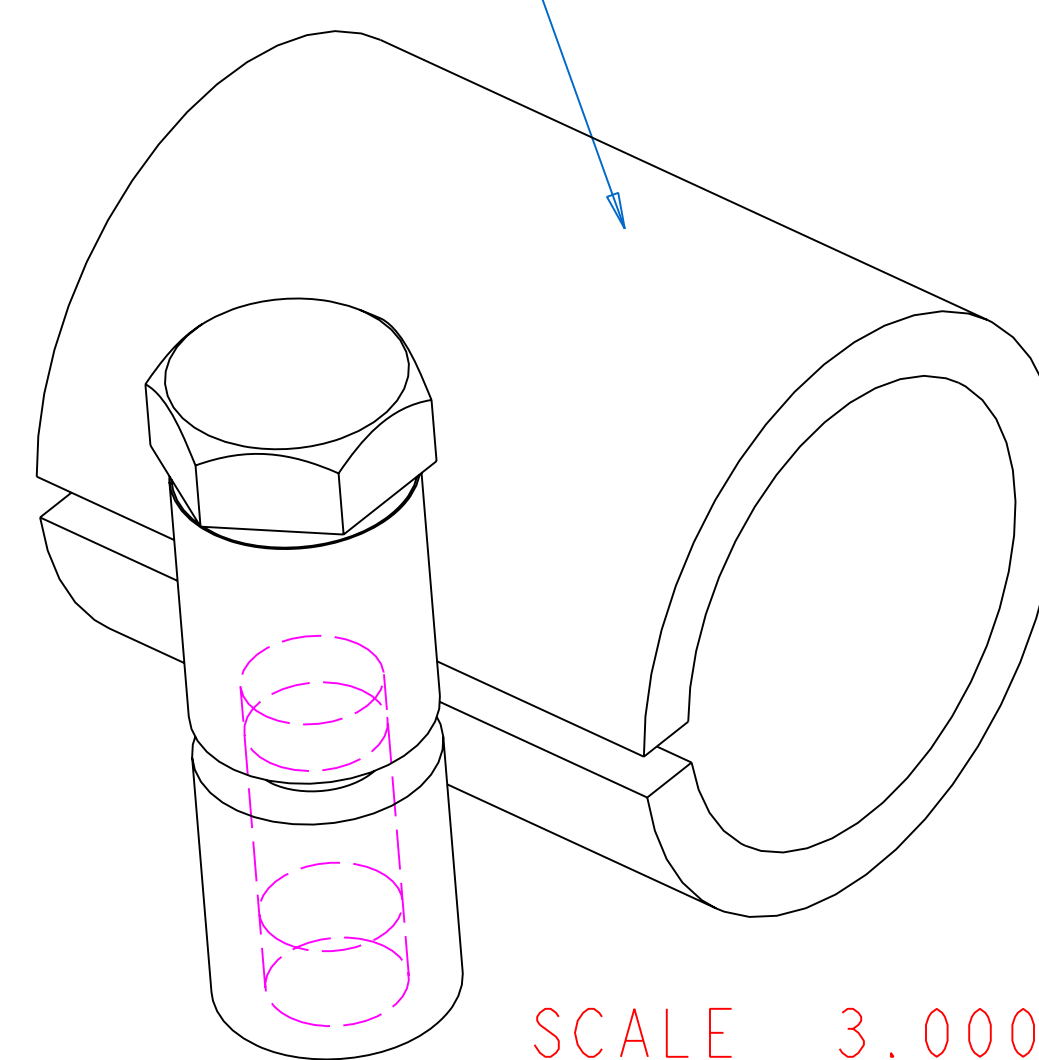
tapped spud for 3/8 x 24 bolt
tap thru full, drill .375 to mid-depth



SCALE 3.000

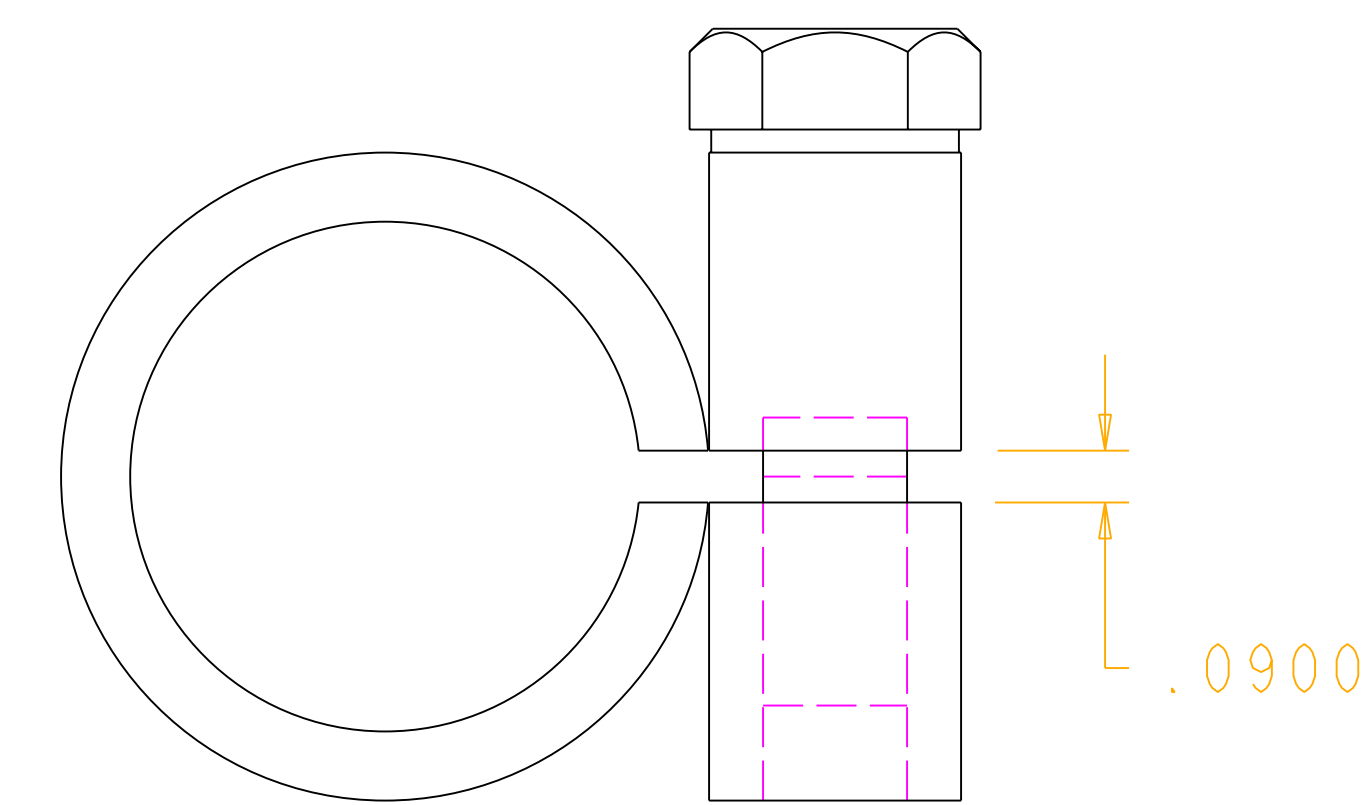
Collective Mount Weldment

1-1/8" OD x .120 wall

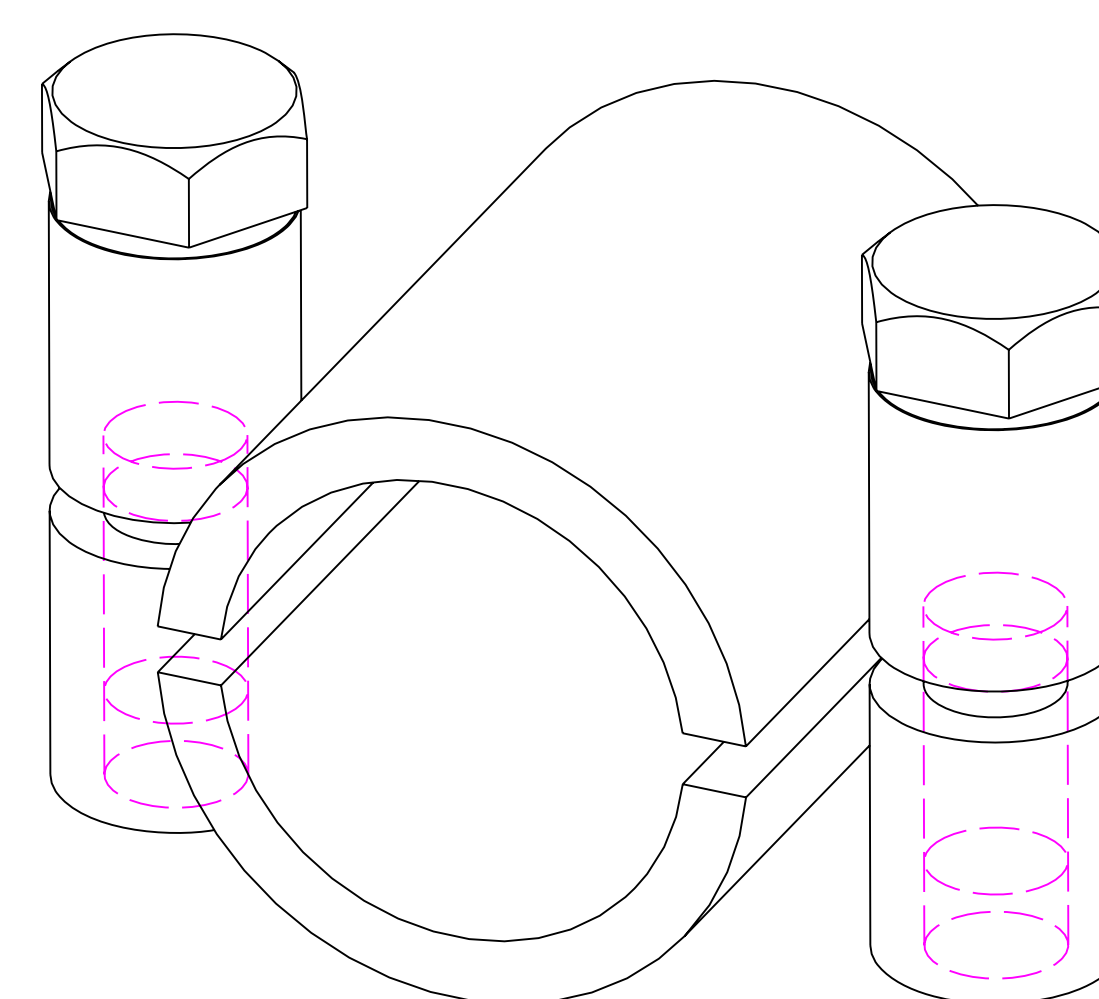


SCALE 3.000

Split Clamp Single (shown: Right)

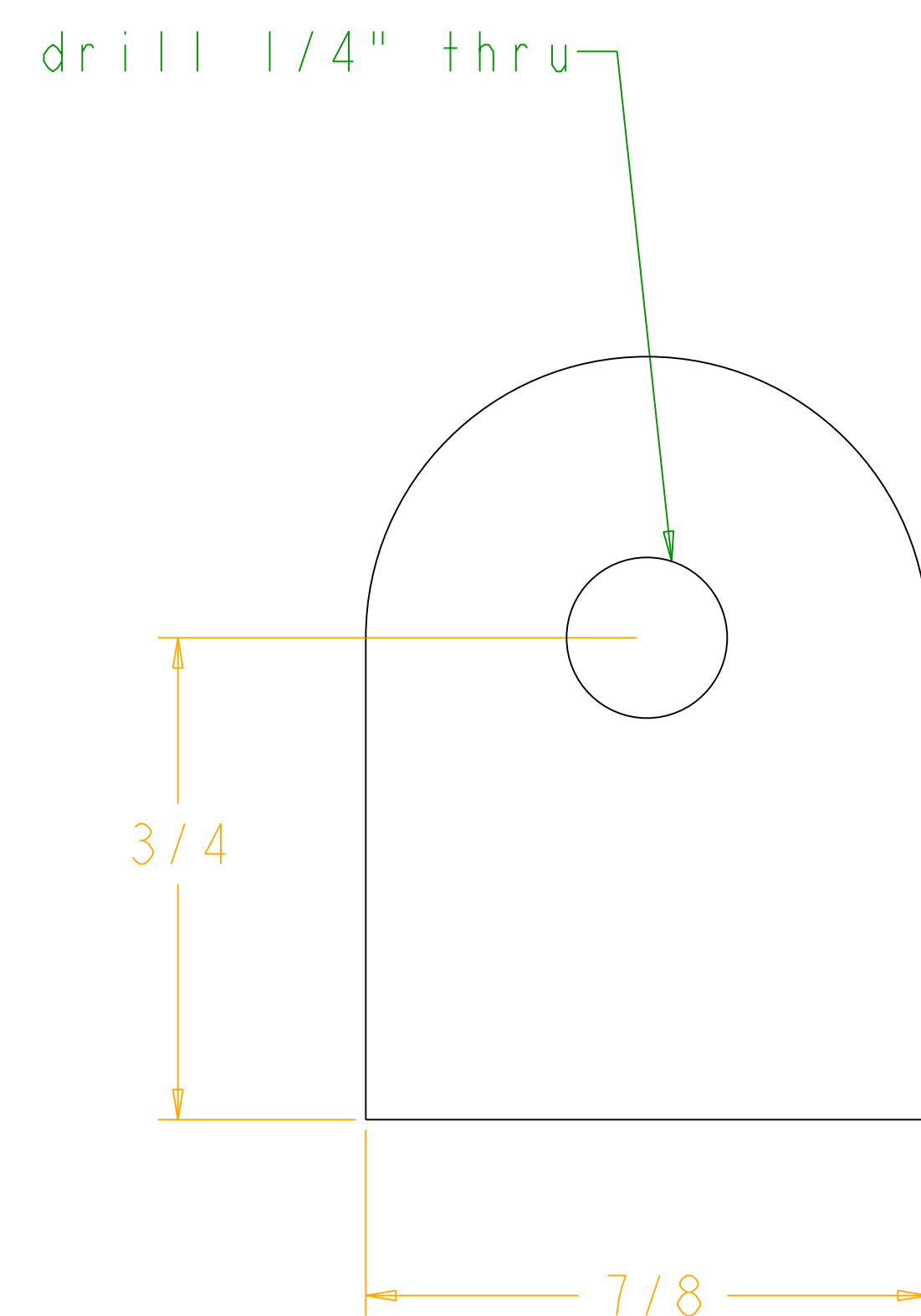
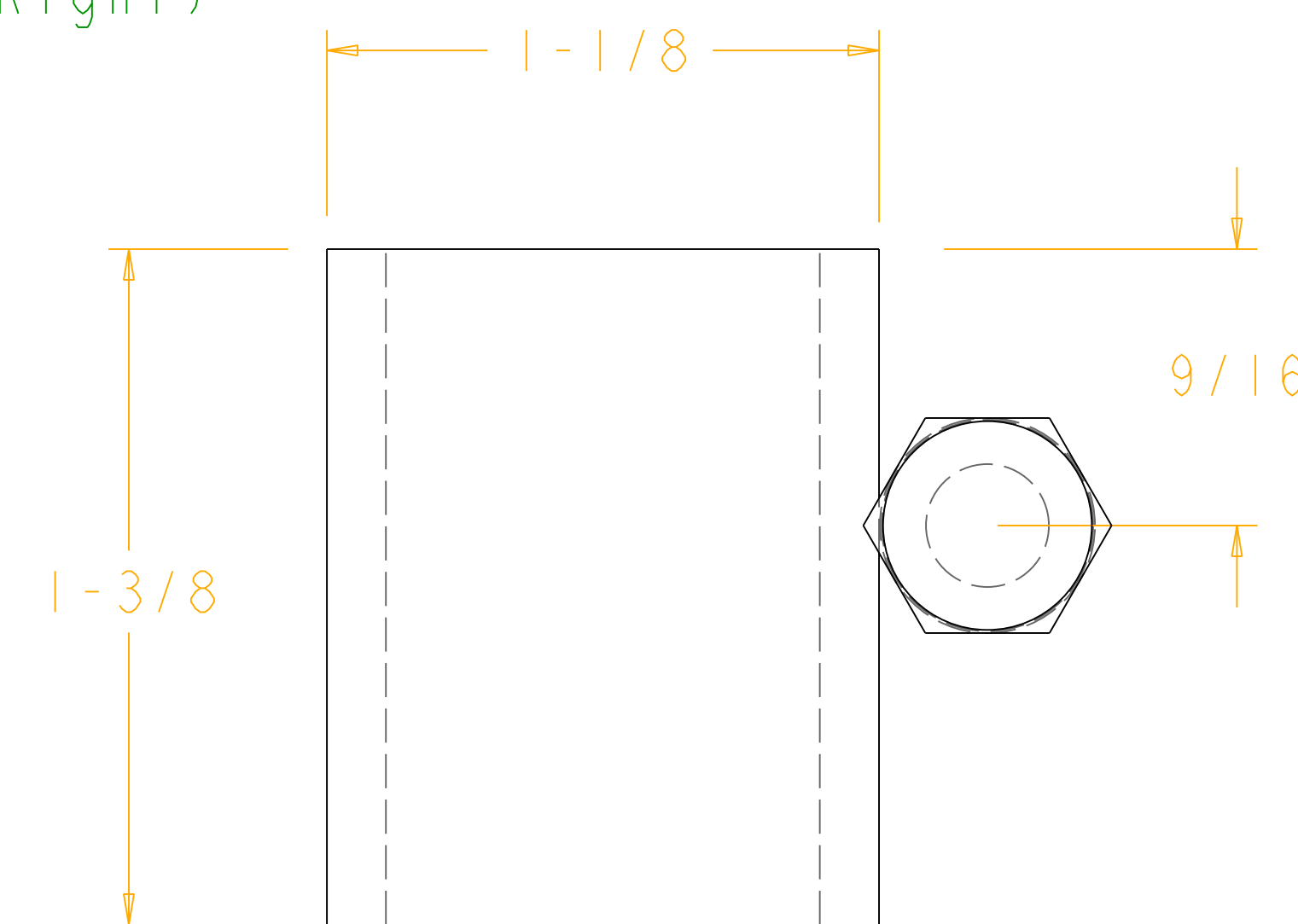


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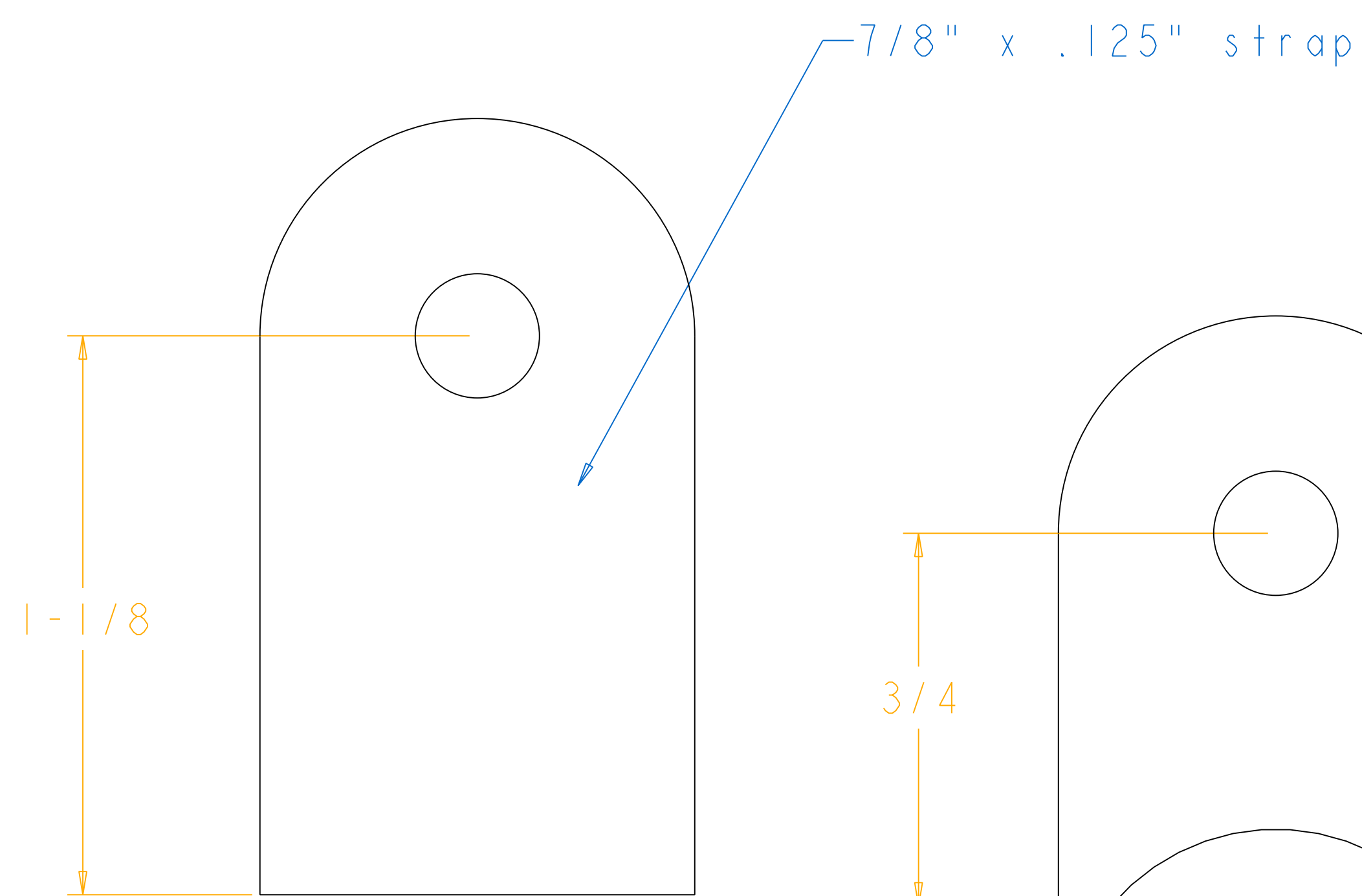
SCALE 3.000

Split Clamp Double



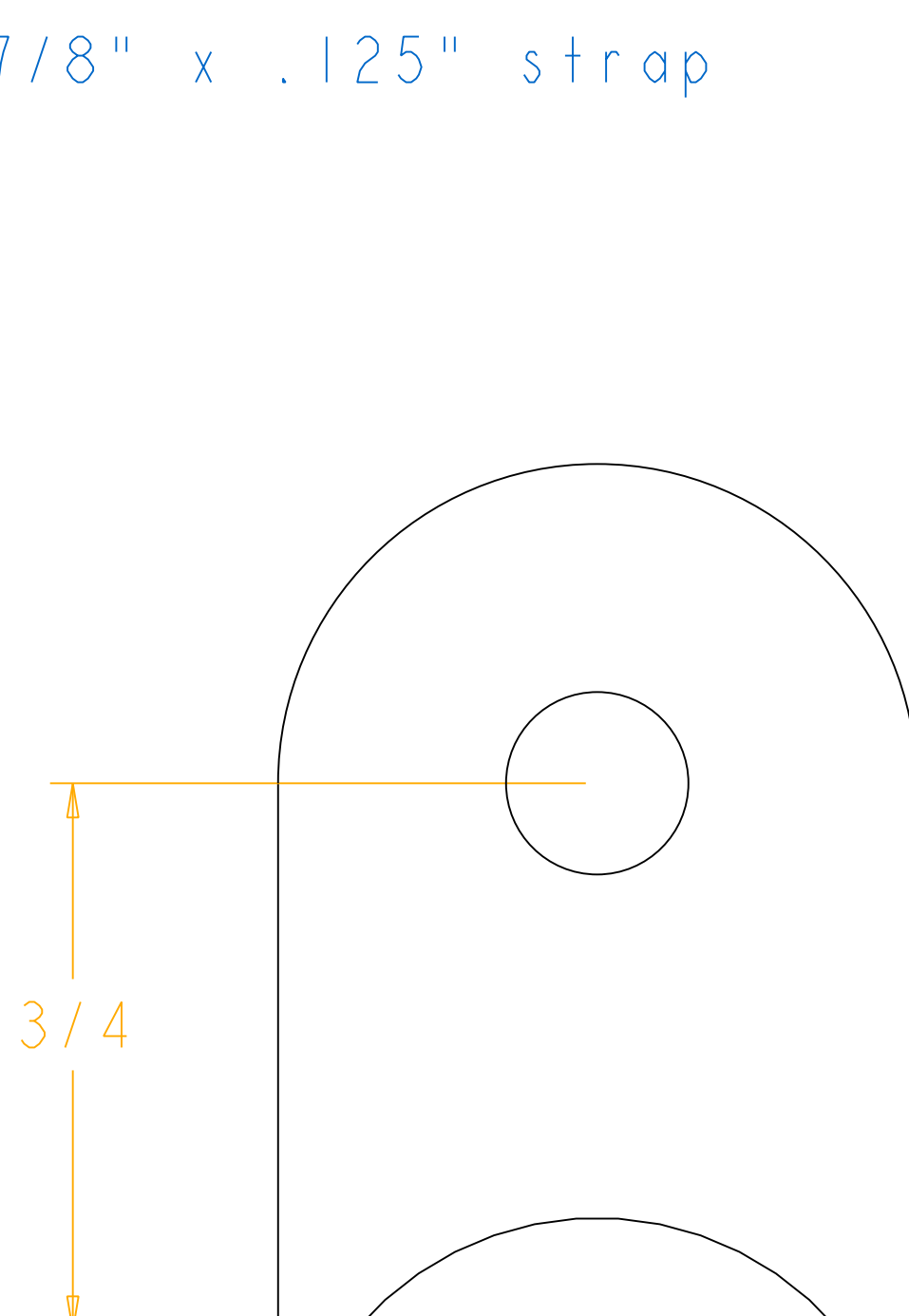
SCALE 4.000

Pan Tab, short



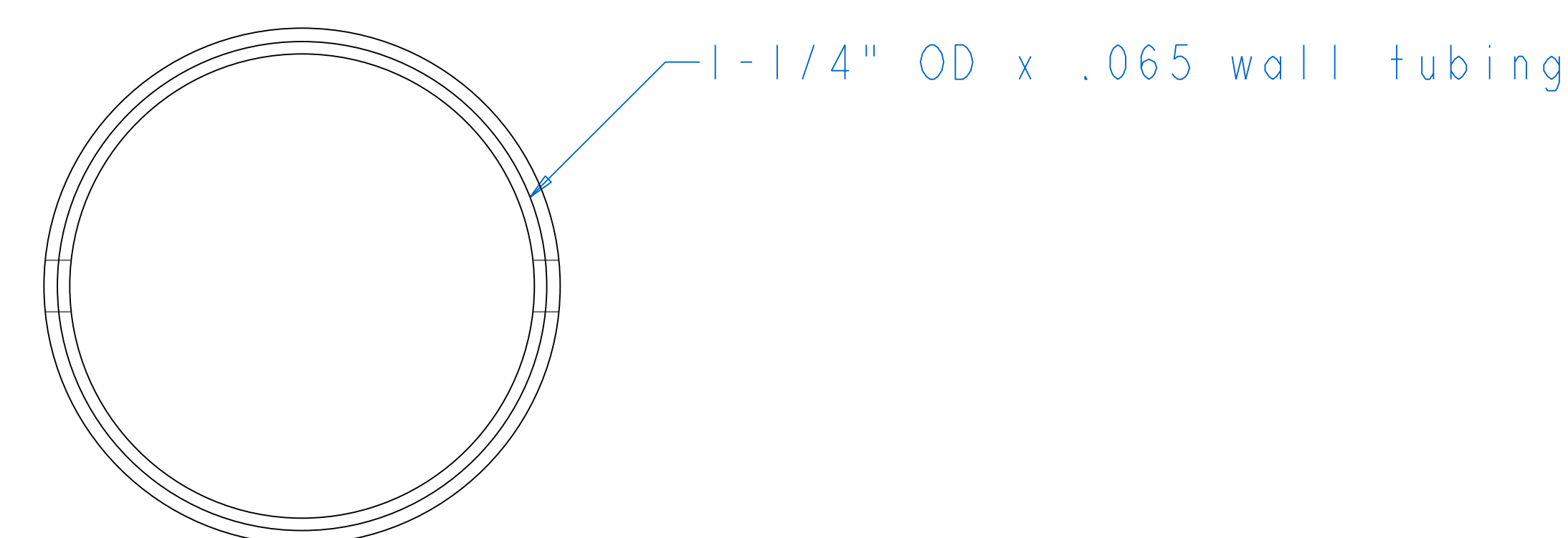
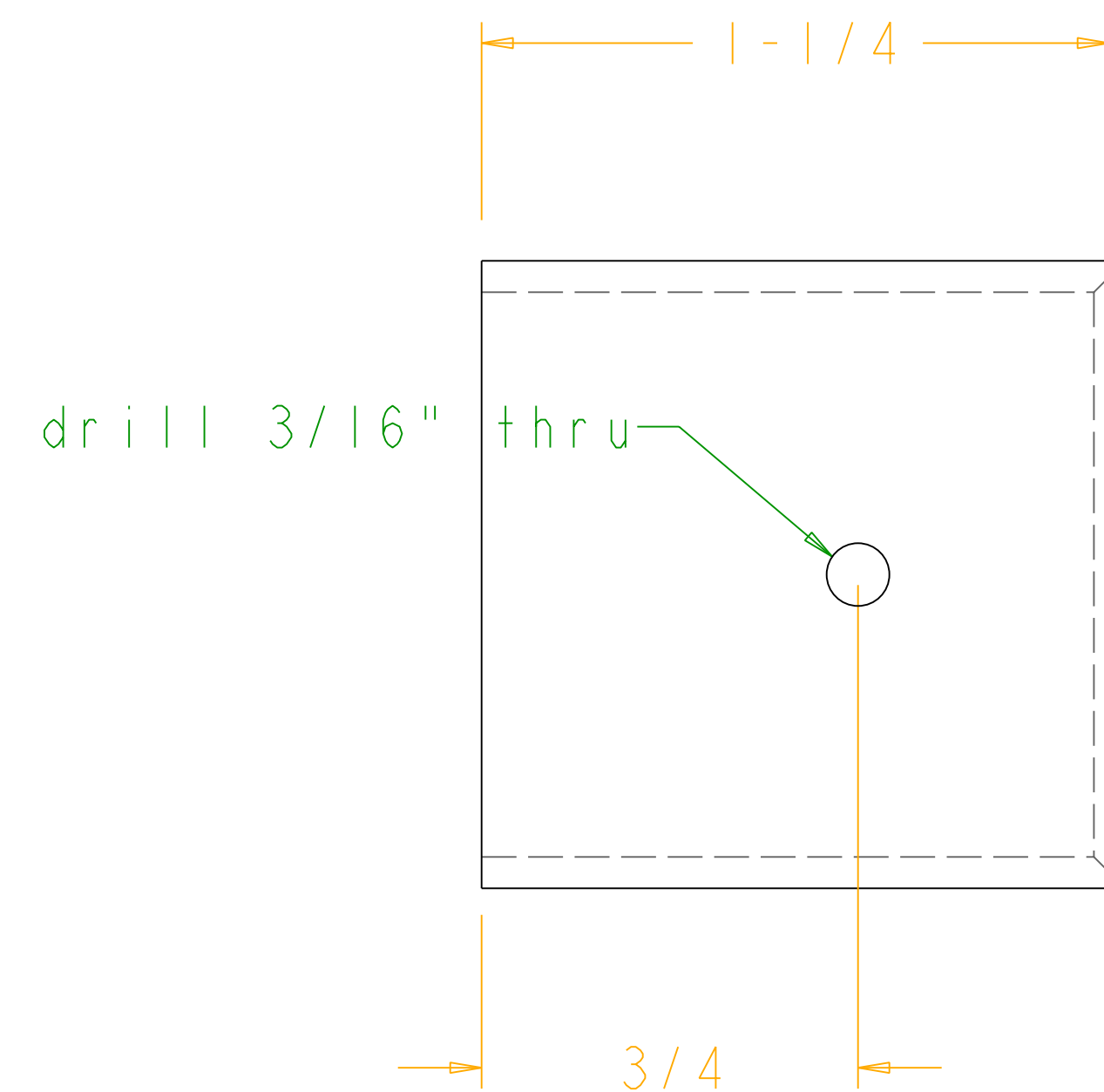
SCALE 4.000

Pan Tab, long



SCALE 4.000

Pan Tab, coped



SCALE 3.000

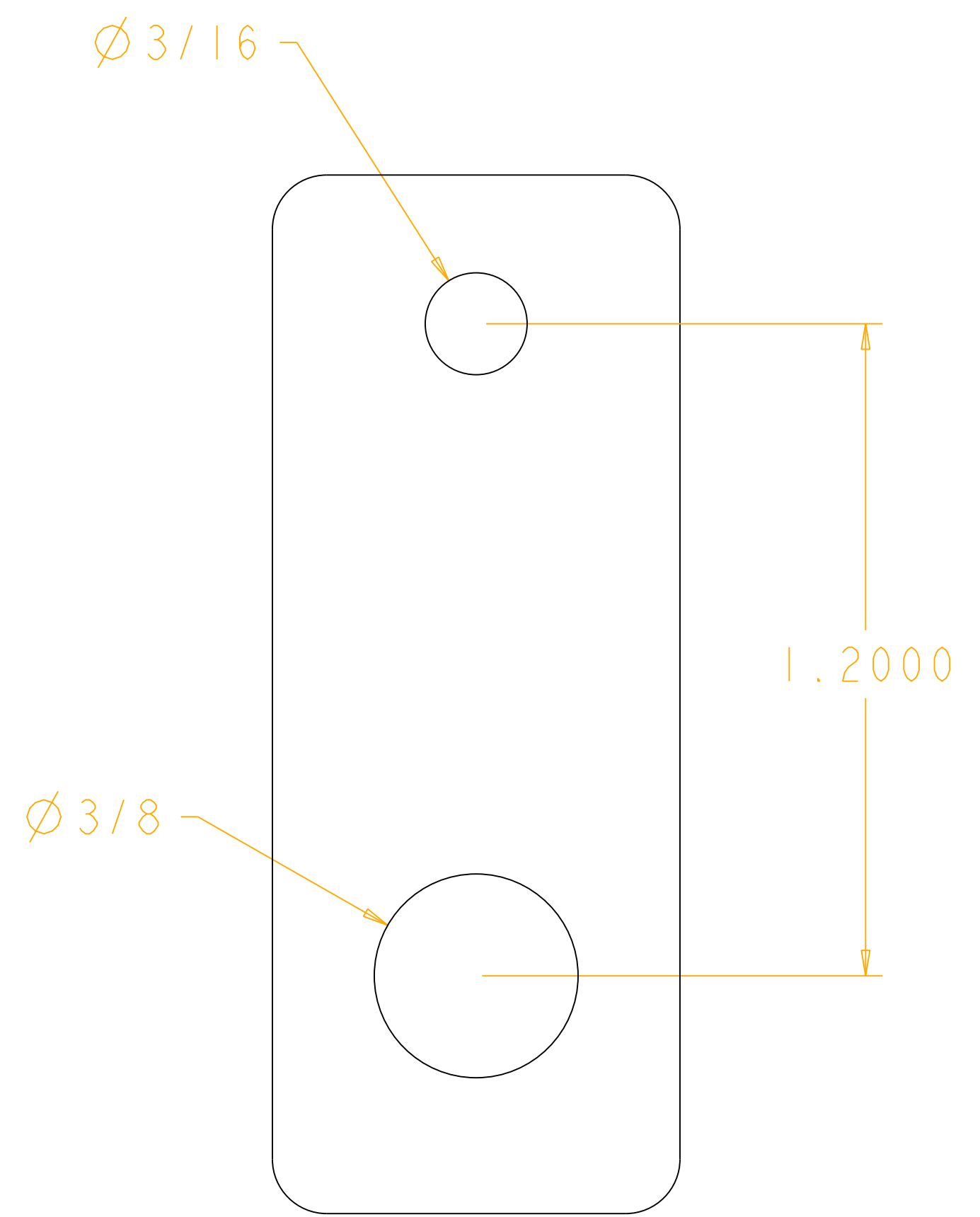
Seat Mount Spud

heli-chair

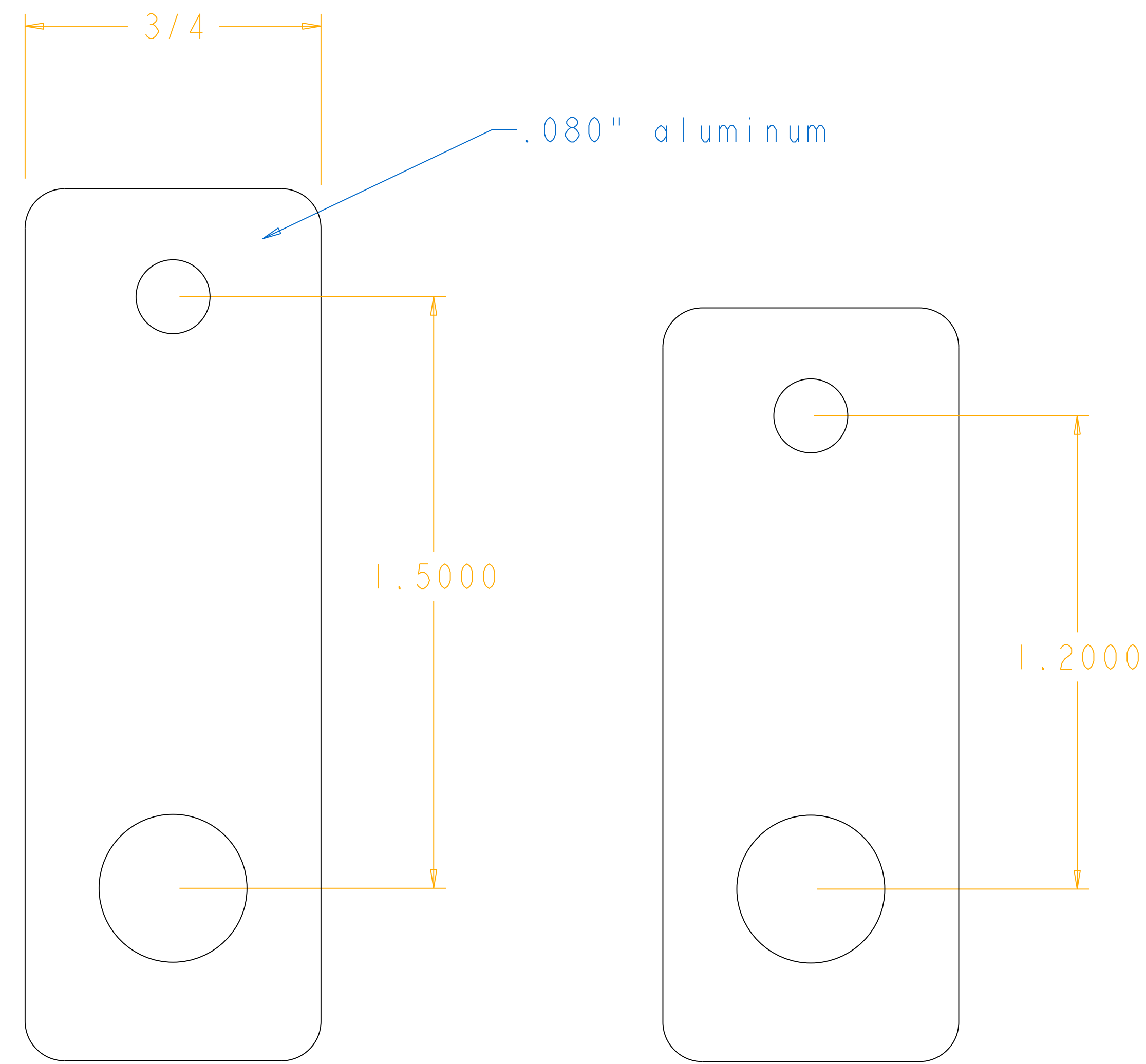
Mechanical Drawing Set

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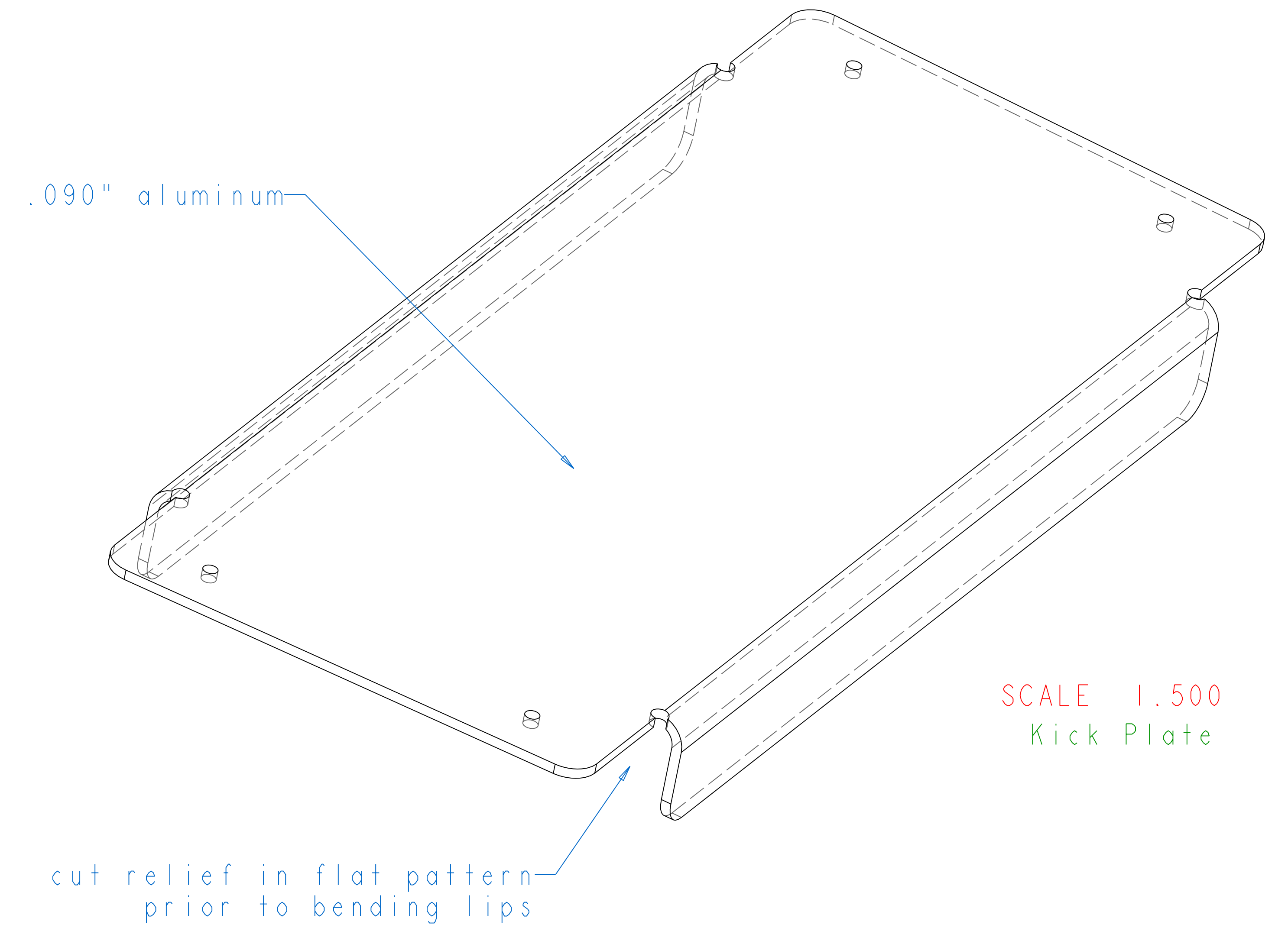


SCALE 4.000
Anti-Torque Pedals
Potentiometer Positioning Plate

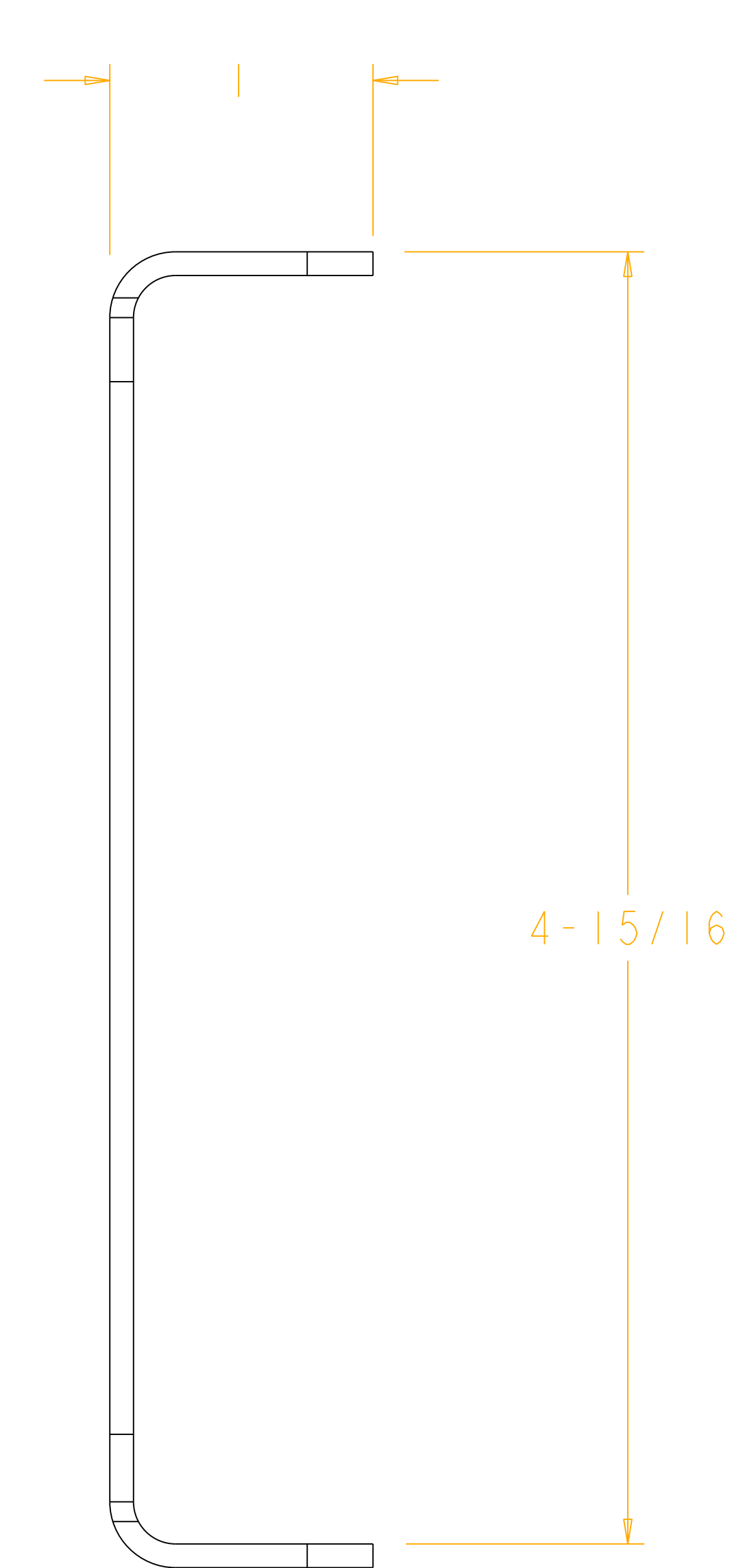
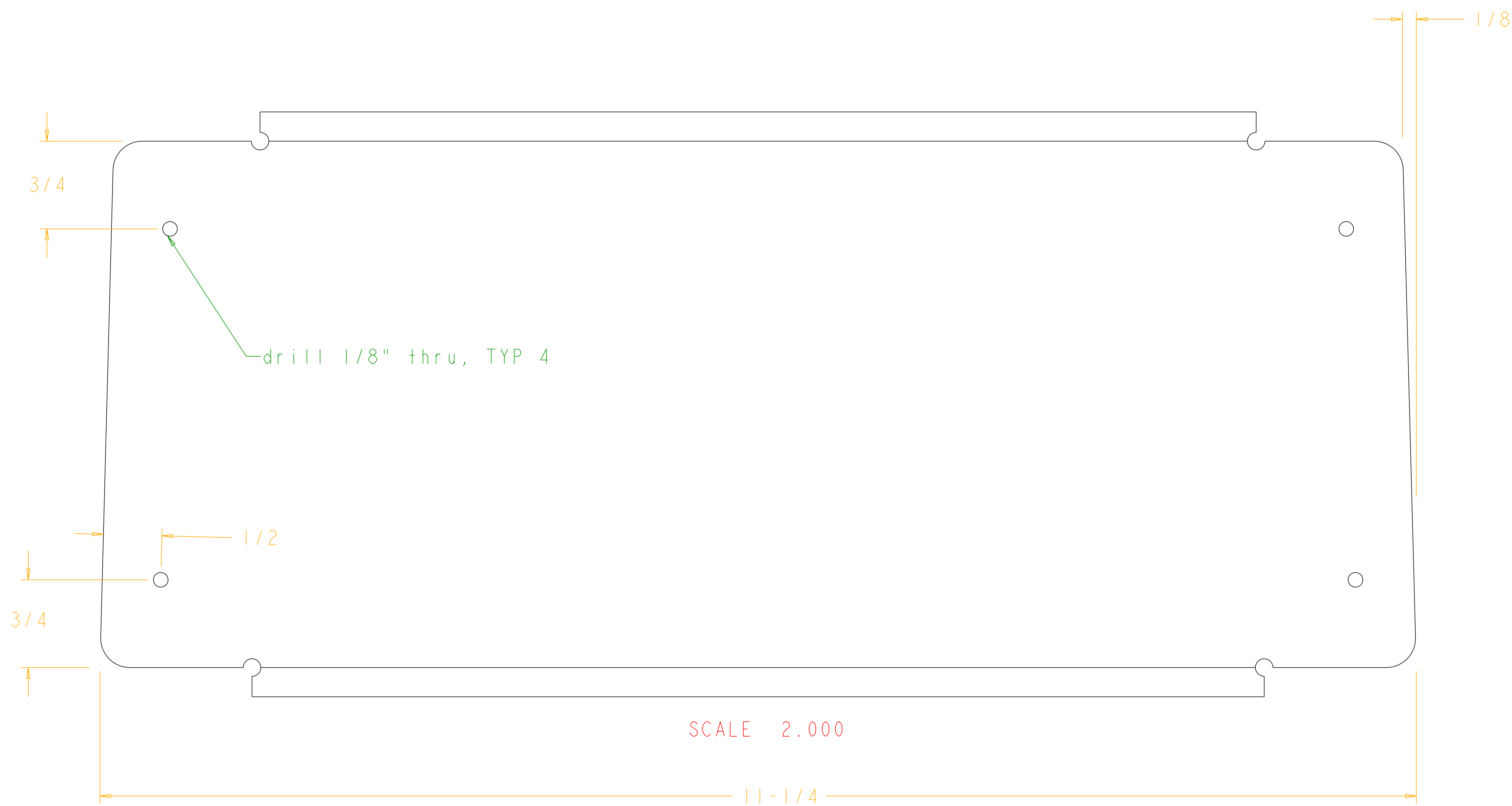


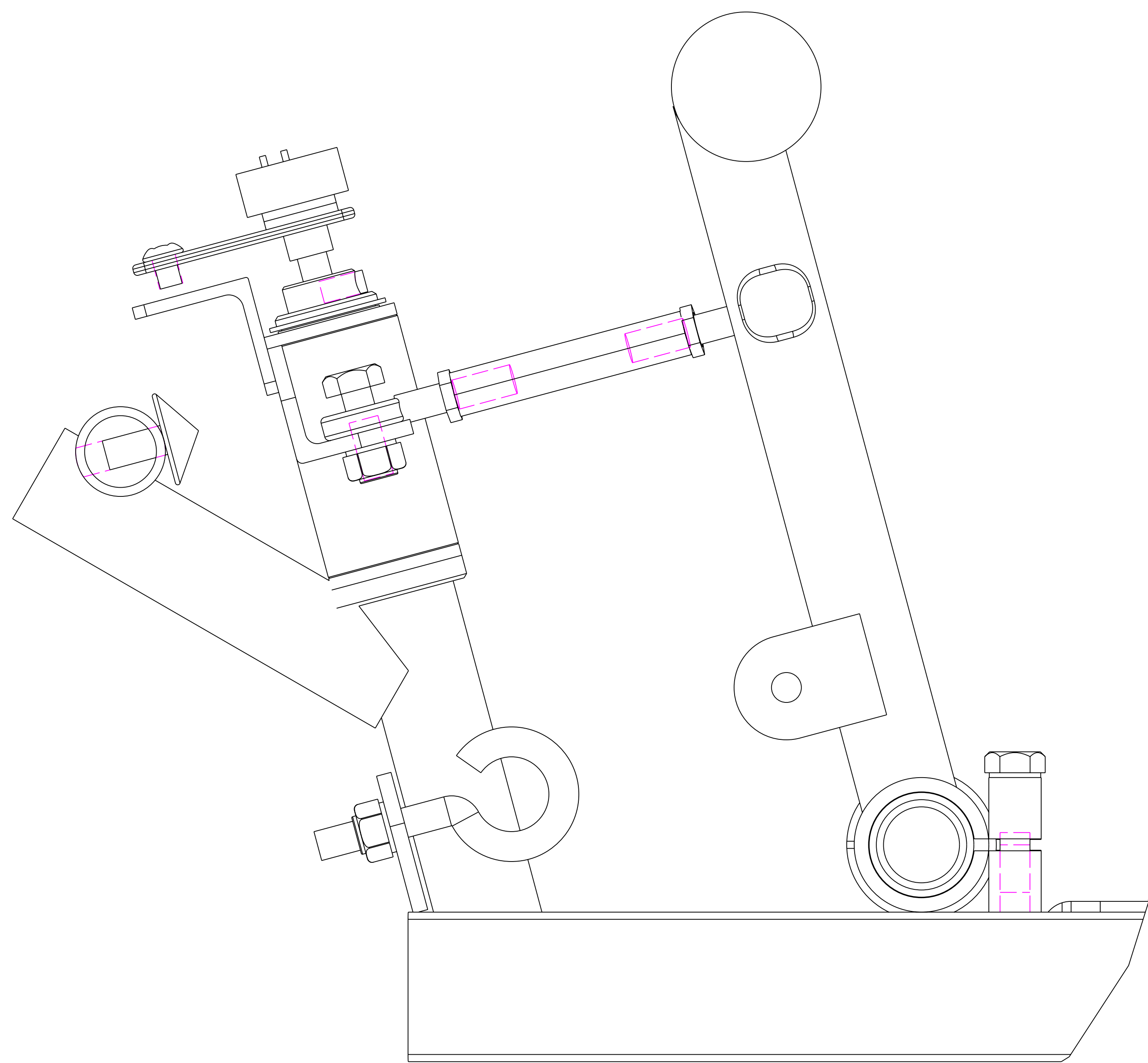
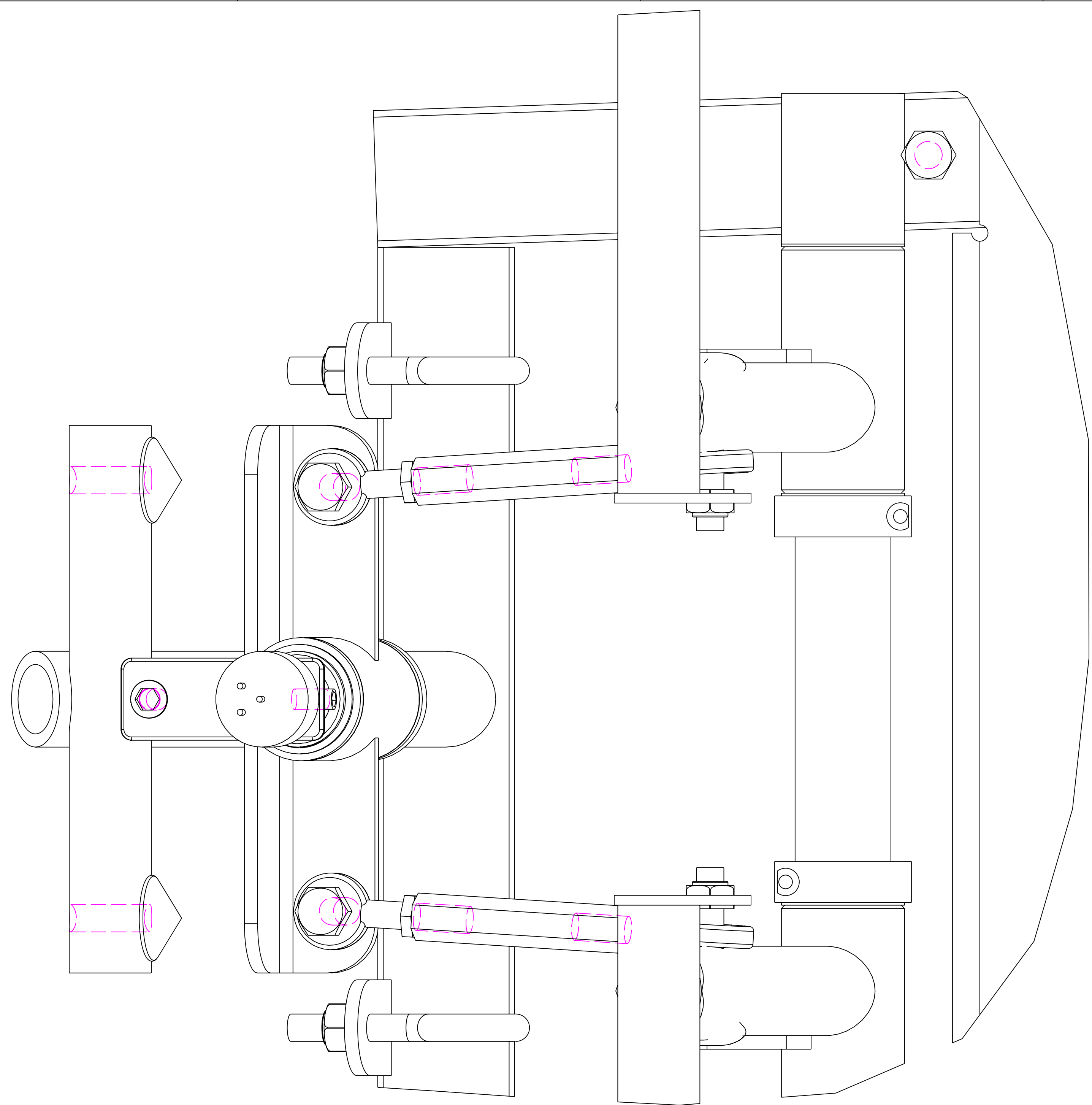
SCALE 4.000
Cyclic (2 used)

SCALE 4.000
Collective

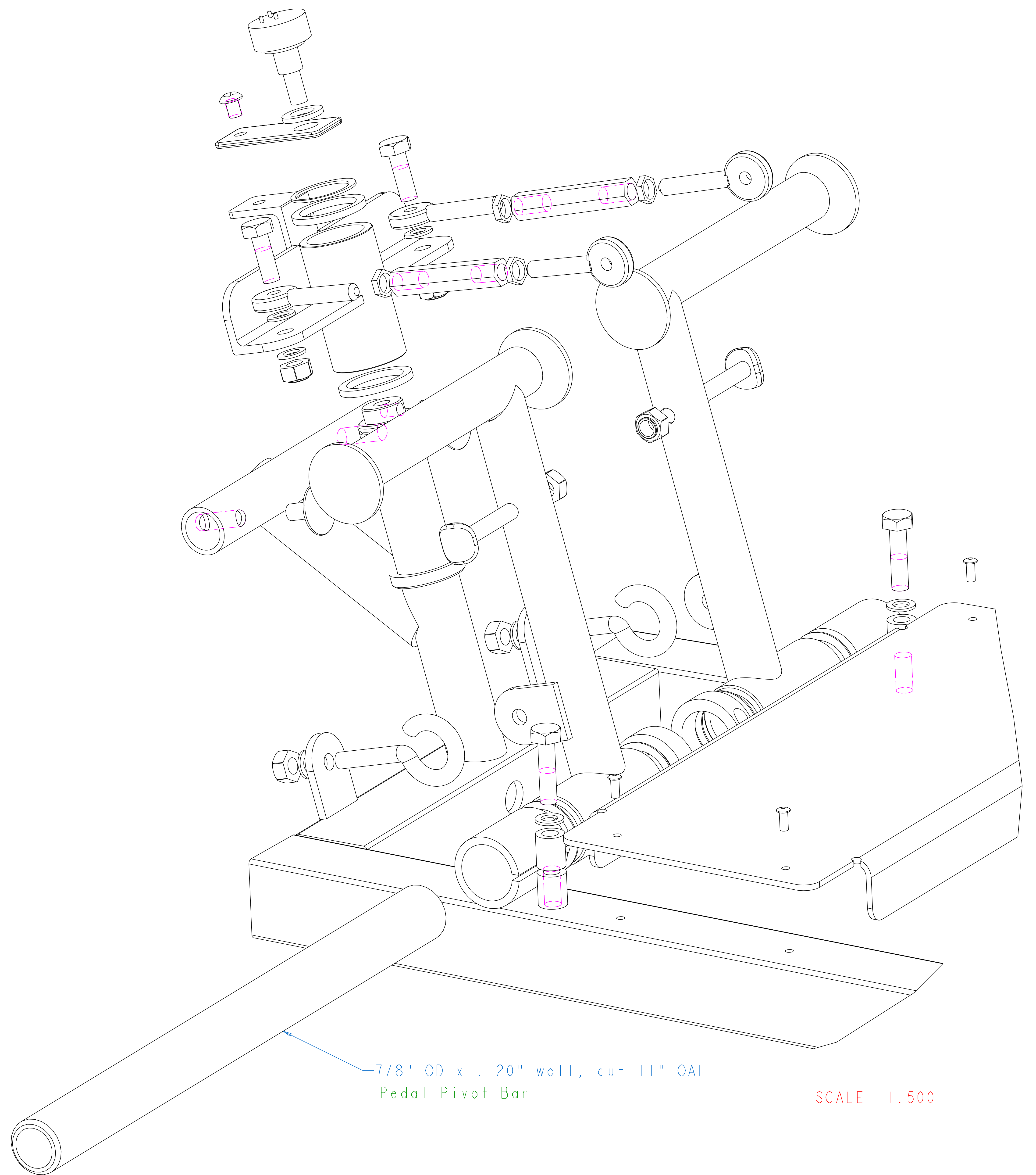


SCALE 1.500
Kick Plate





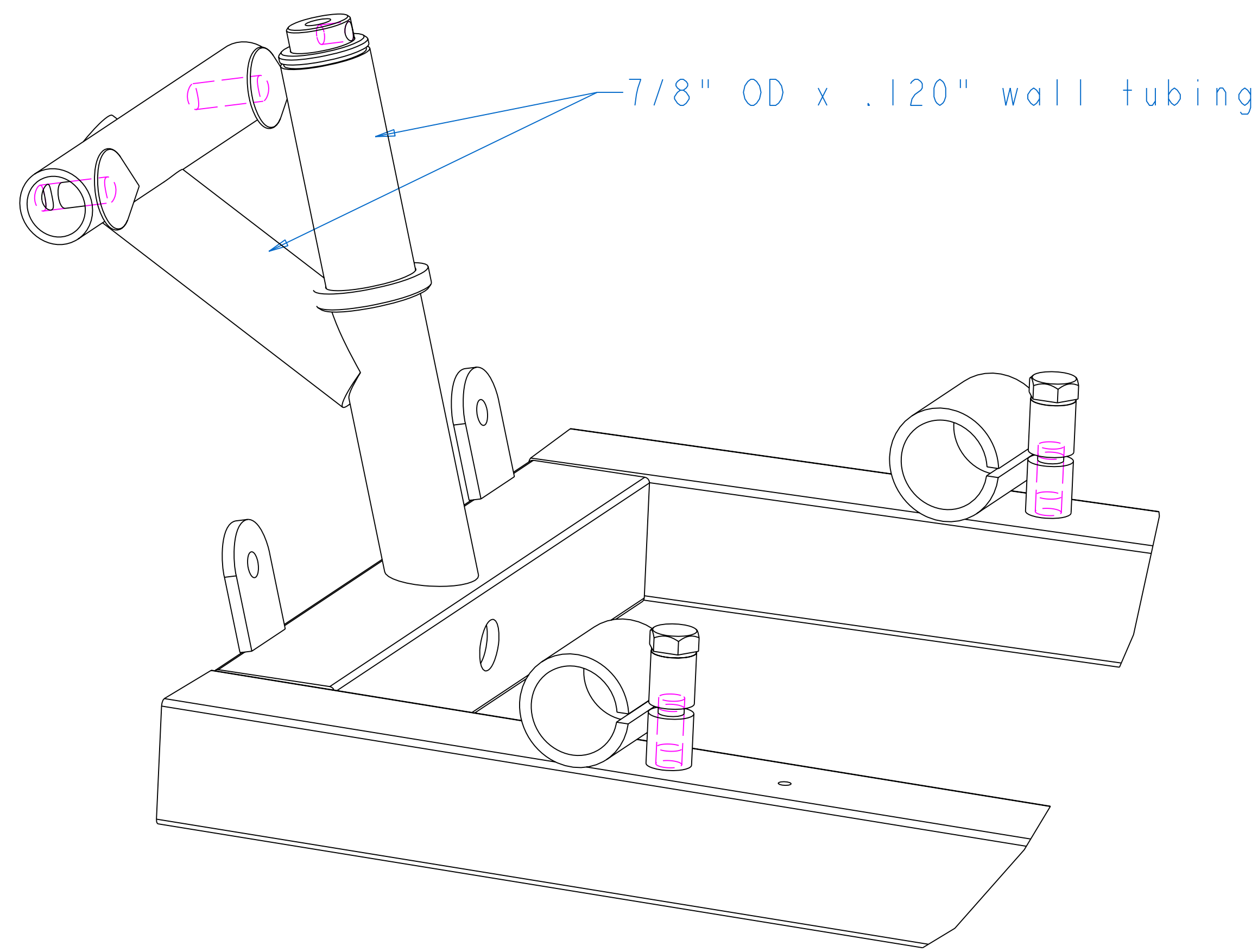
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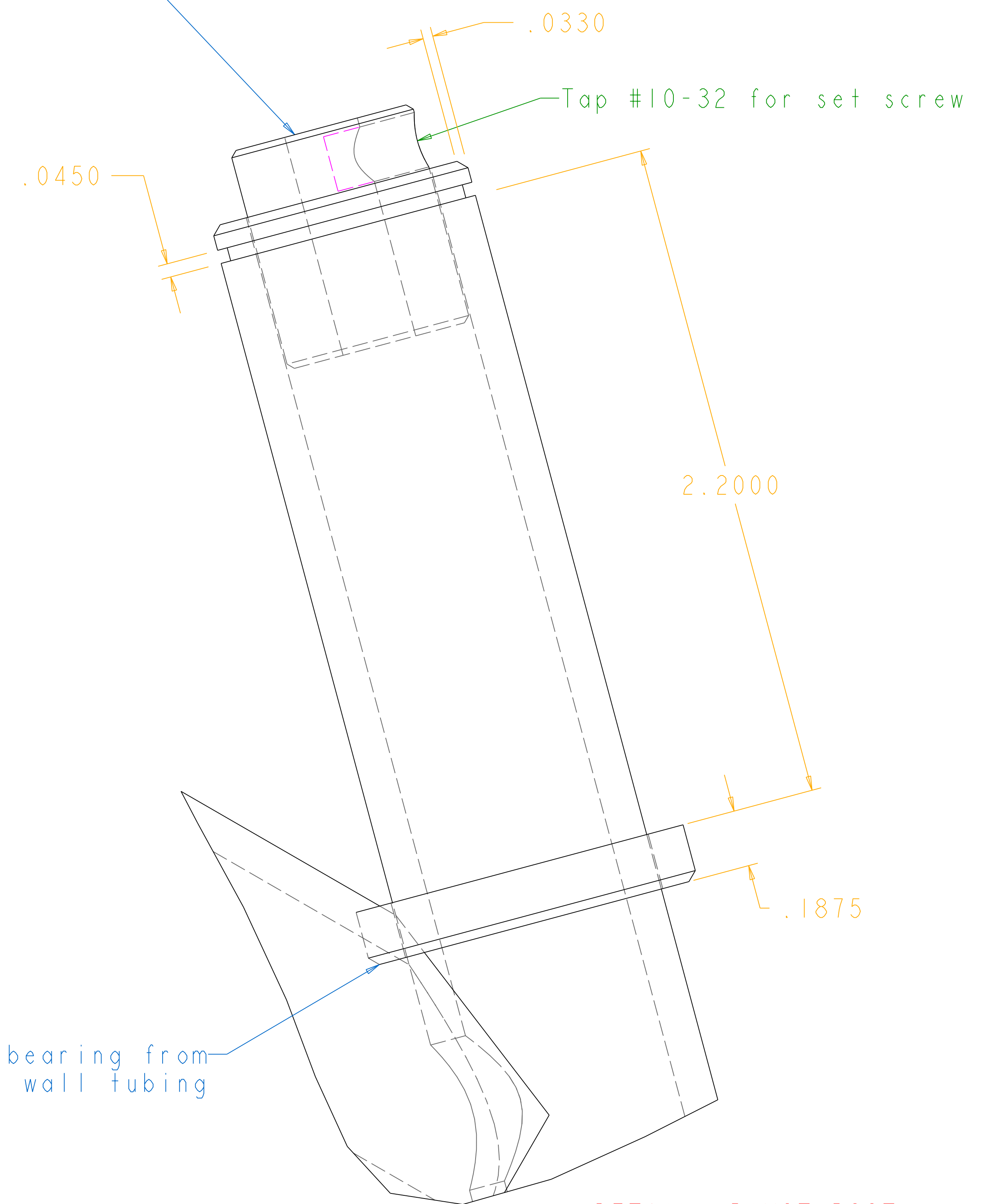
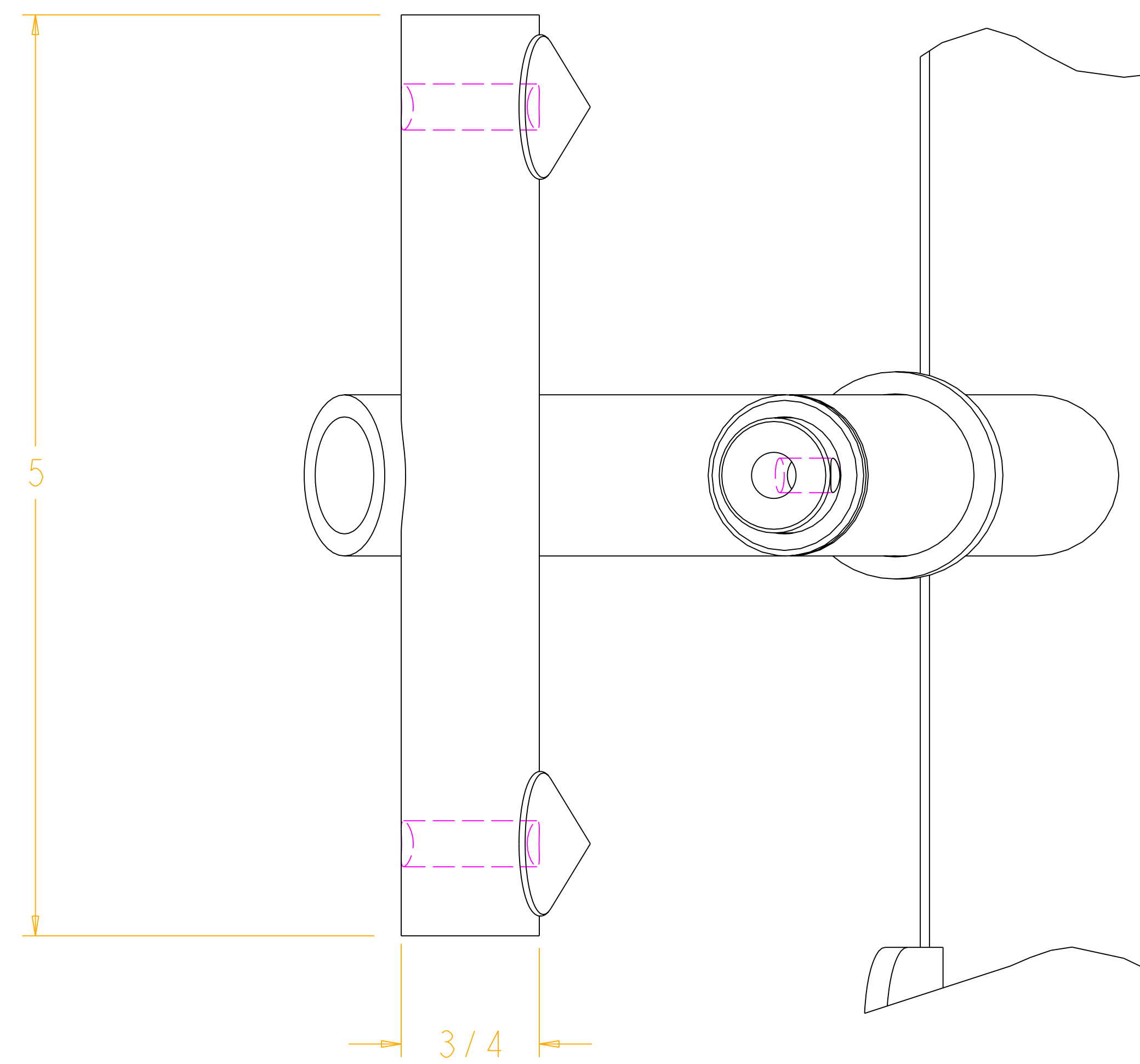
7/8" OD x .120" wall, cut 11" OAL
Pedal Pivot Bar

SCALE 1.500

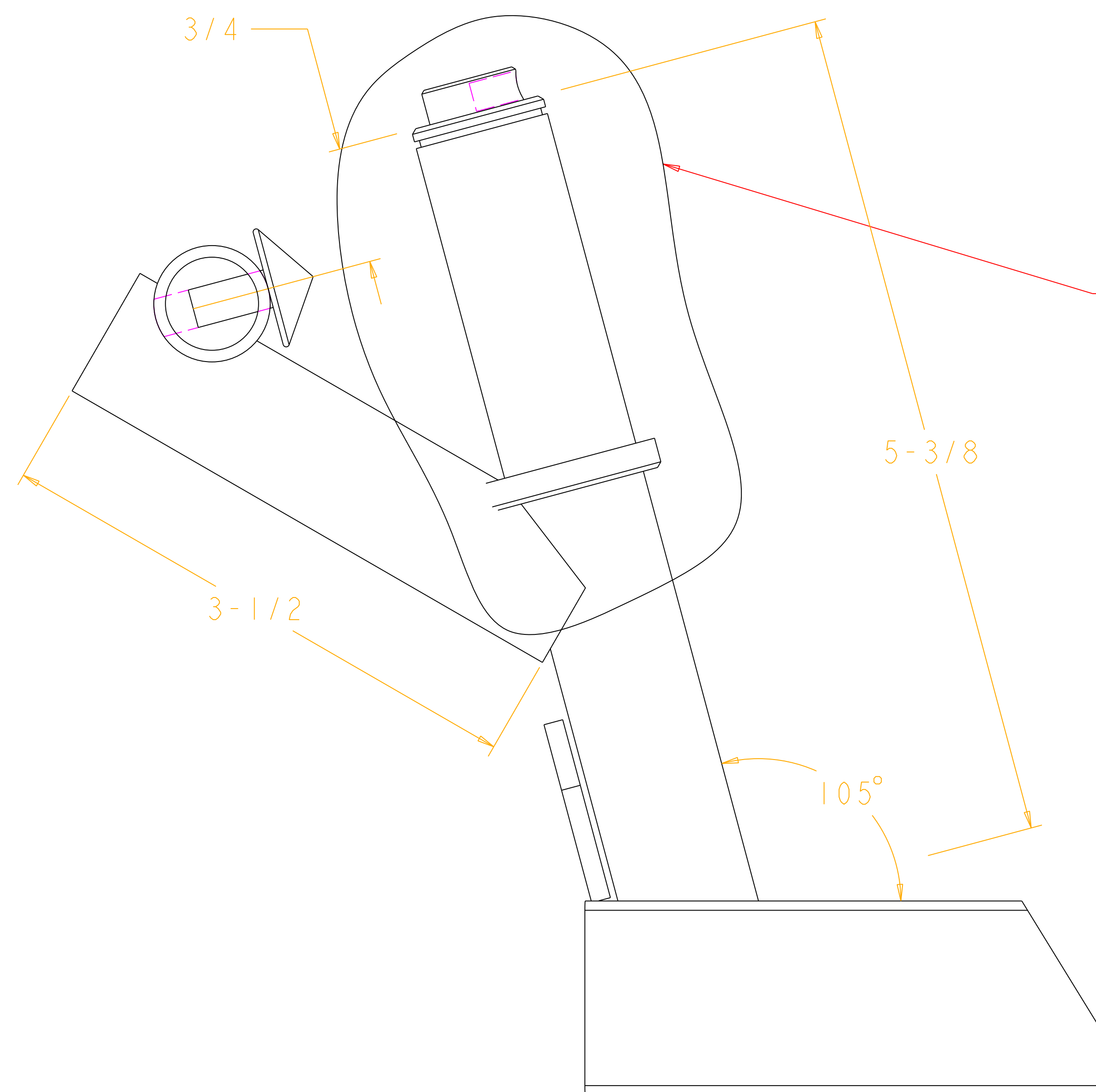
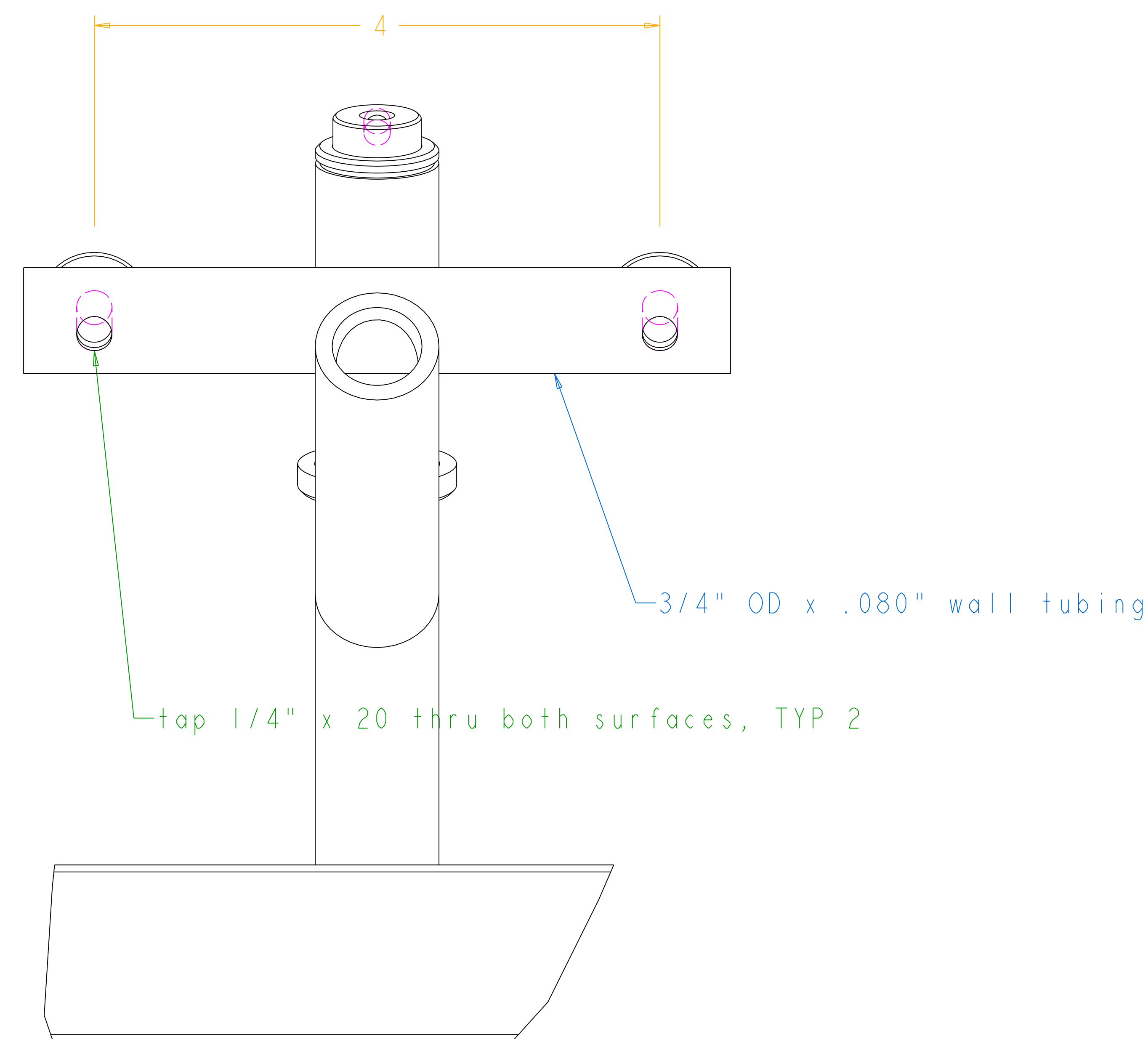
Weld special potentiometer grip collar into tubing and
tighten setscrew to secure potentiometer shaft into collar



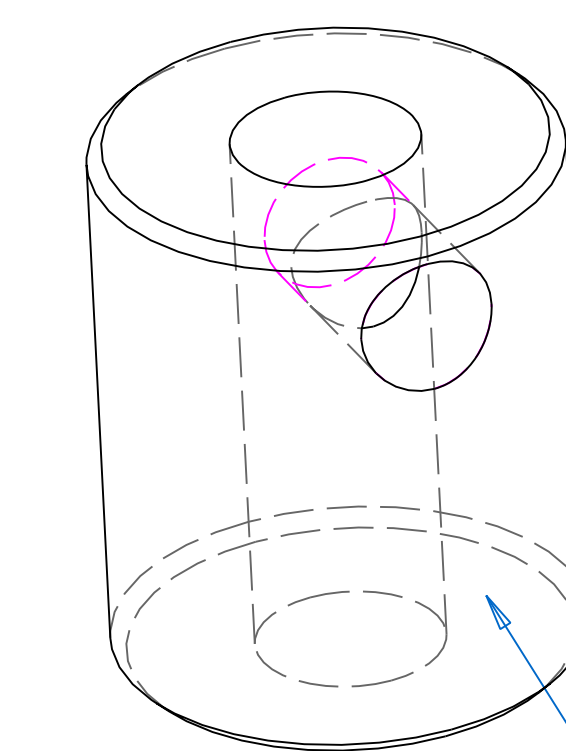
SCALE 1.000



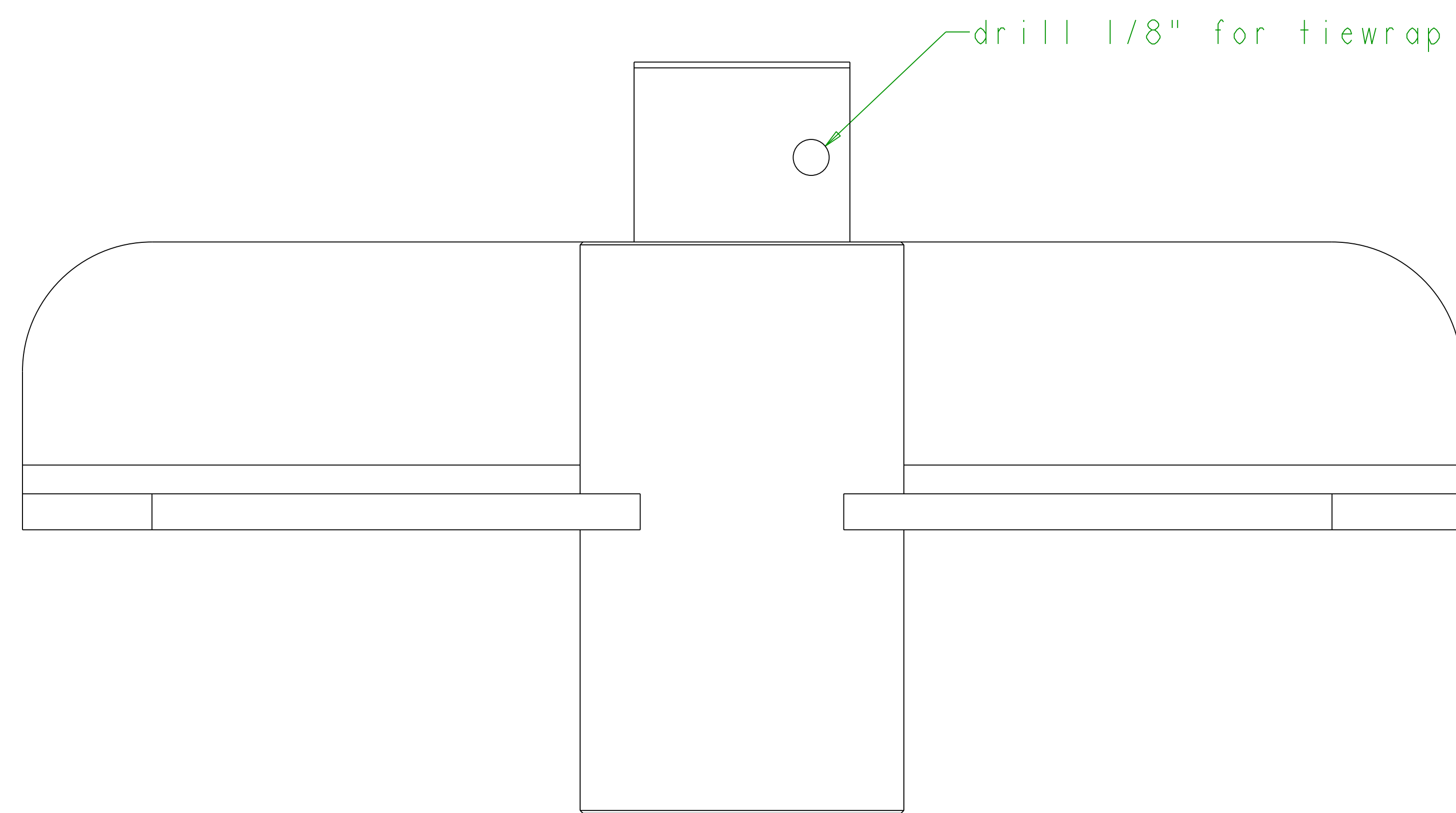
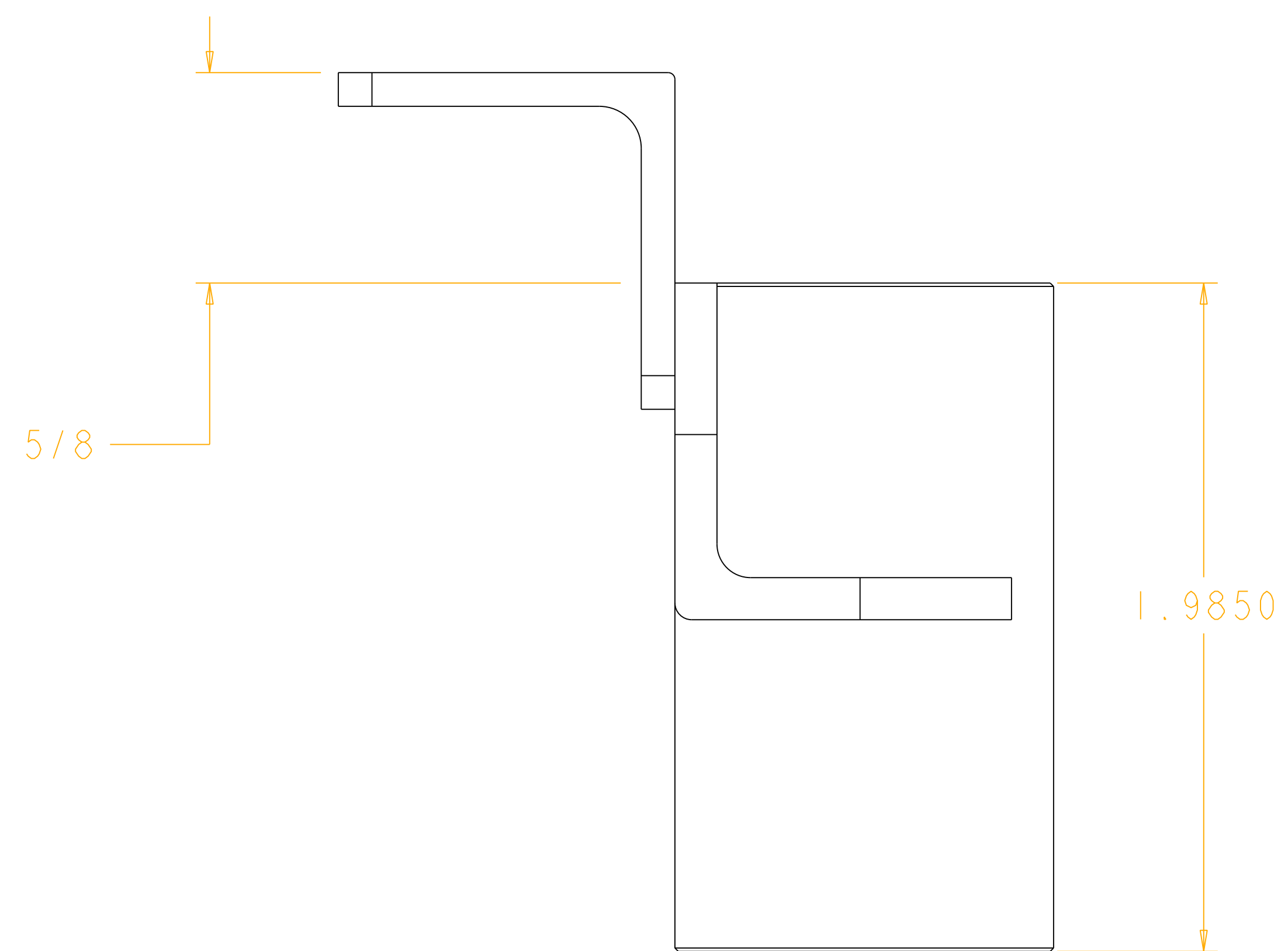
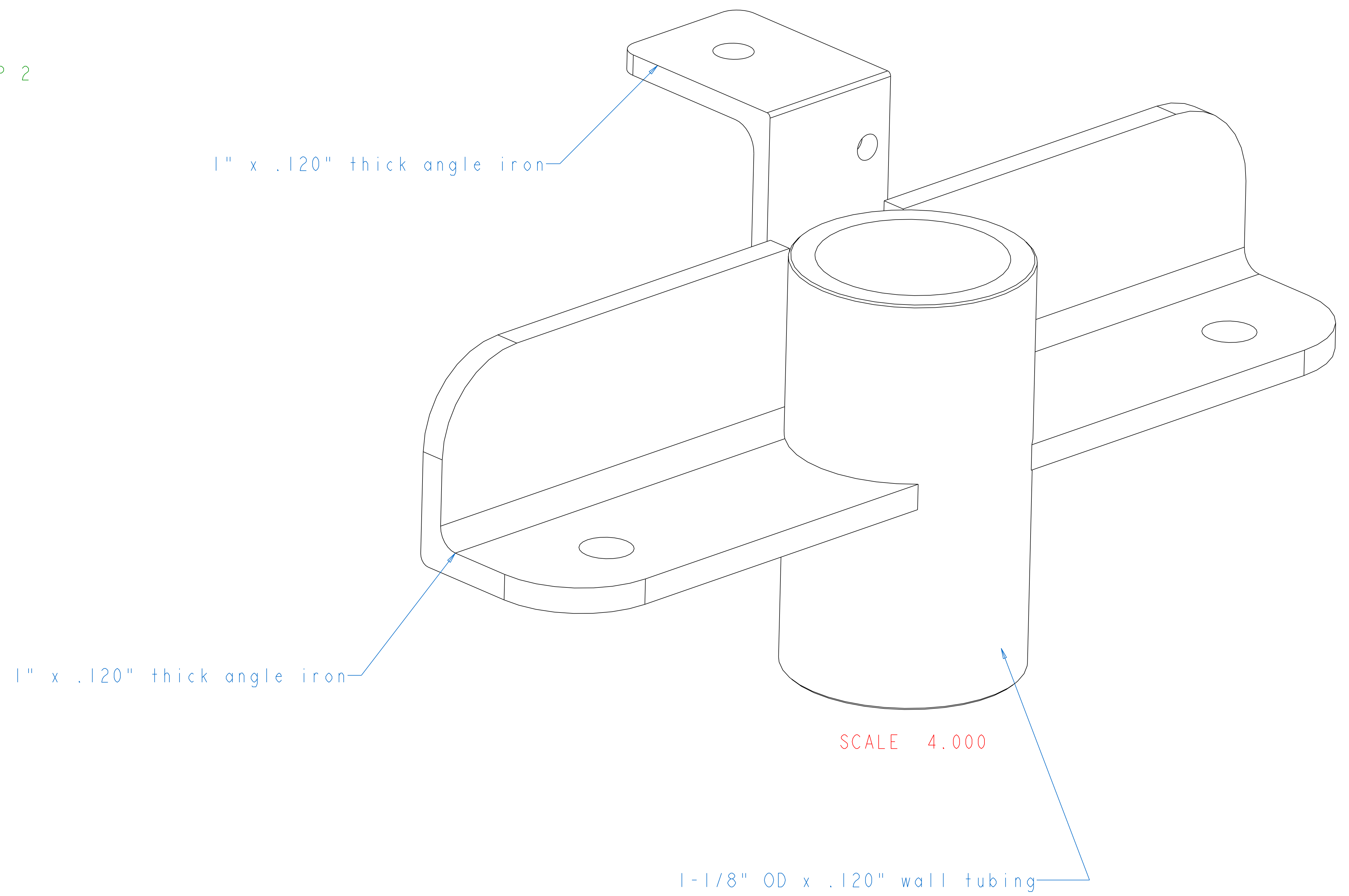
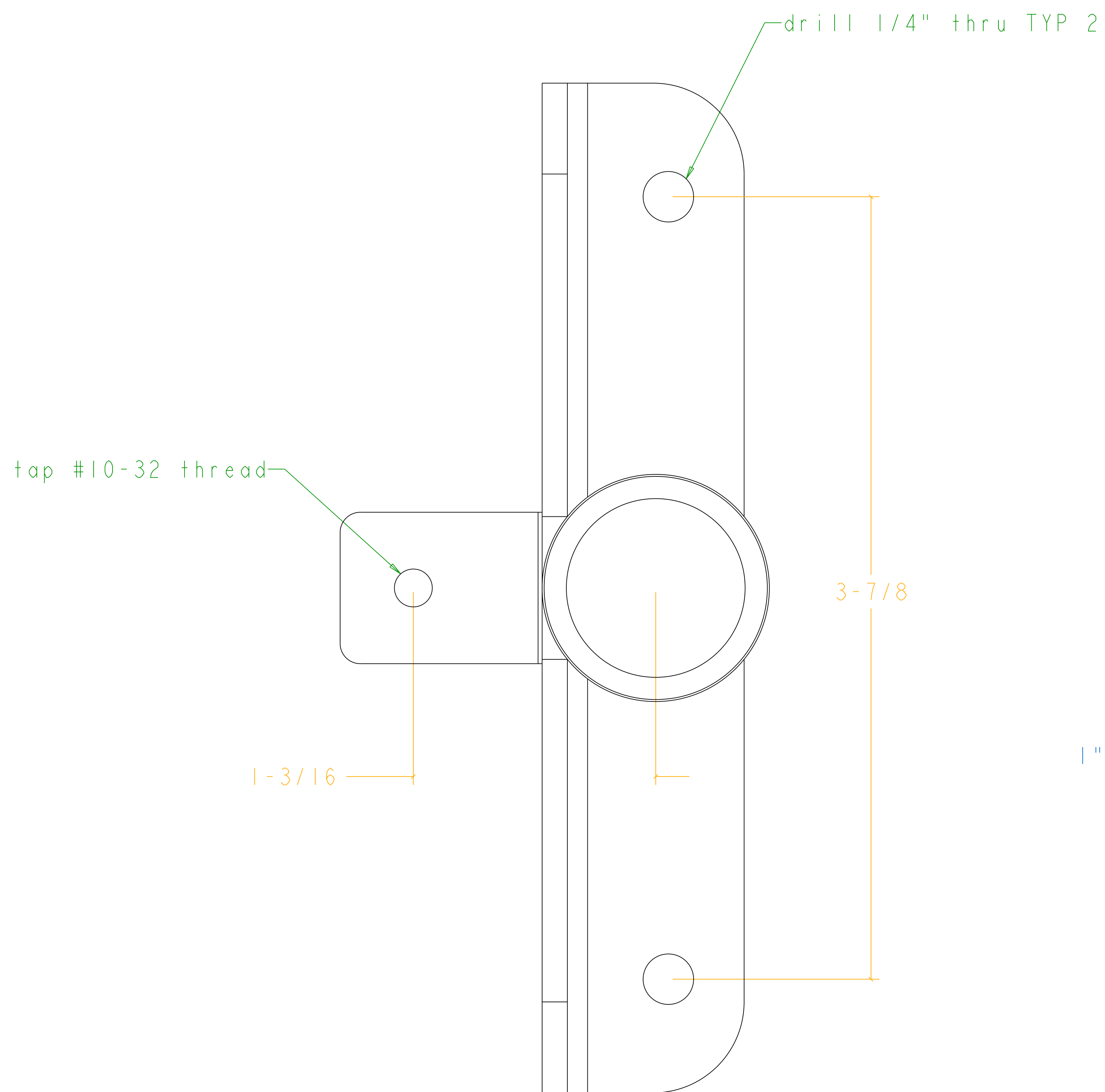
DETAIL PIVOT POST
SCALE 4.000



SCALE 1.750



SCALE 4.000
machine OD to fit ID of 7/8" tubing
drill 1/4" thru hole after welding
tap set screw hole near end surface
potentiometer grip collar



SCALE 3.000

fab end plates from 1" x .125" steel strap

3/4" OD x .065" wall tubing

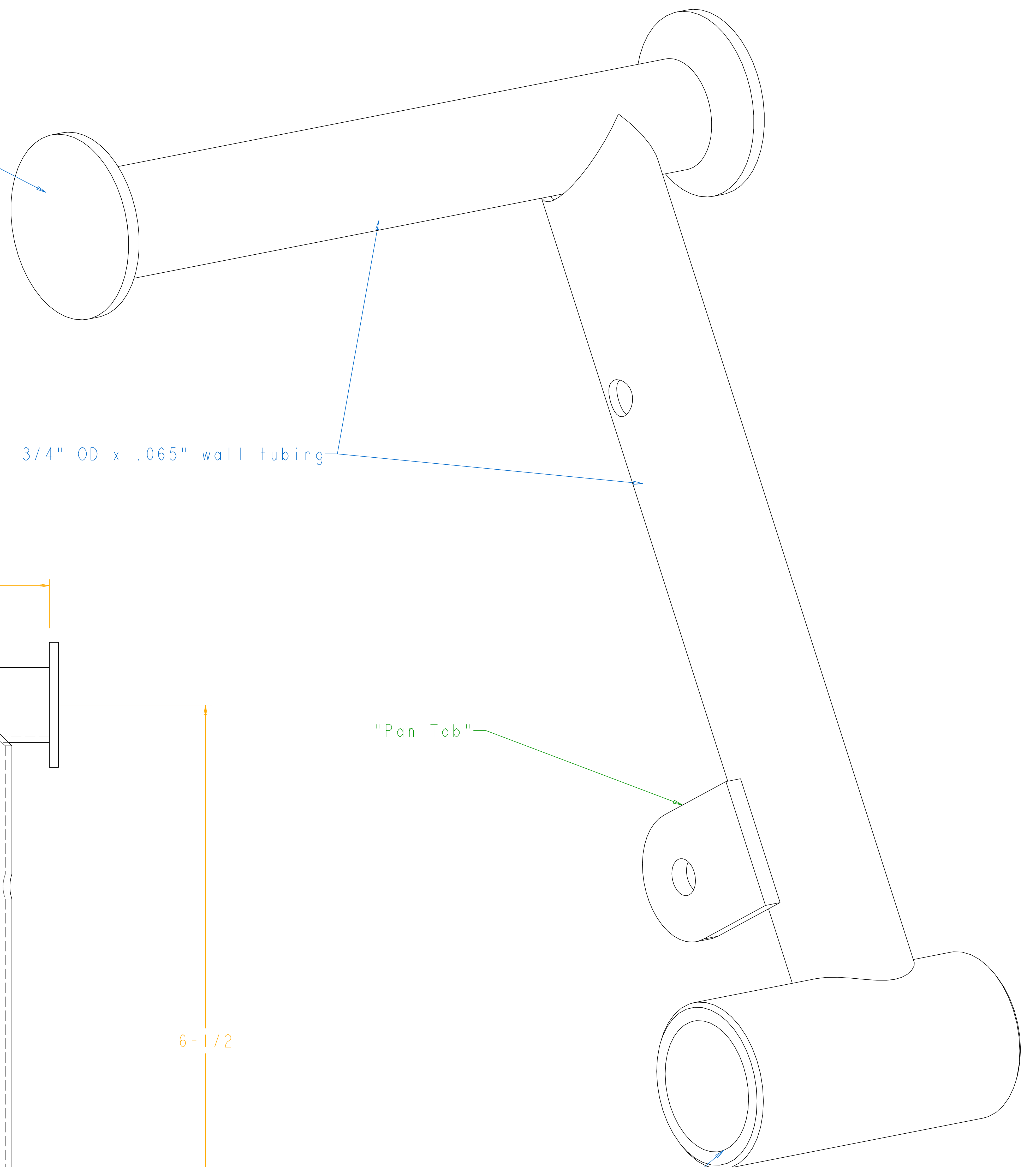
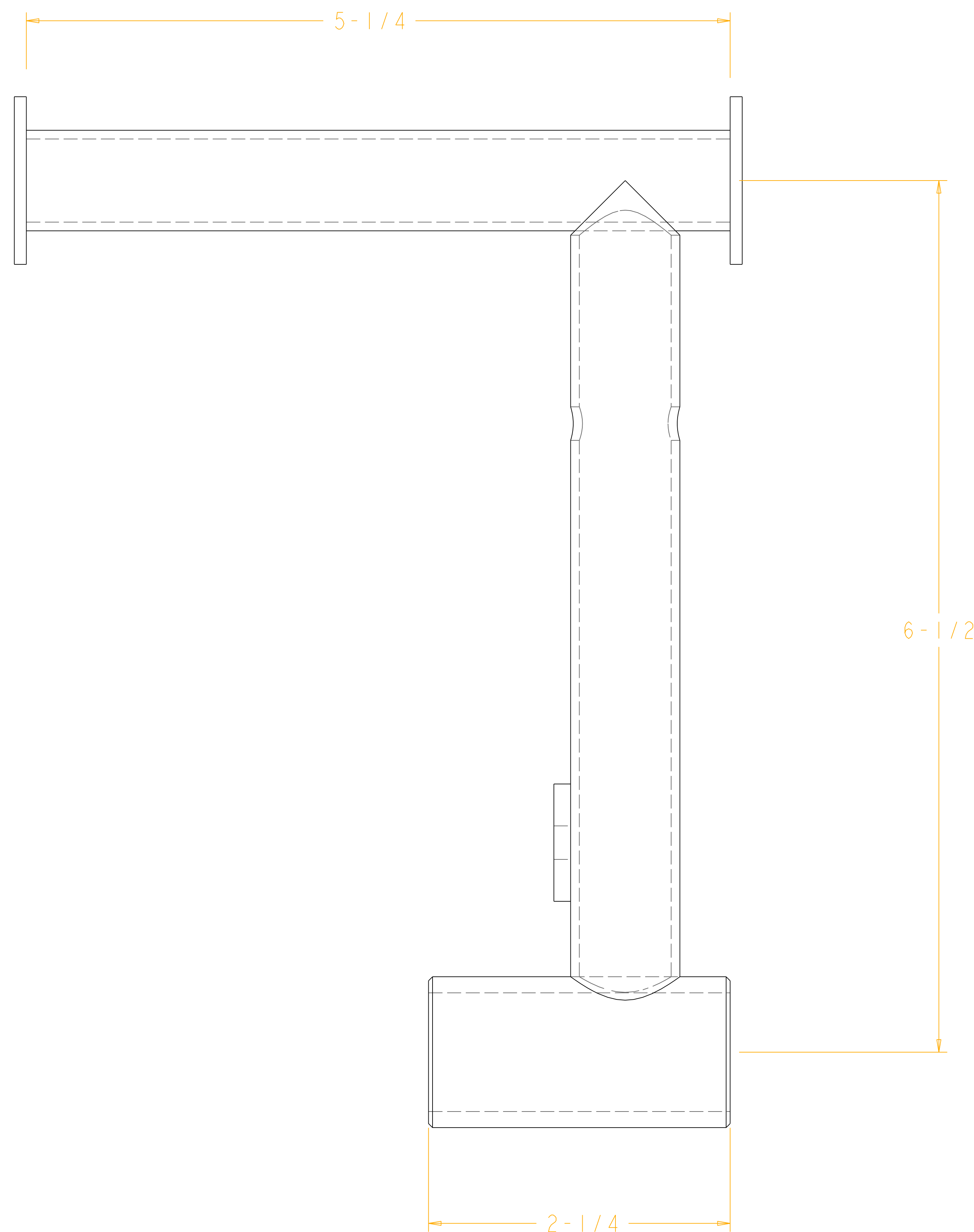
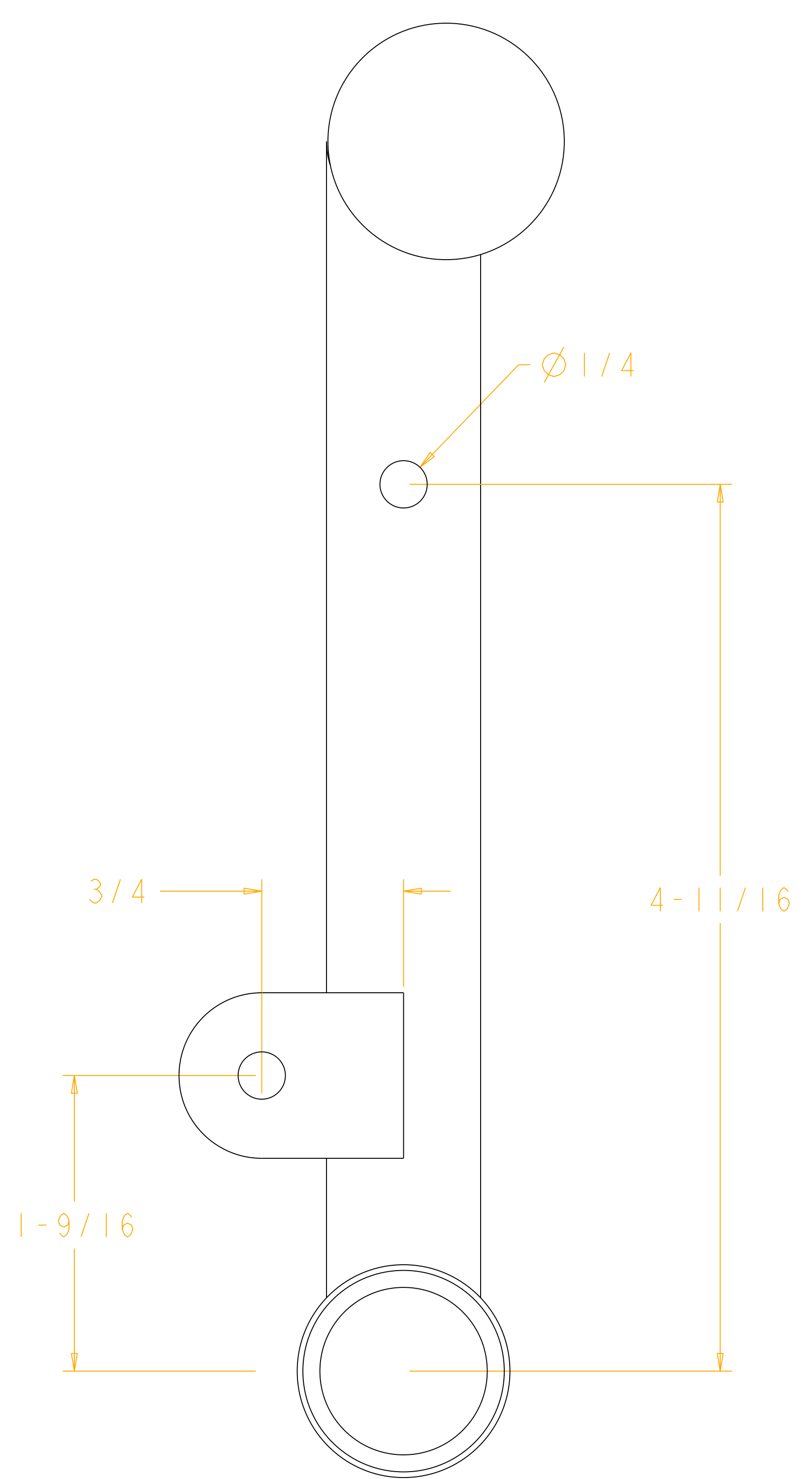
"Pan Tab"

1-1/8" OD x .120" wall tubing

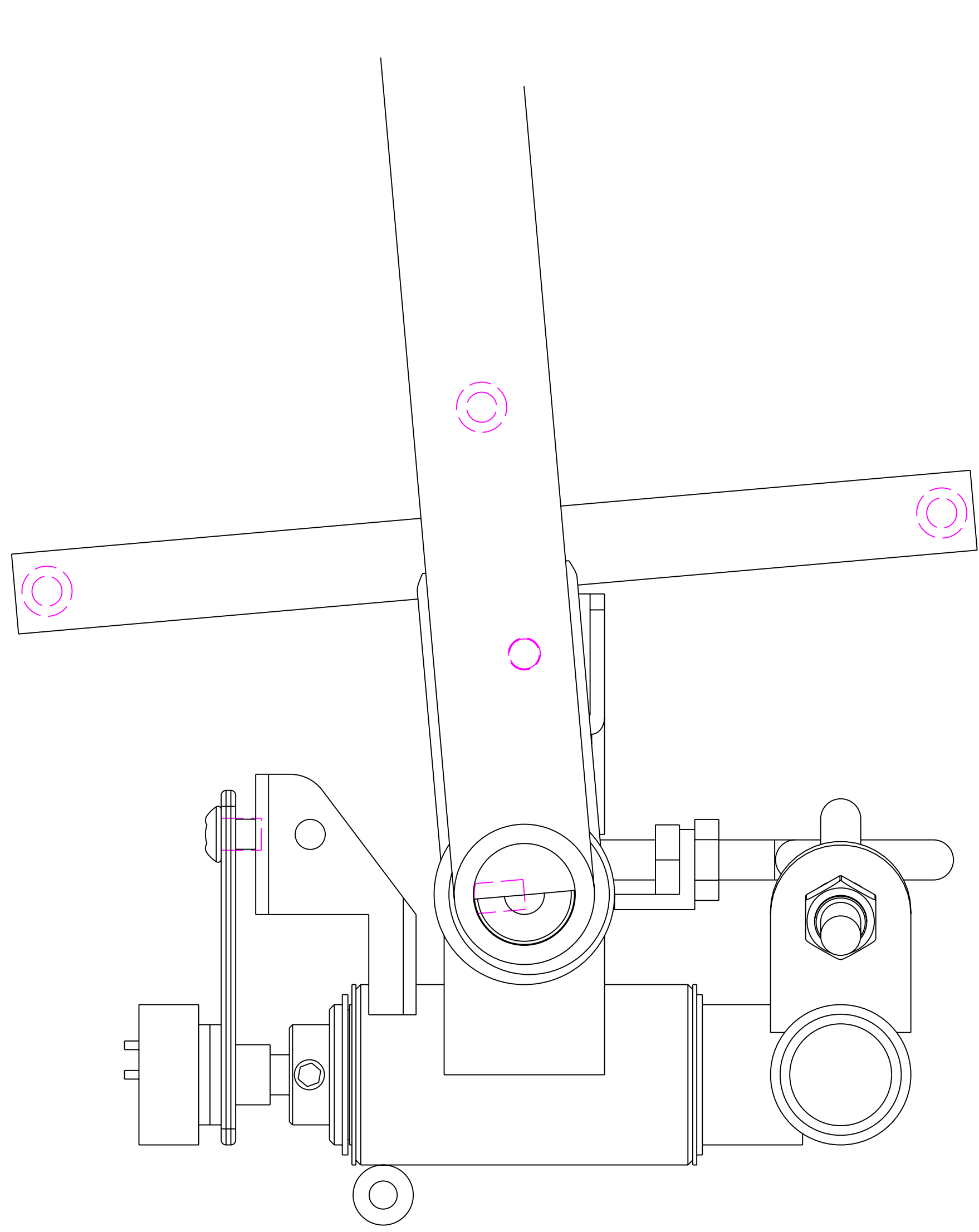
SCALE 3.000

Pedal Weldment (shown: Left)

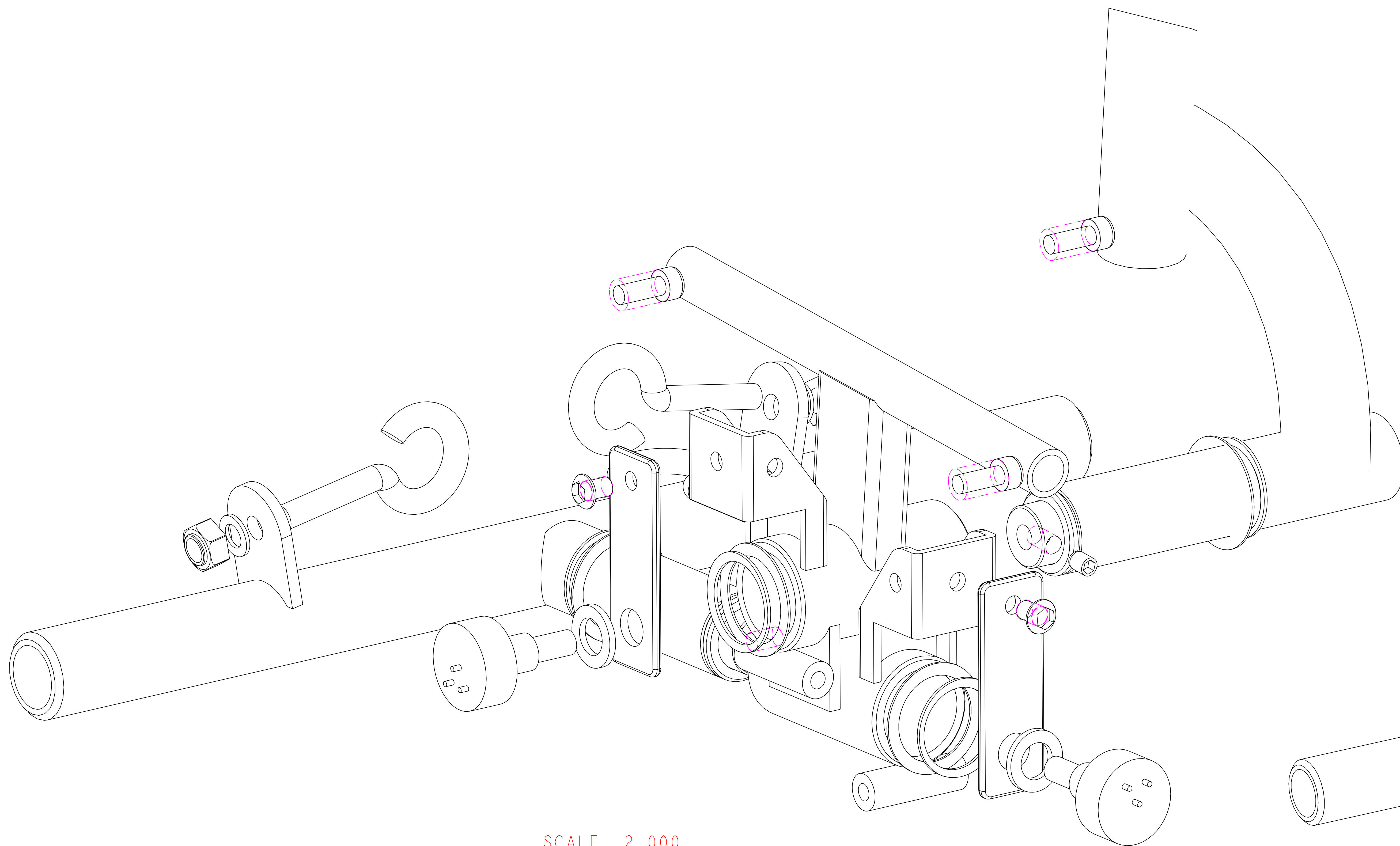
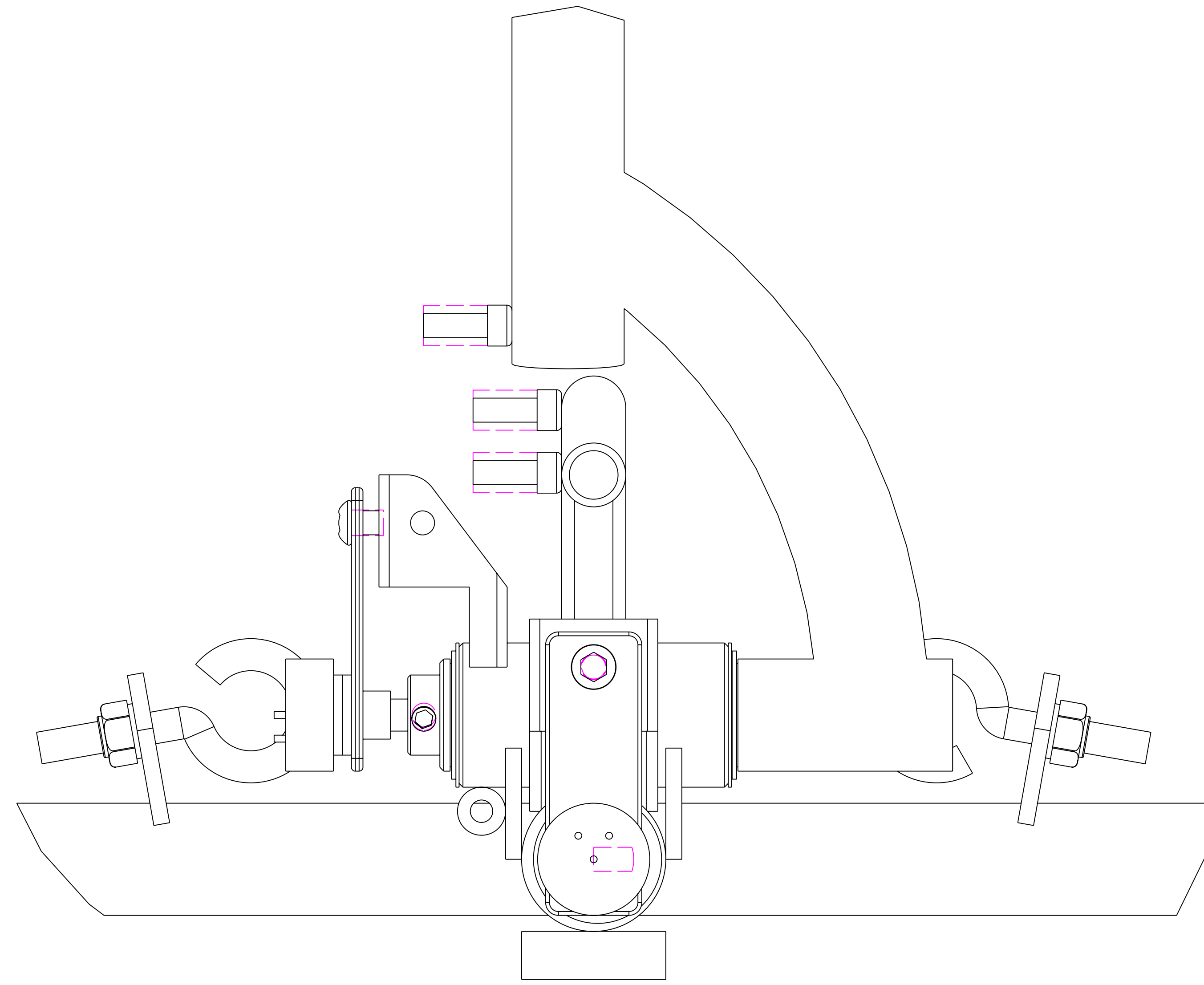
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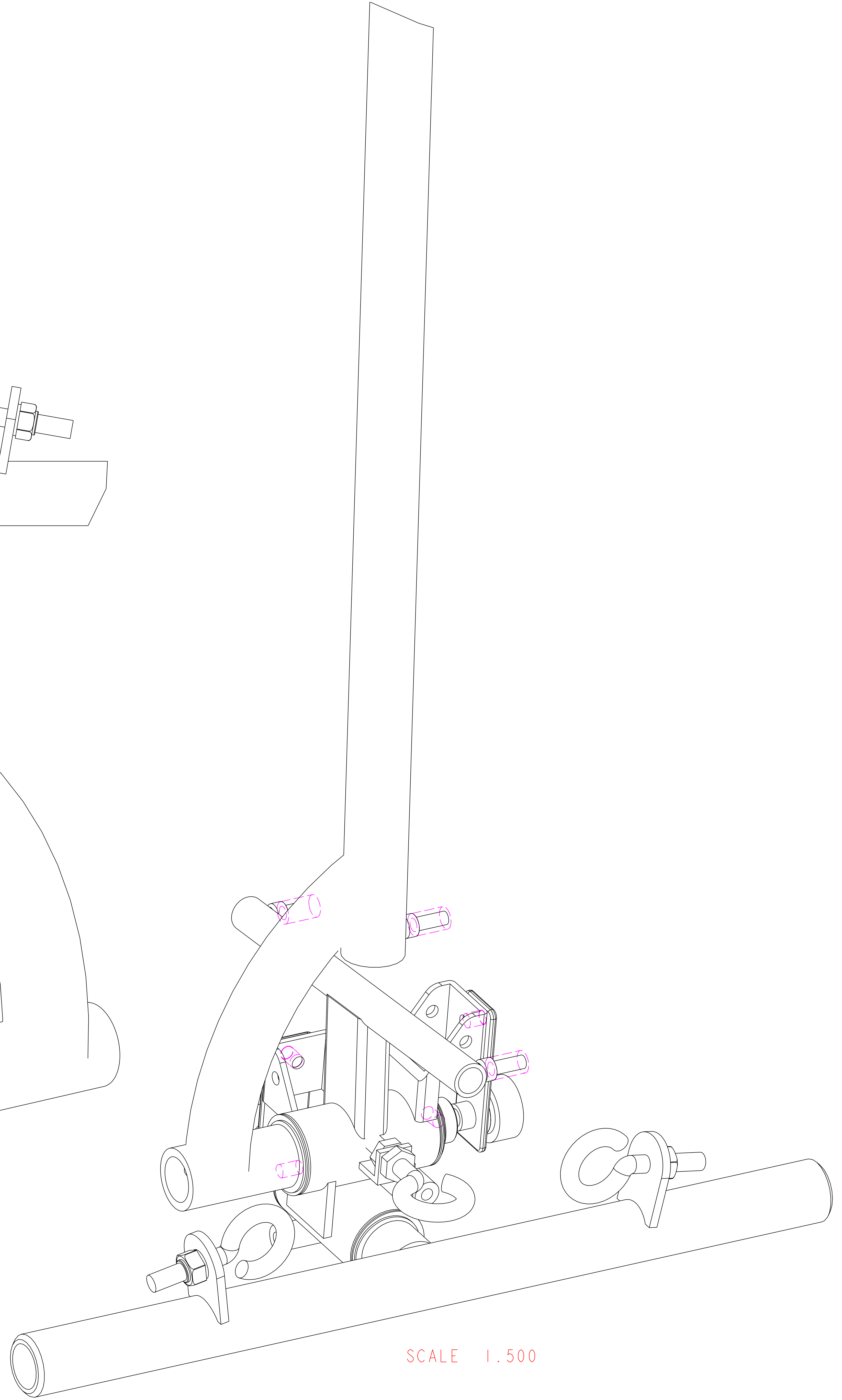
Cyclic Sub-Assembly



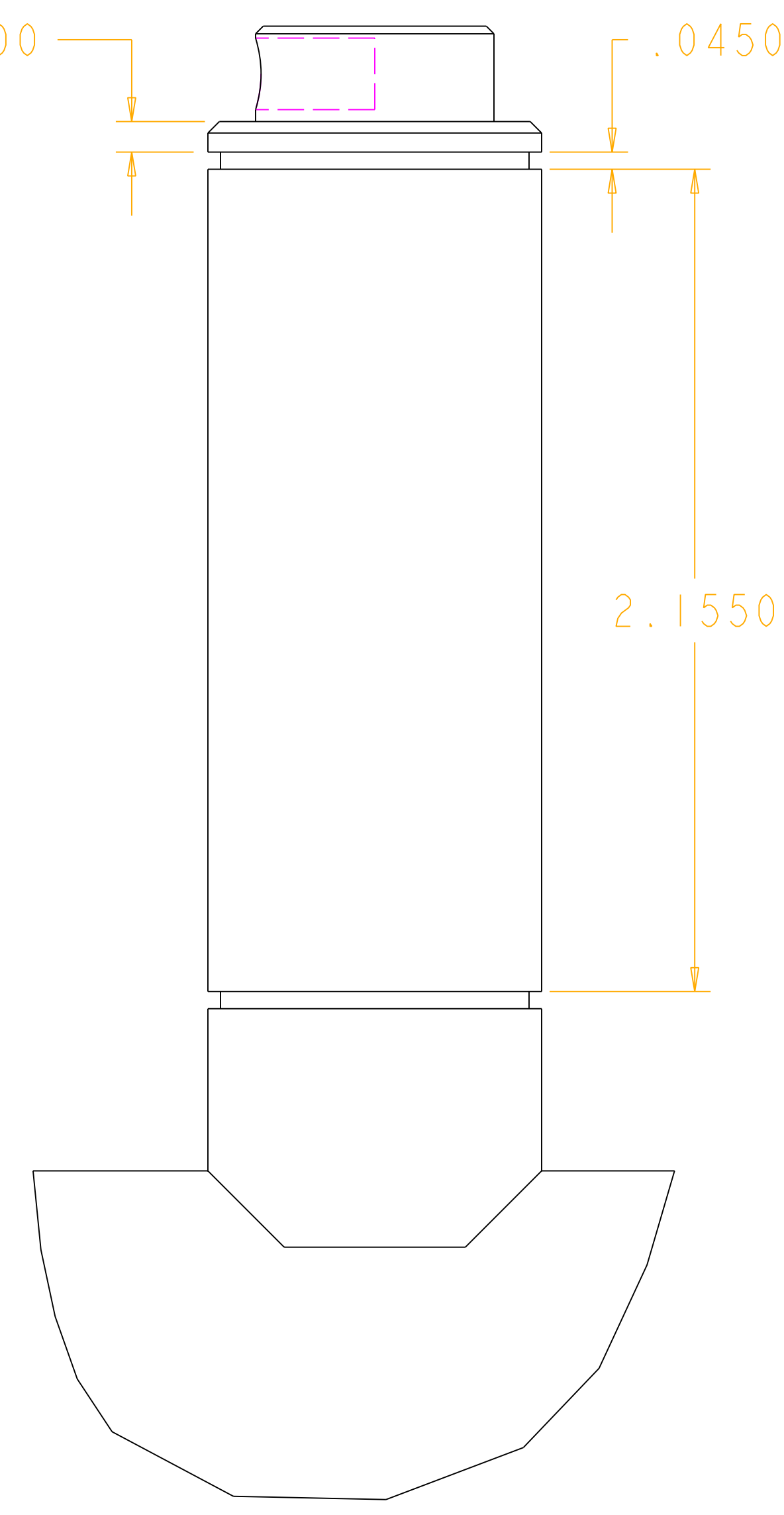
SCALE 1.500



SCALE 2.000



SCALE 1.500



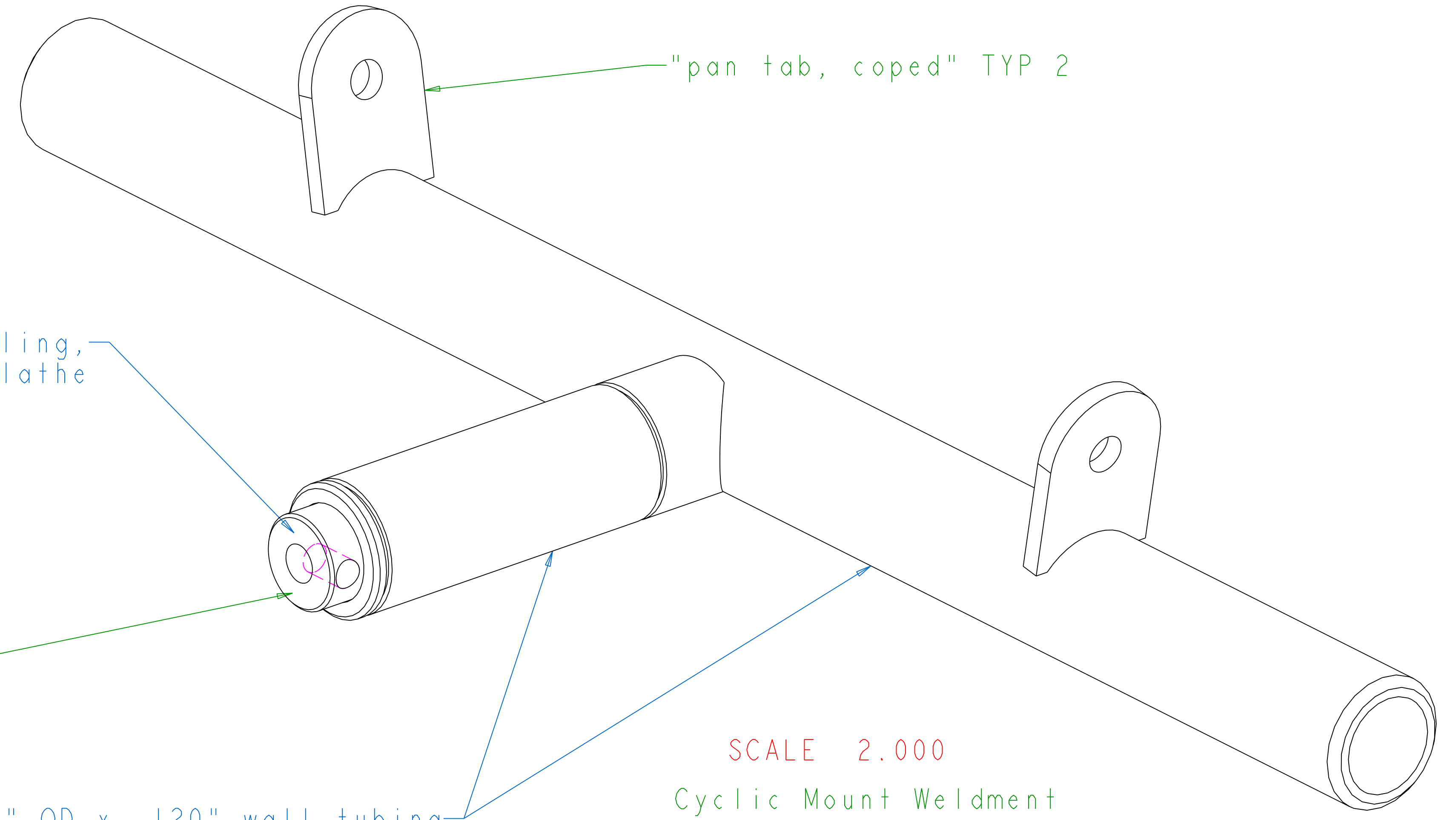
DETAIL CYCLIC POST
SCALE 3.000

weld collar into tubing post prior to drilling,
drill 1/4" thru hole using fixture or lathe

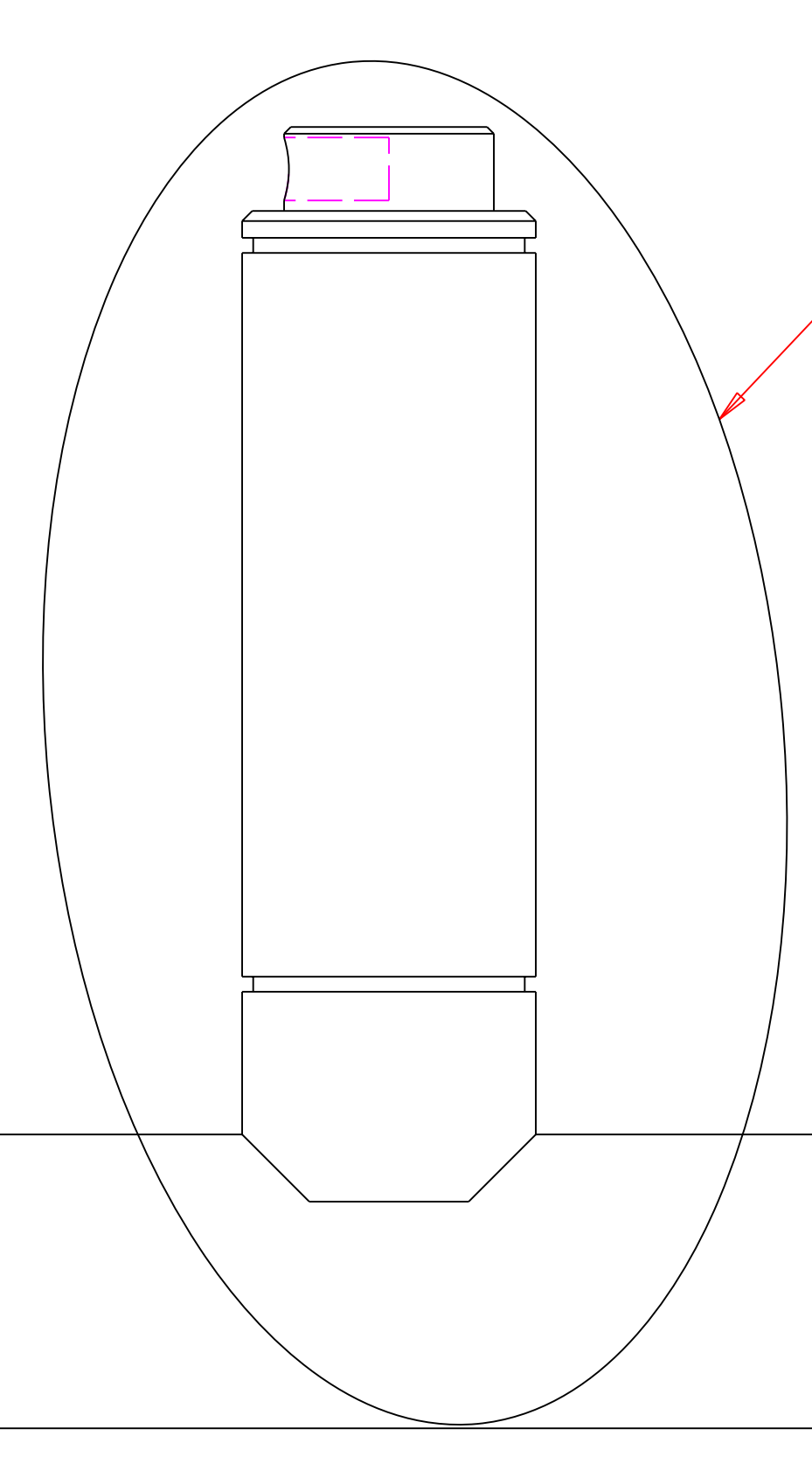
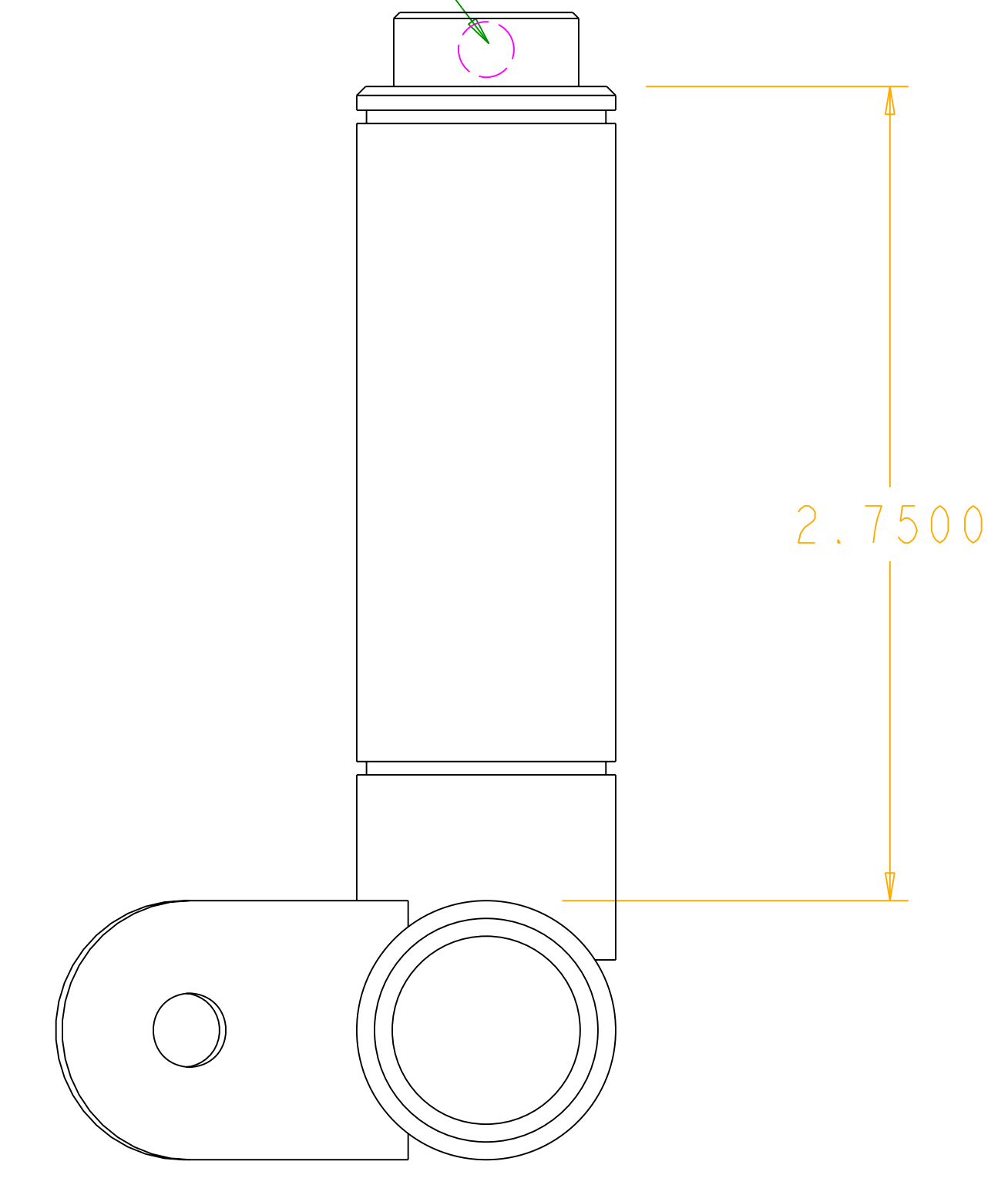
"potentiometer grip collar"

7/8" OD x .120" wall tubing

SCALE 2.000
Cyclic Mount Weldment

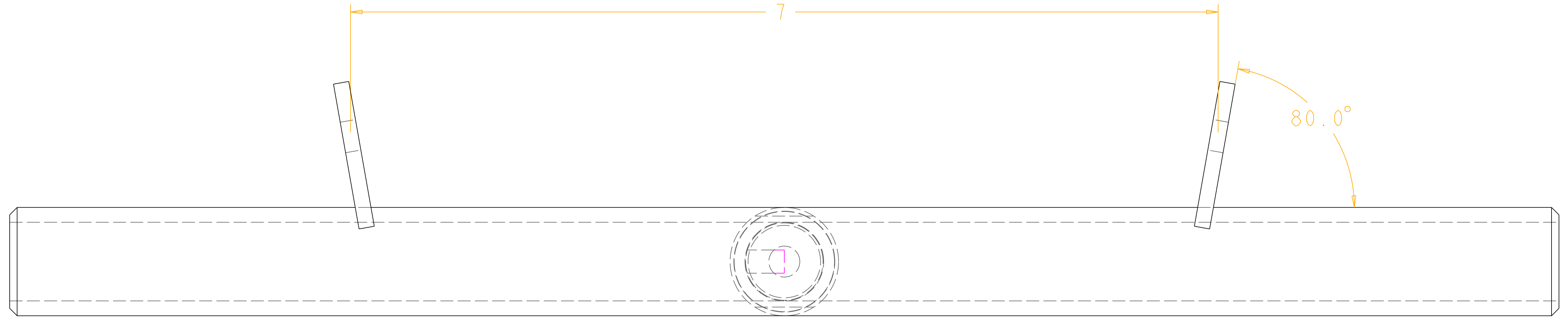
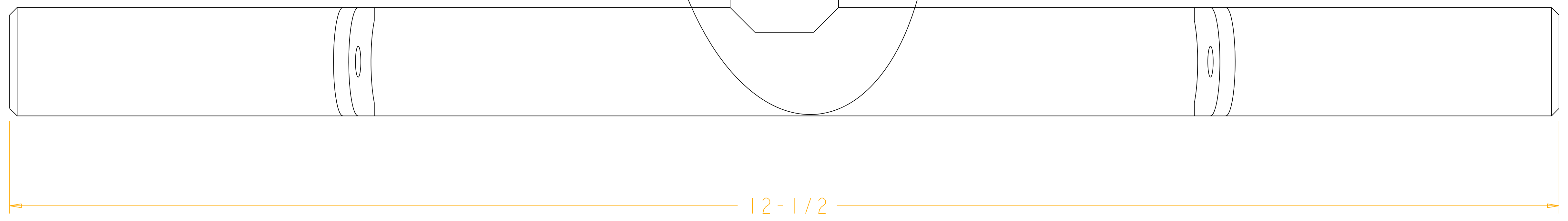


Tap #10-32 for set screw

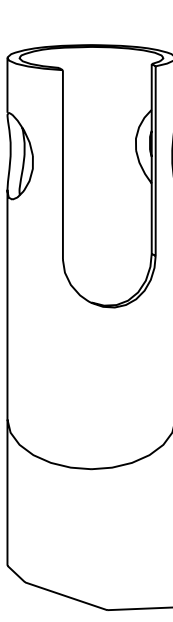
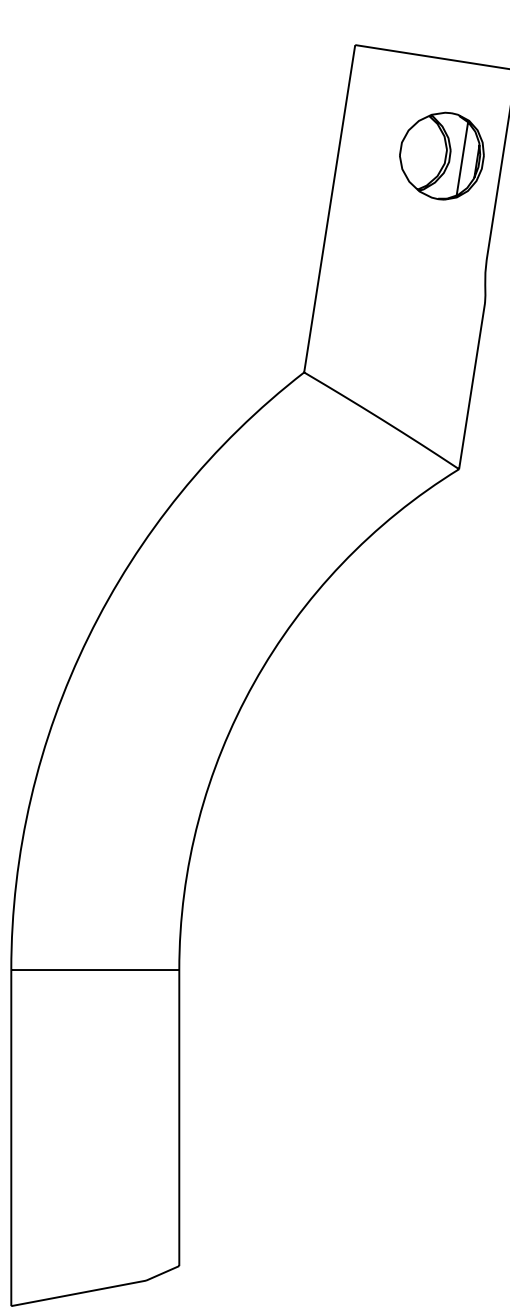
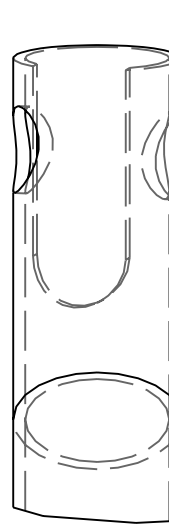
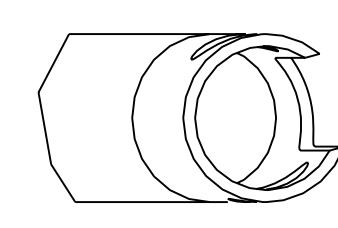


SEE DETAIL CYCLIC POST

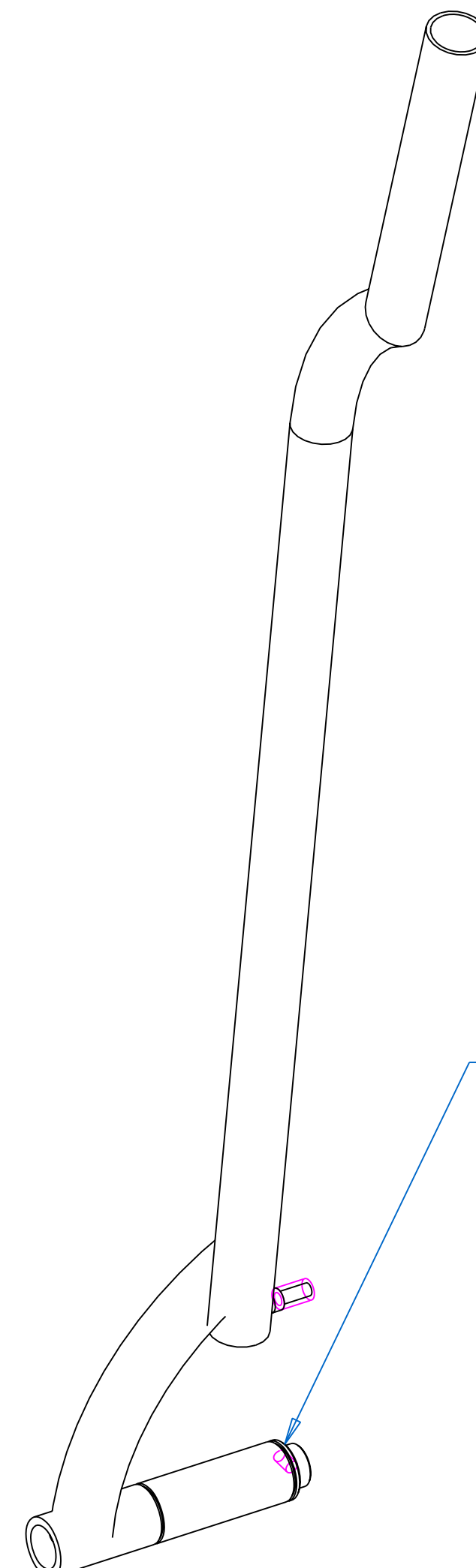
SCALE 2.000



Cut and modify cyclic as required by the specifications of the grip type. Example cut shown for Infinity grip.



SCALE 1.000
"cyclic grip mod"



SCALE 0.500
Cyclic Weldment

weld special potentiometer grip collar into end of tubing and tighten setscrew to secure potentiometer shaft

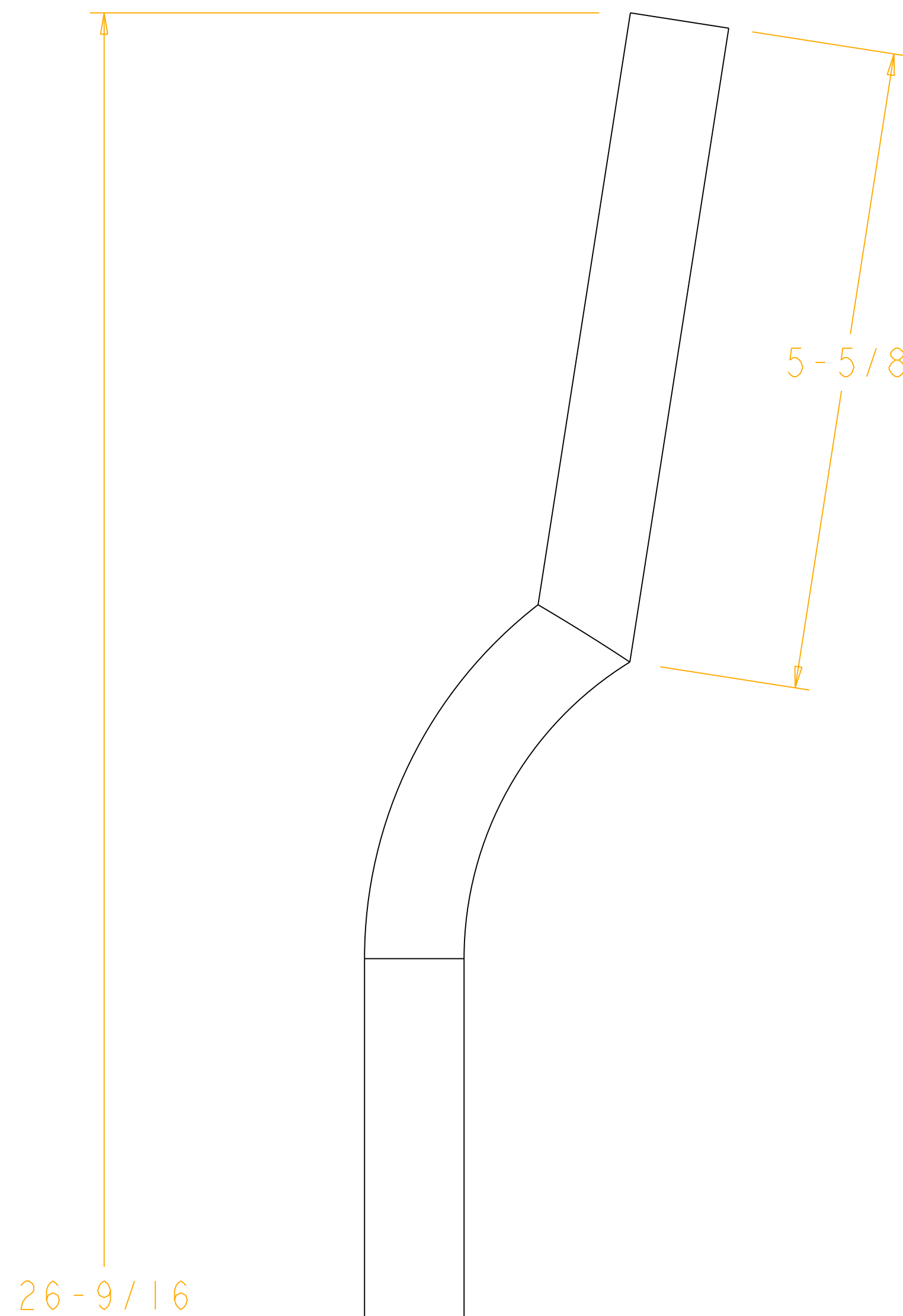
7/8" OD x .120" wall tubing, all components

use #10-32 x 1/2" OAL bolt

DETAIL LOWER WELDMENT
SCALE 3.000

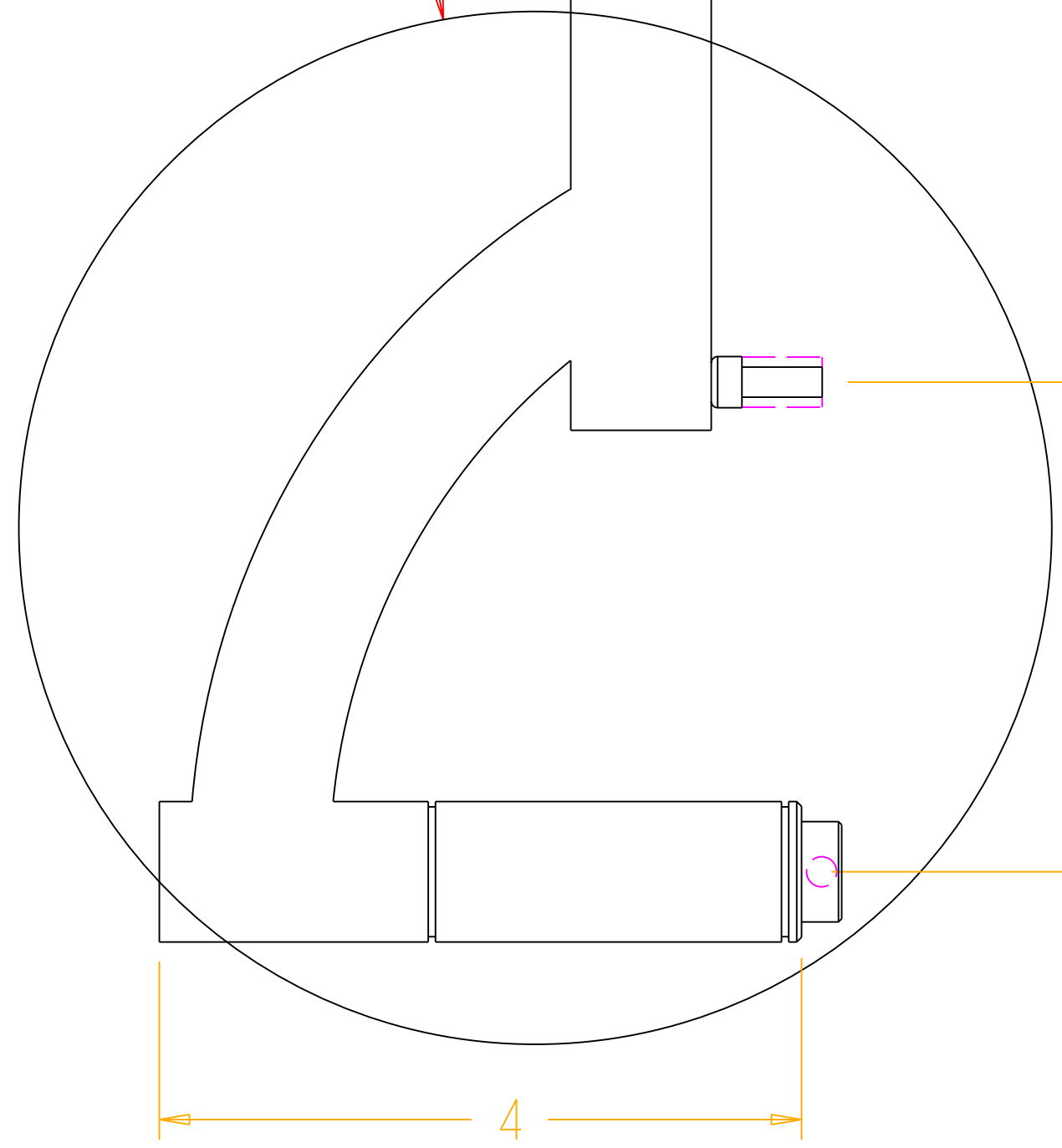
"potentiometer grip collar"

Tap #10-32



SCALE 1.000

SEE DETAIL LOWER WELDMENT

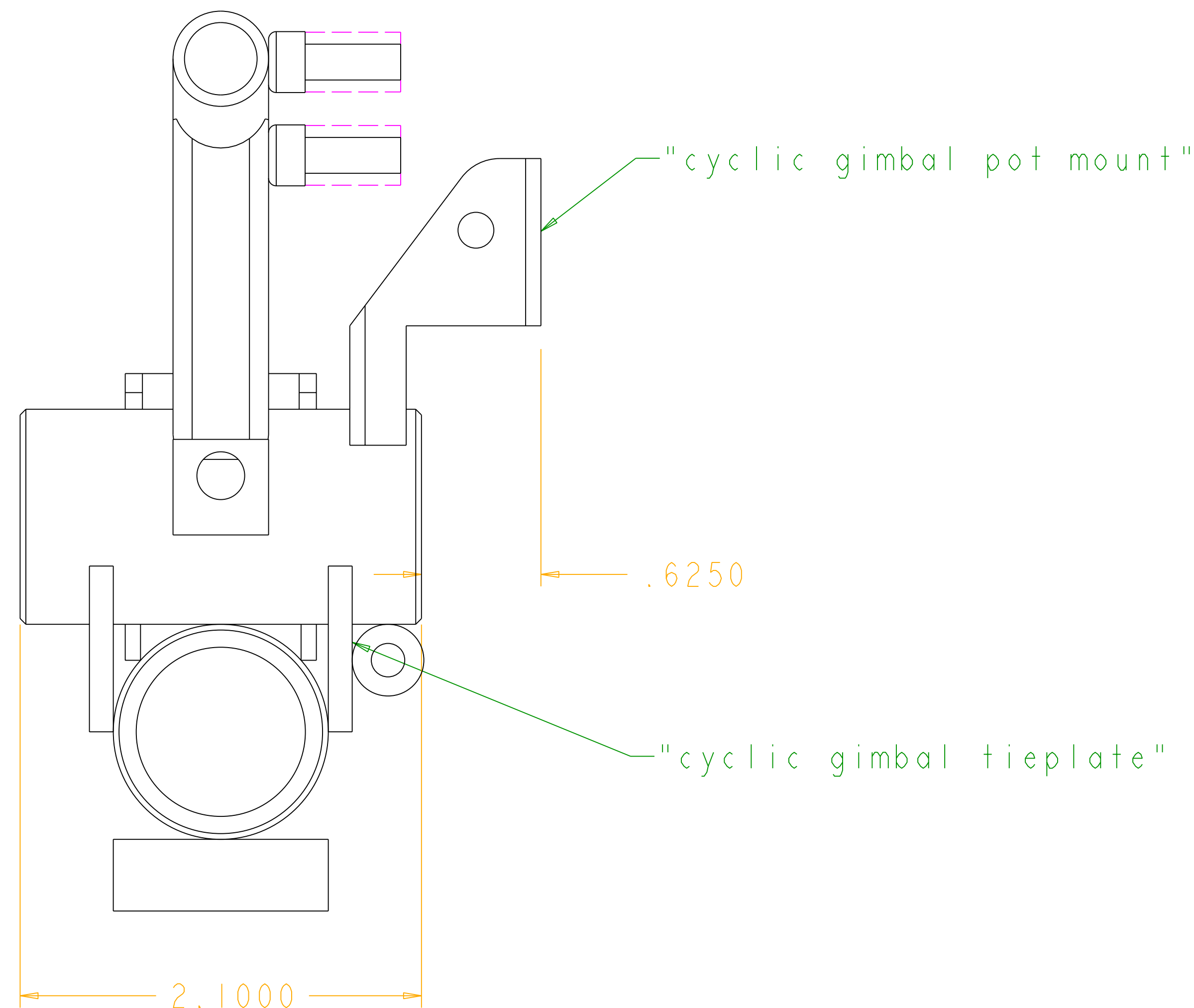
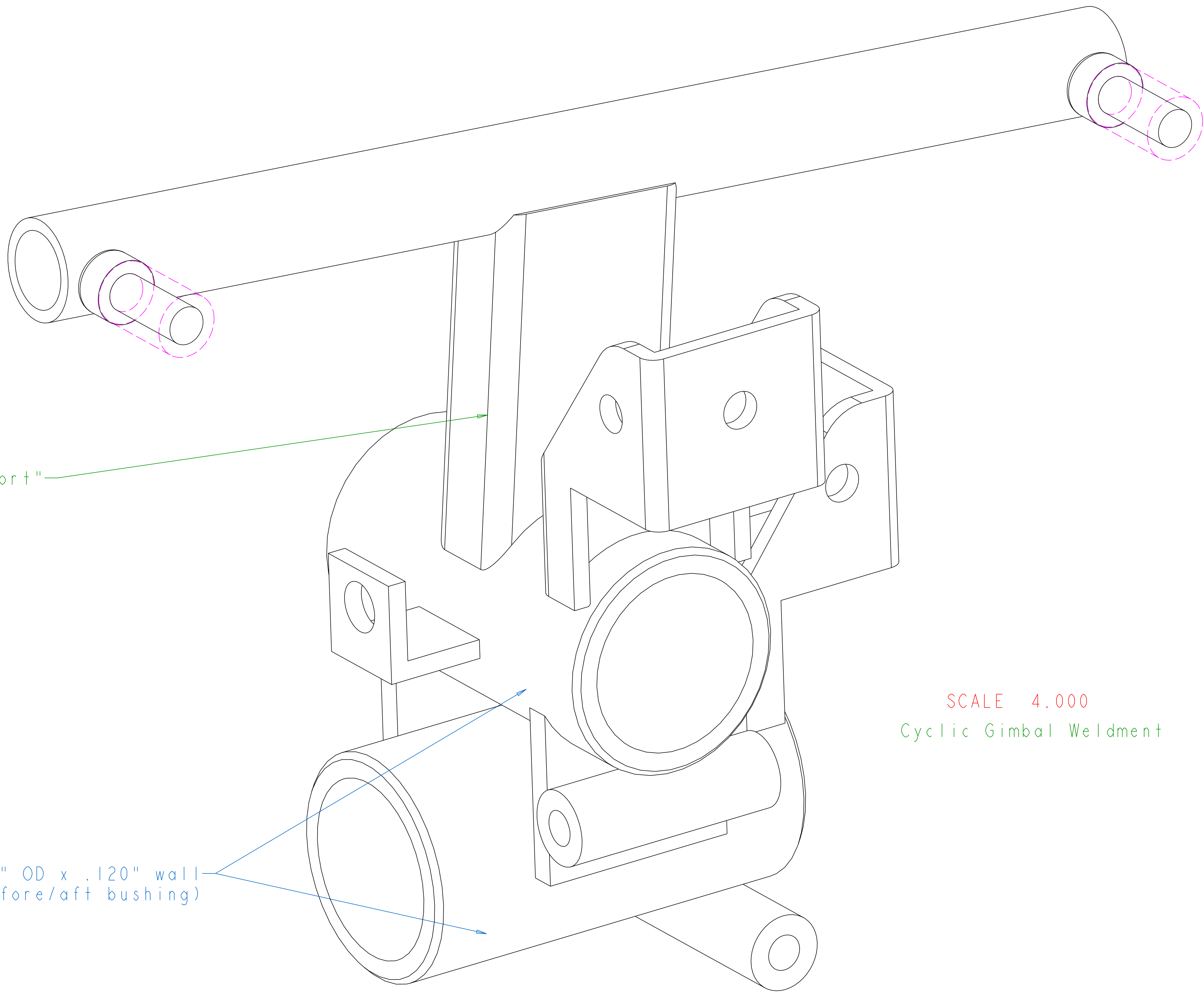
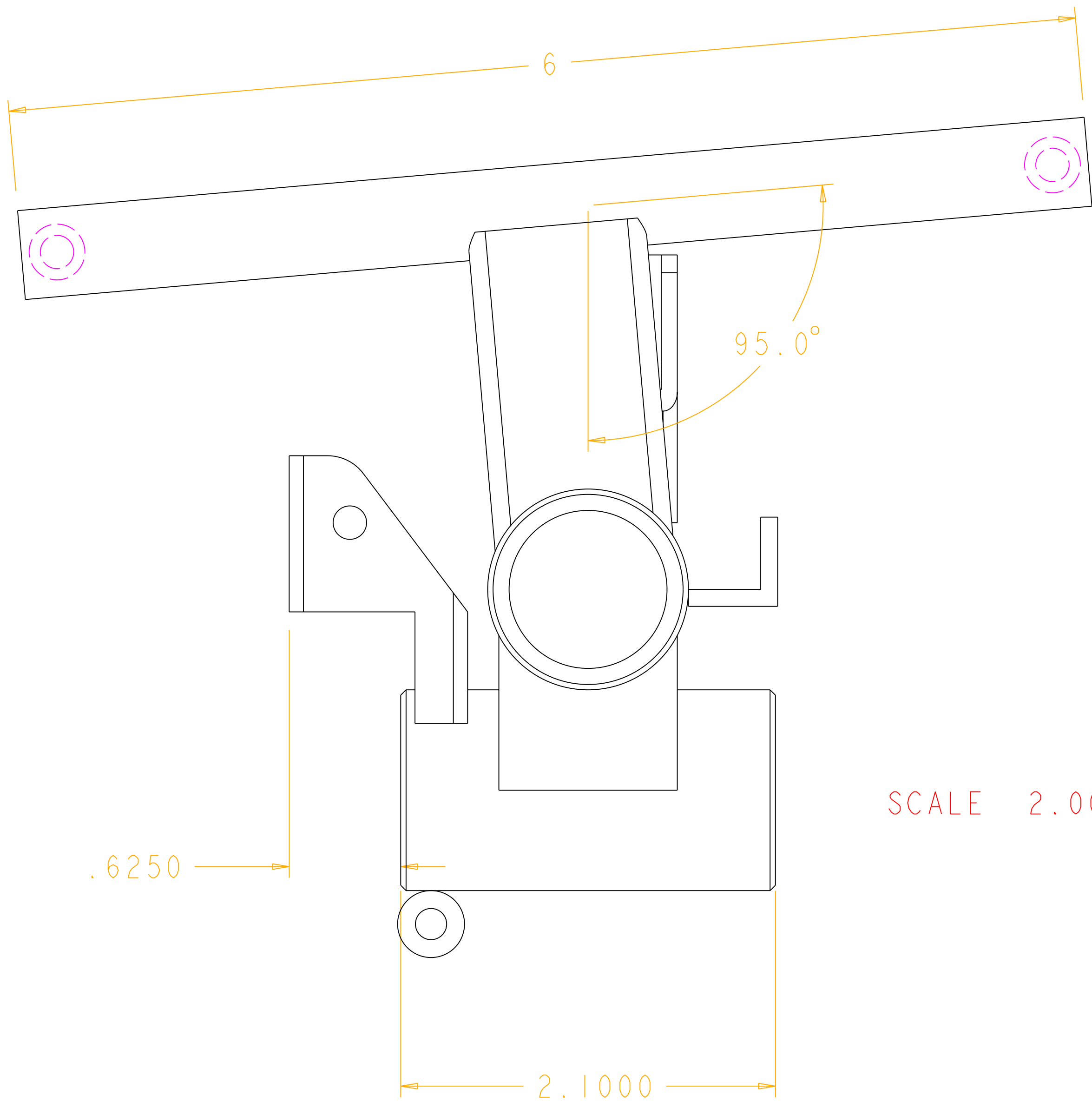
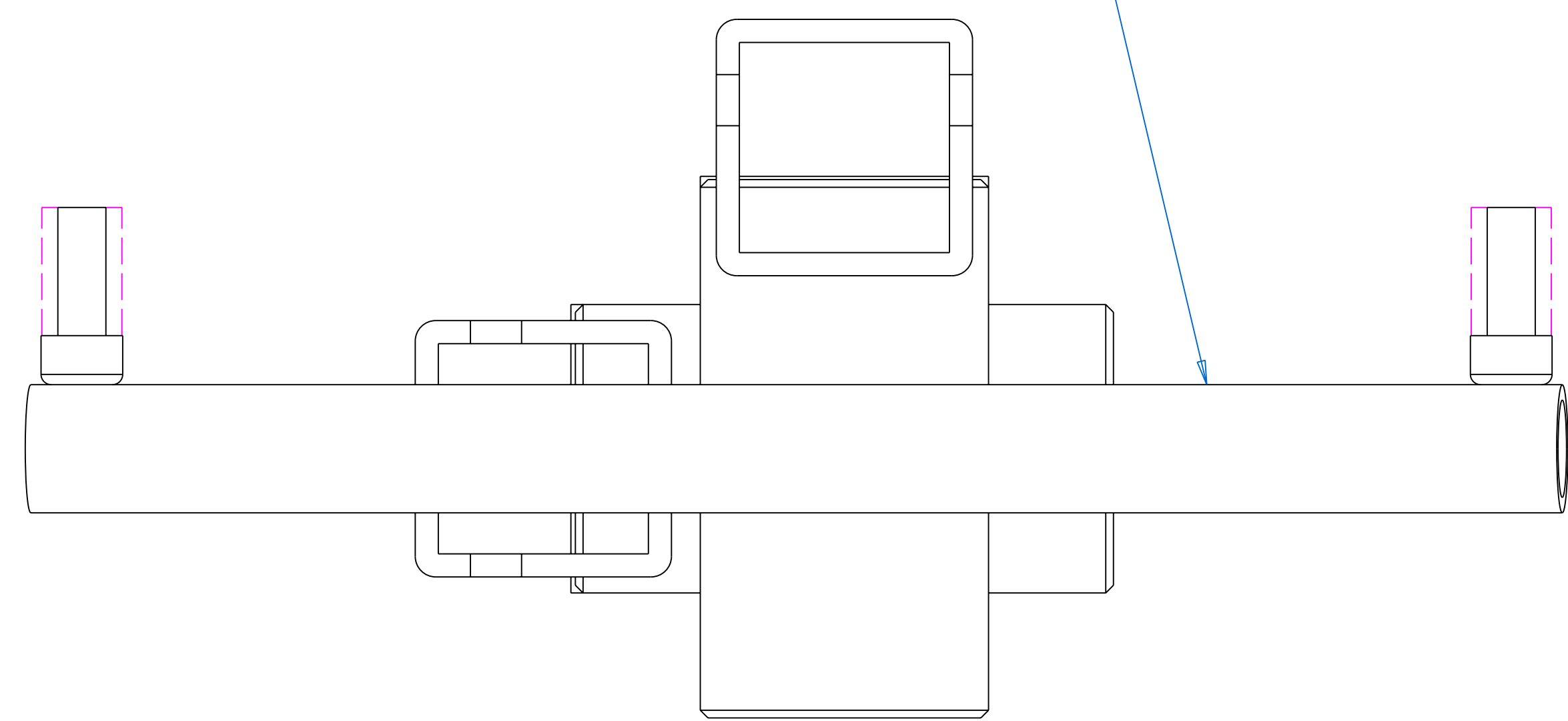
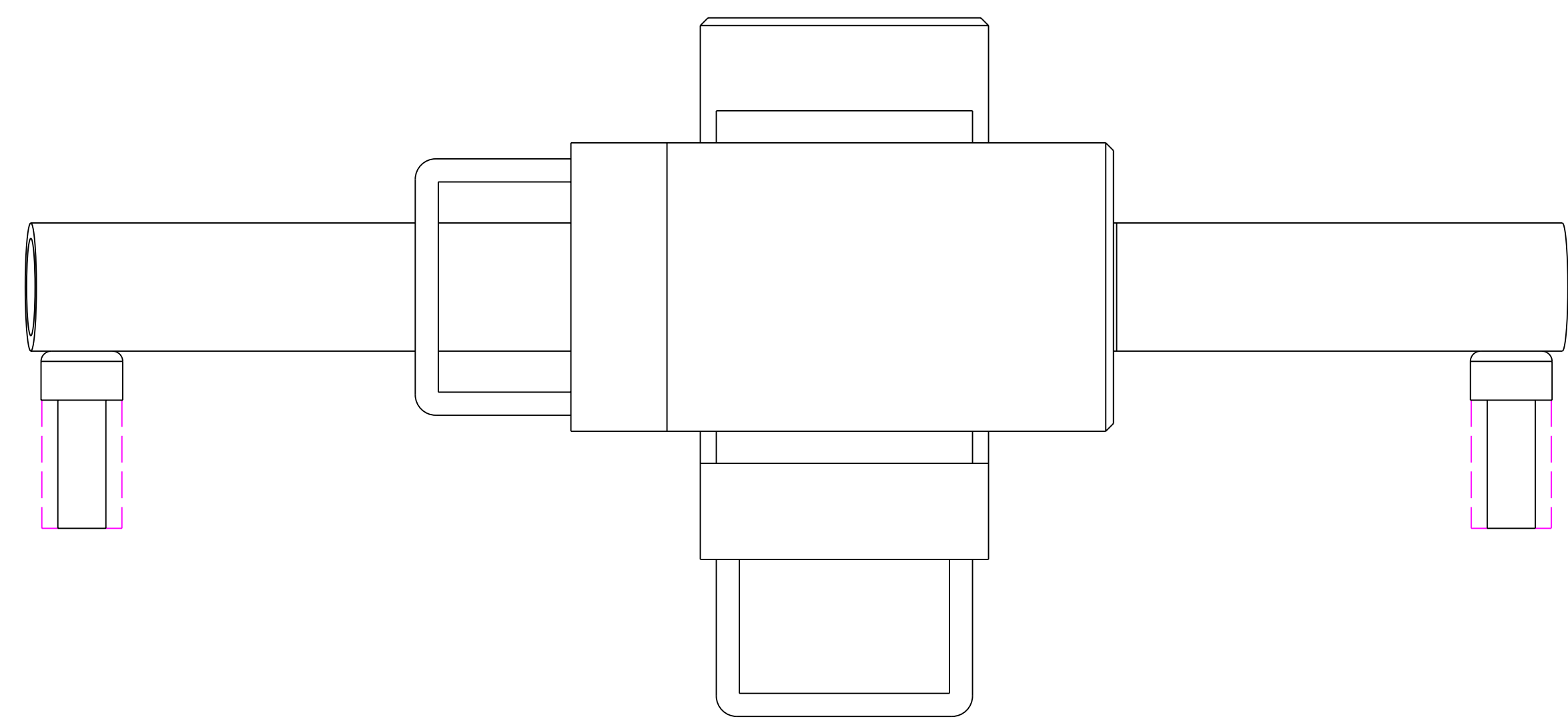


heli-chair

Mechanical Drawing Set

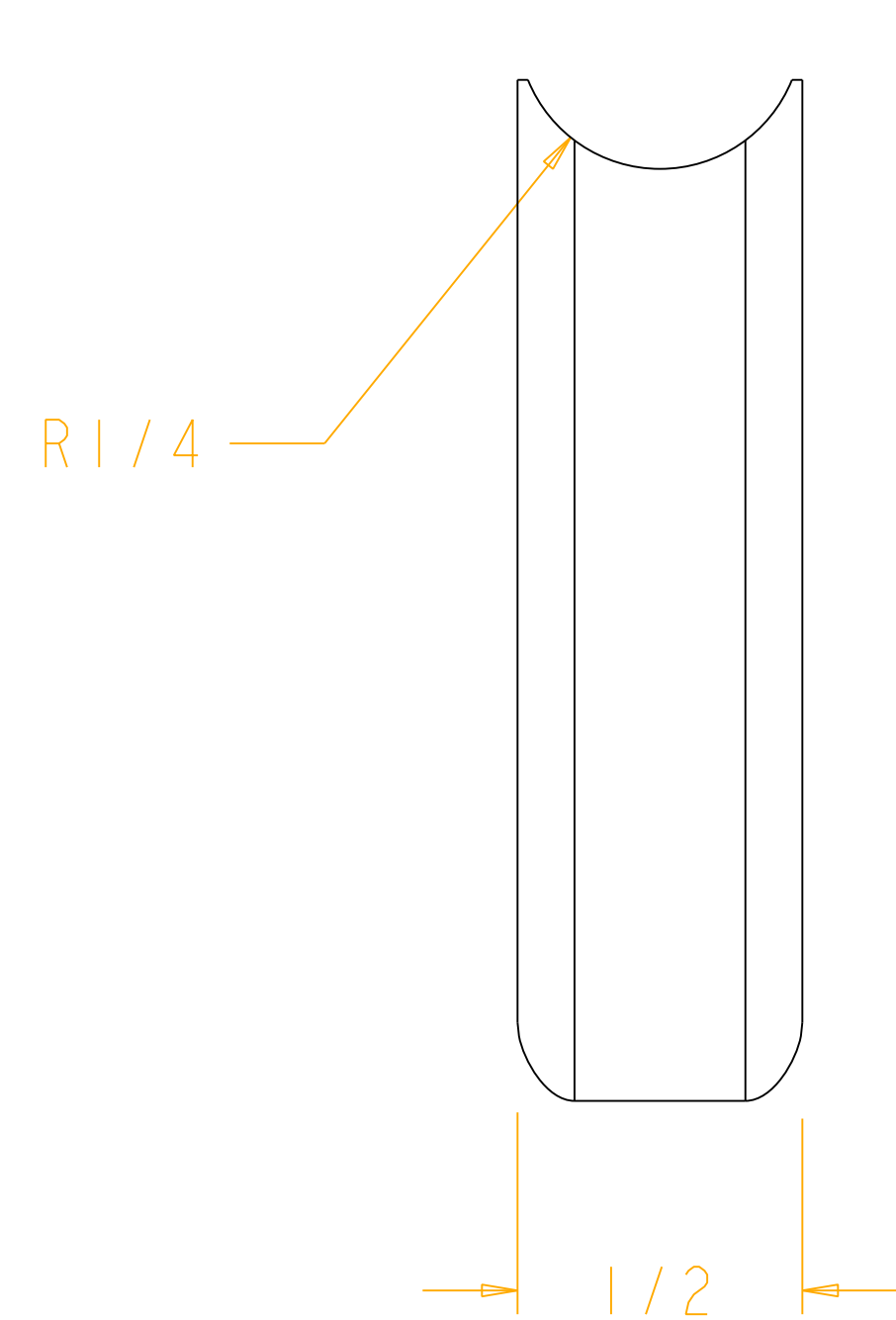
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15 Feb 2007

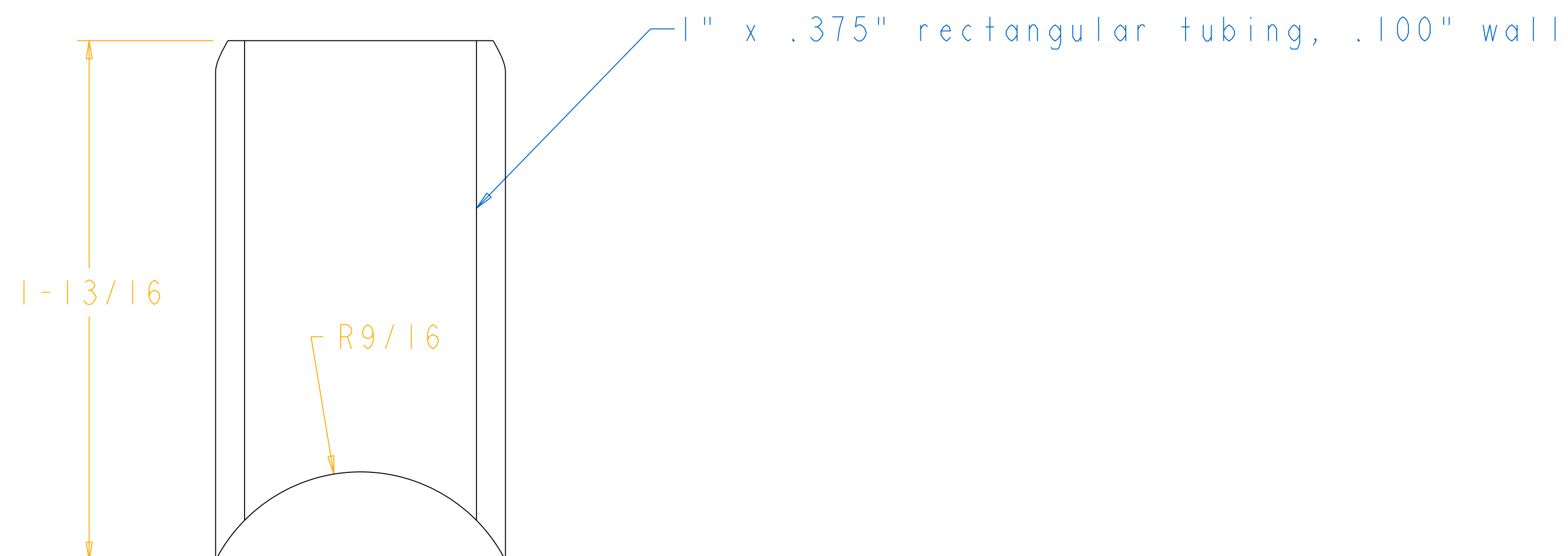


SCALE 4.000
Cyclic Gimbal Weldment

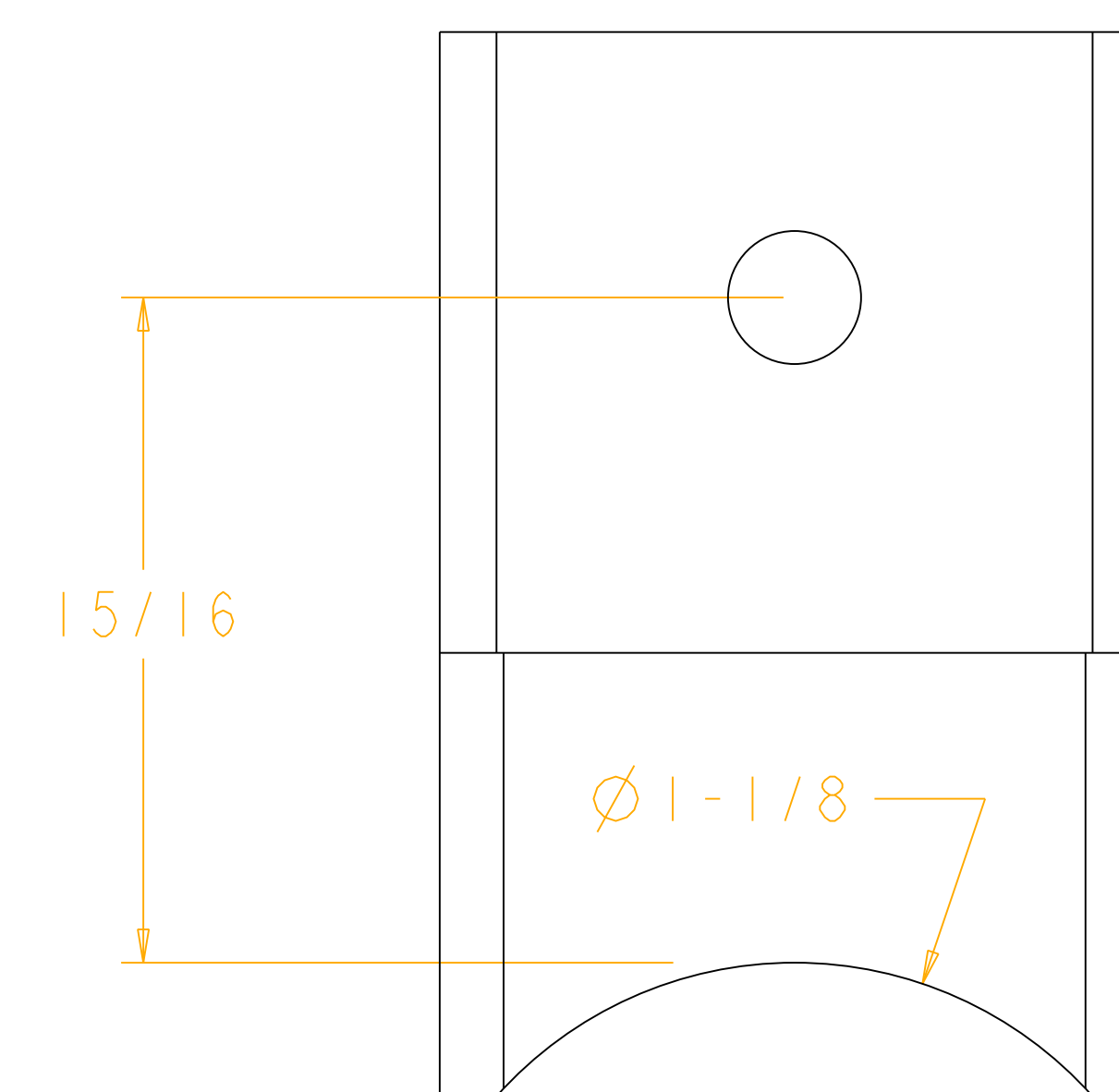
SCALE 2.000



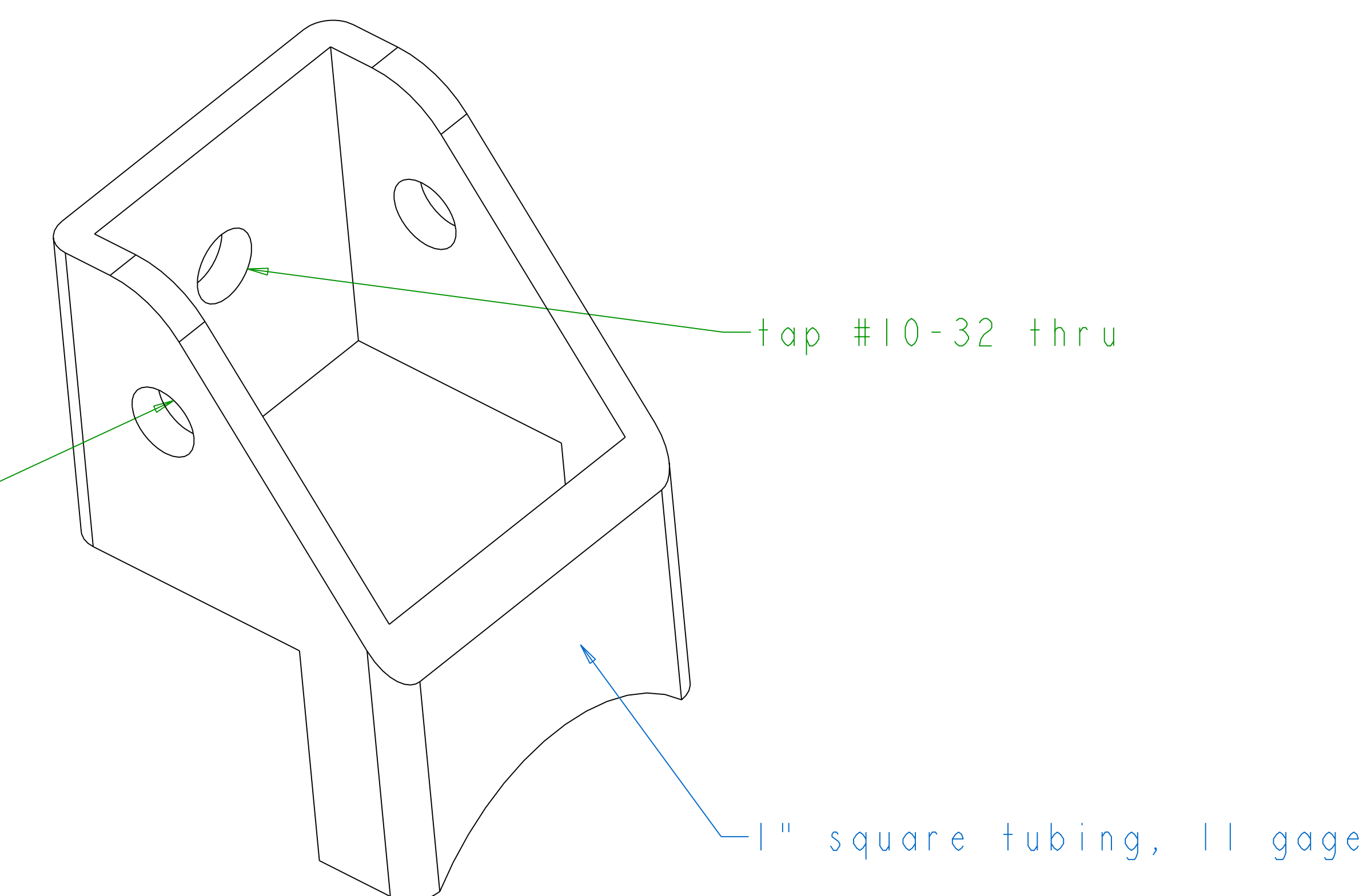
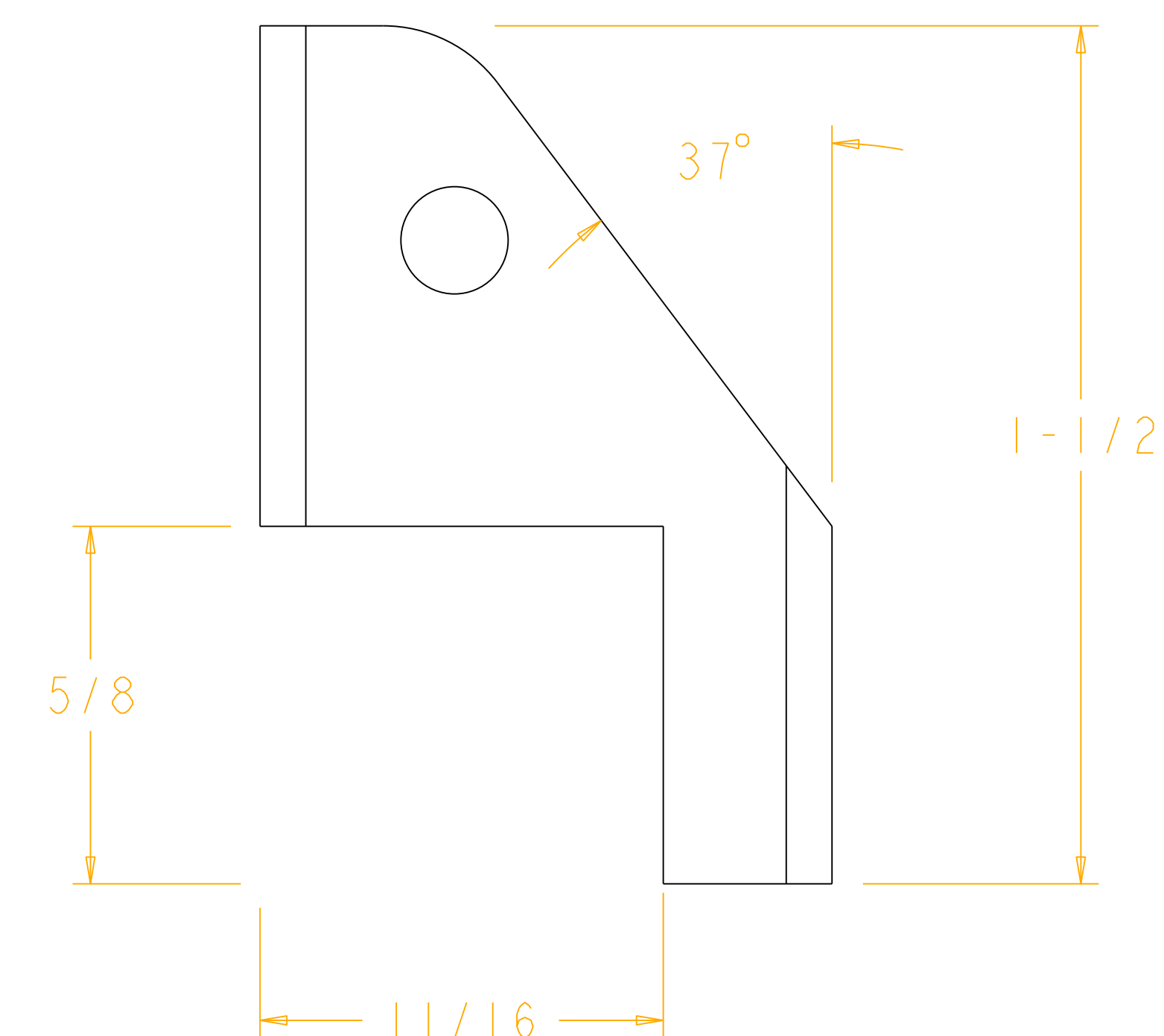
SCALE 3.000
cyclic gimbal fore-aft spring support



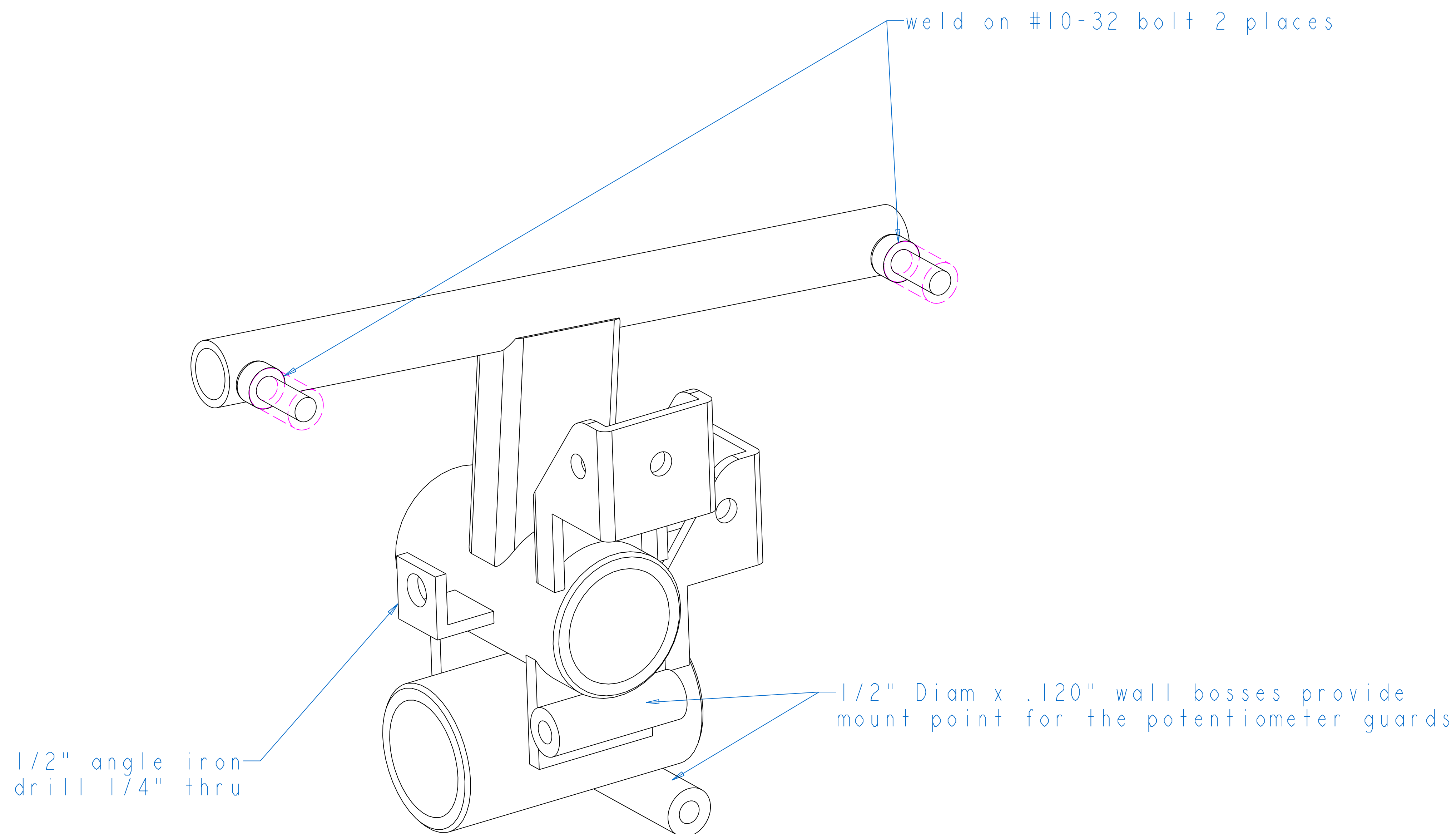
1" x .375" rectangular tubing, .100" wall



SCALE 4.000

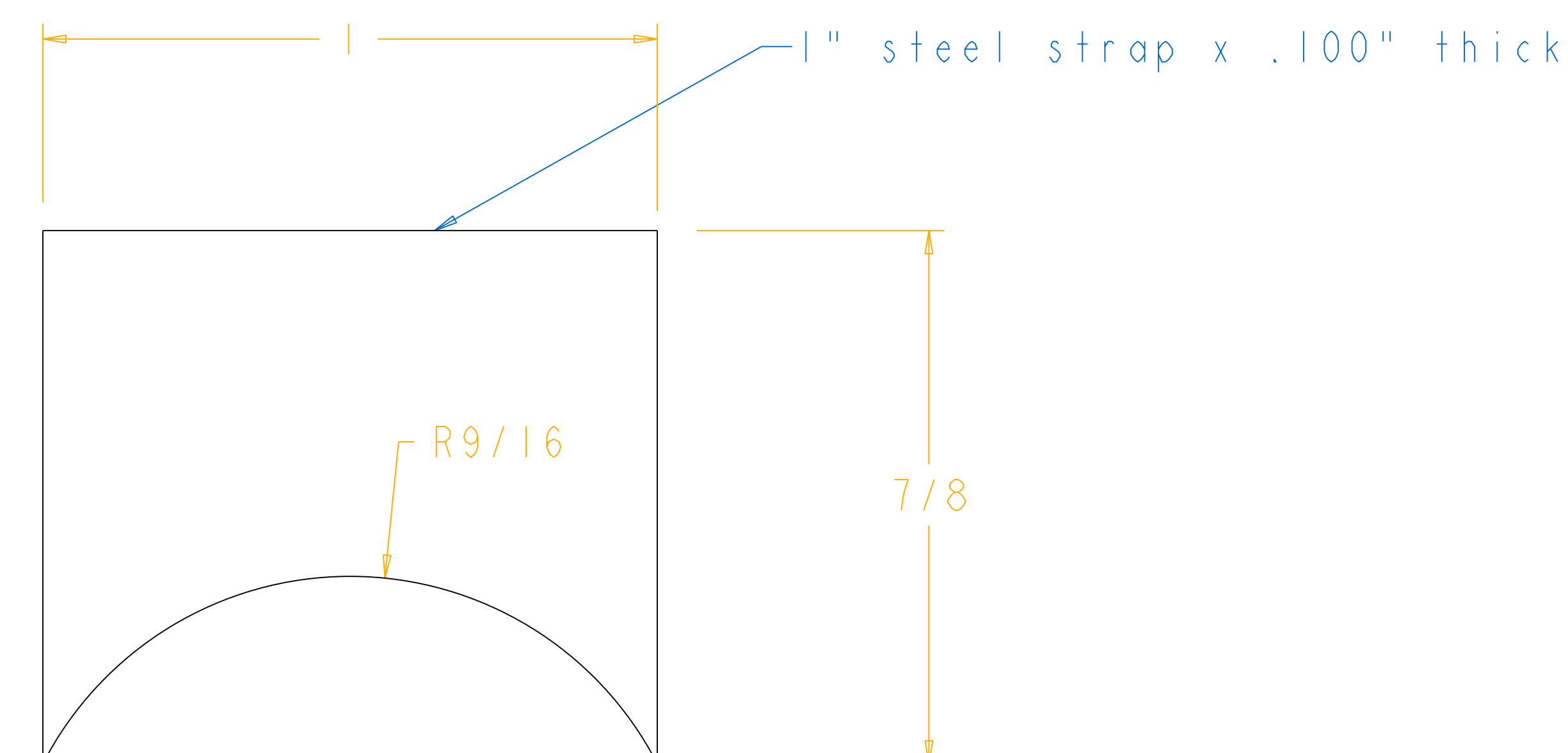


SCALE 4.000
cyclic gimbal potentiometer mount



SCALE 2.000

1/2" Diam x .120" wall bosses provide mount point for the potentiometer guards

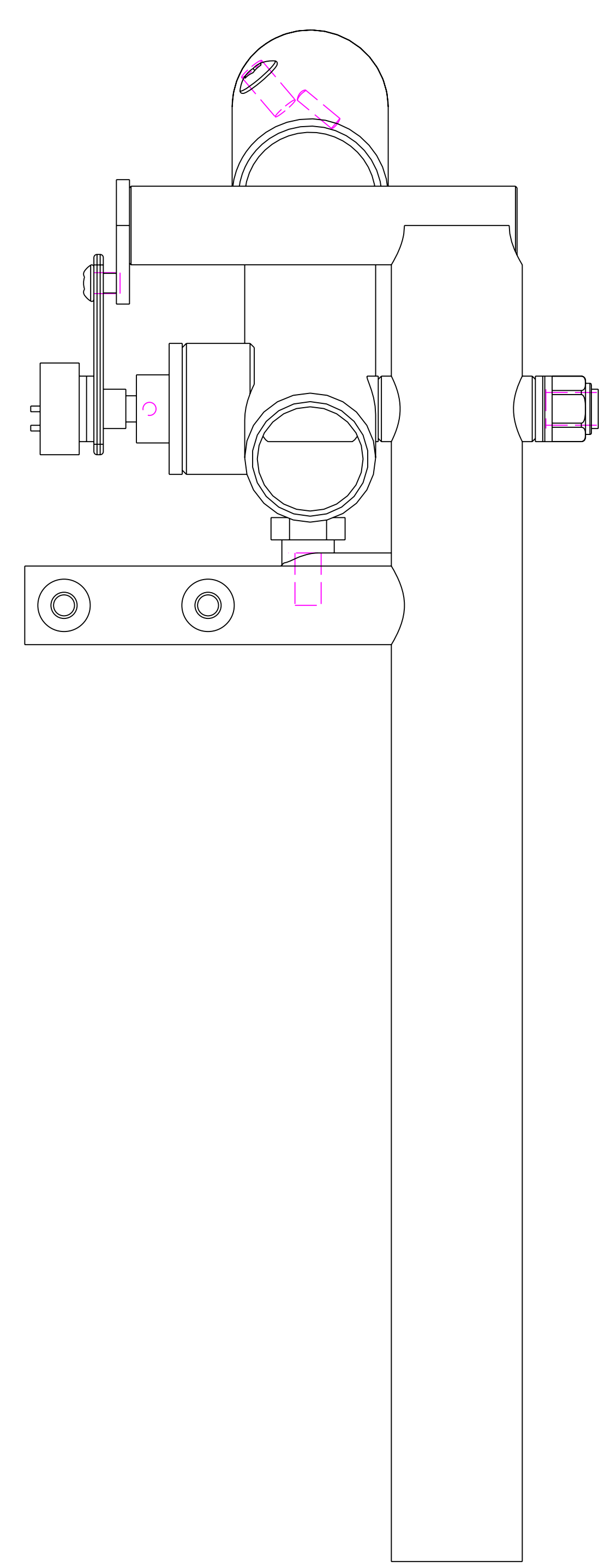
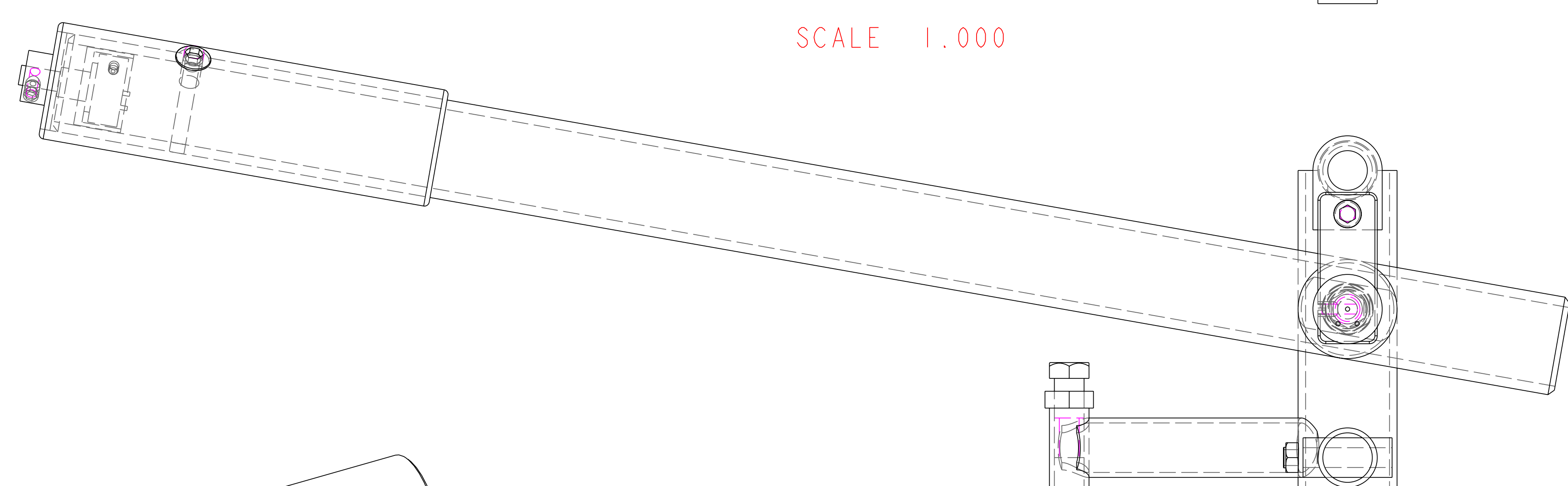


SCALE 5.000
cyclic gimbal tieplate

Collective Sub-Assembly

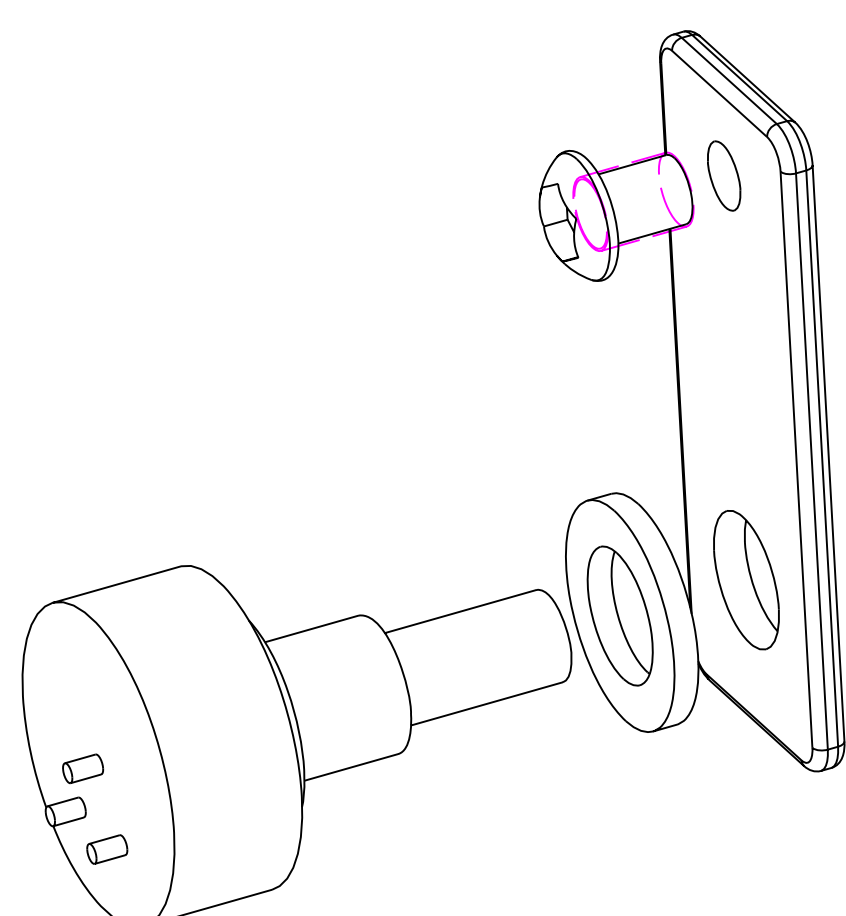


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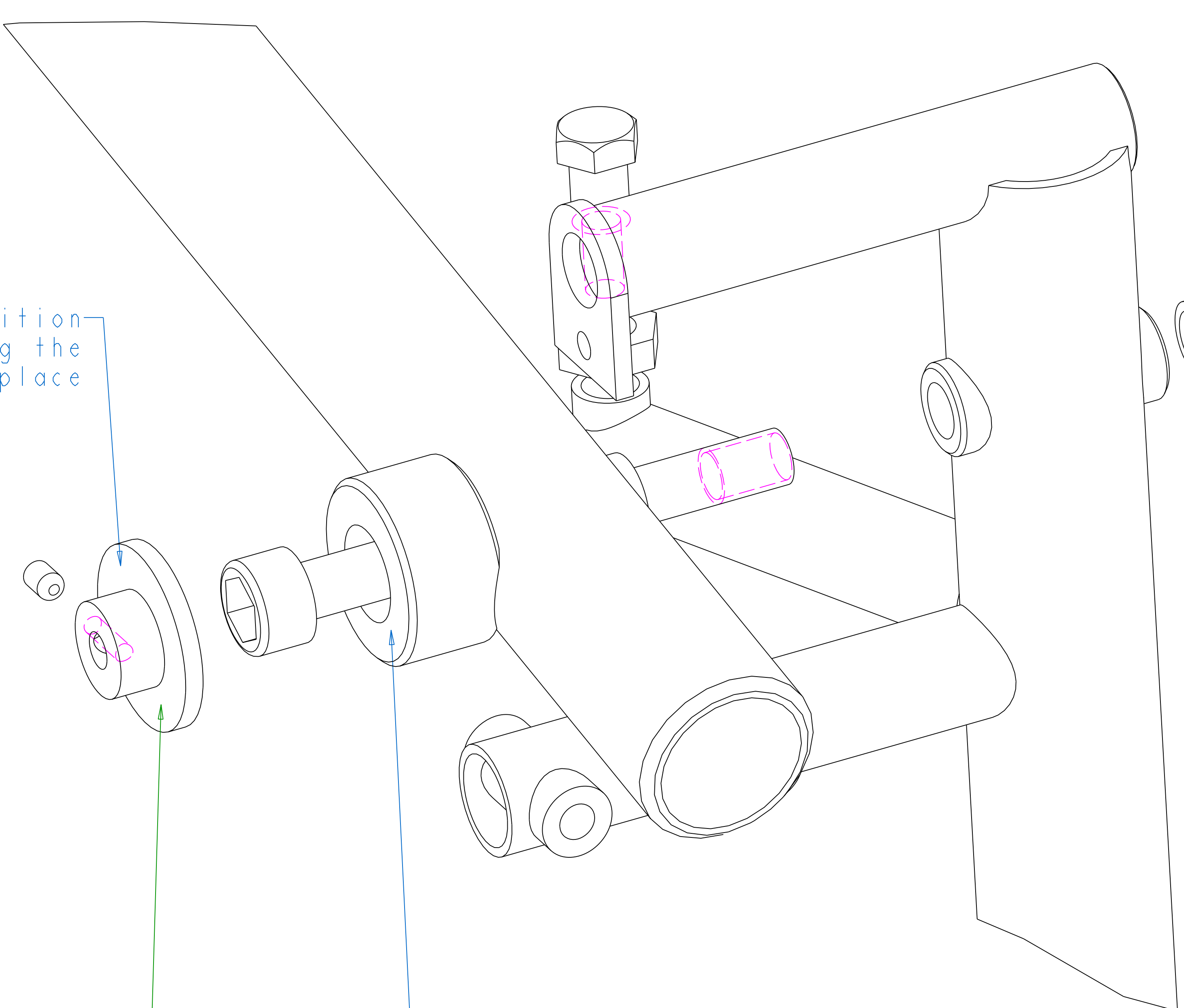


SCALE 2.000

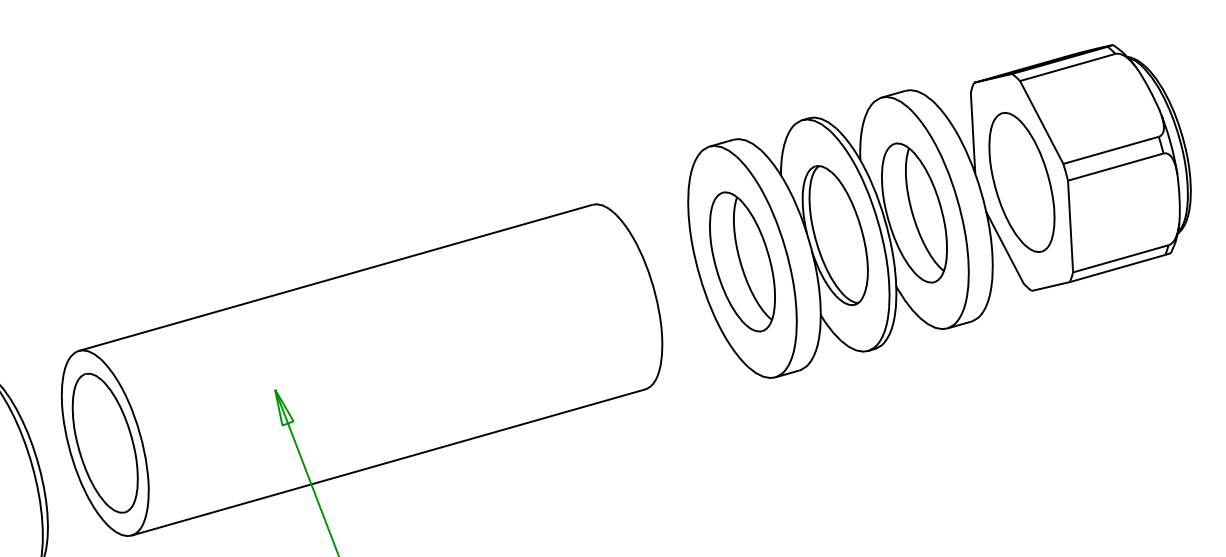
weld collar into position
AFTER pres-fitting the
pivot bolt into place



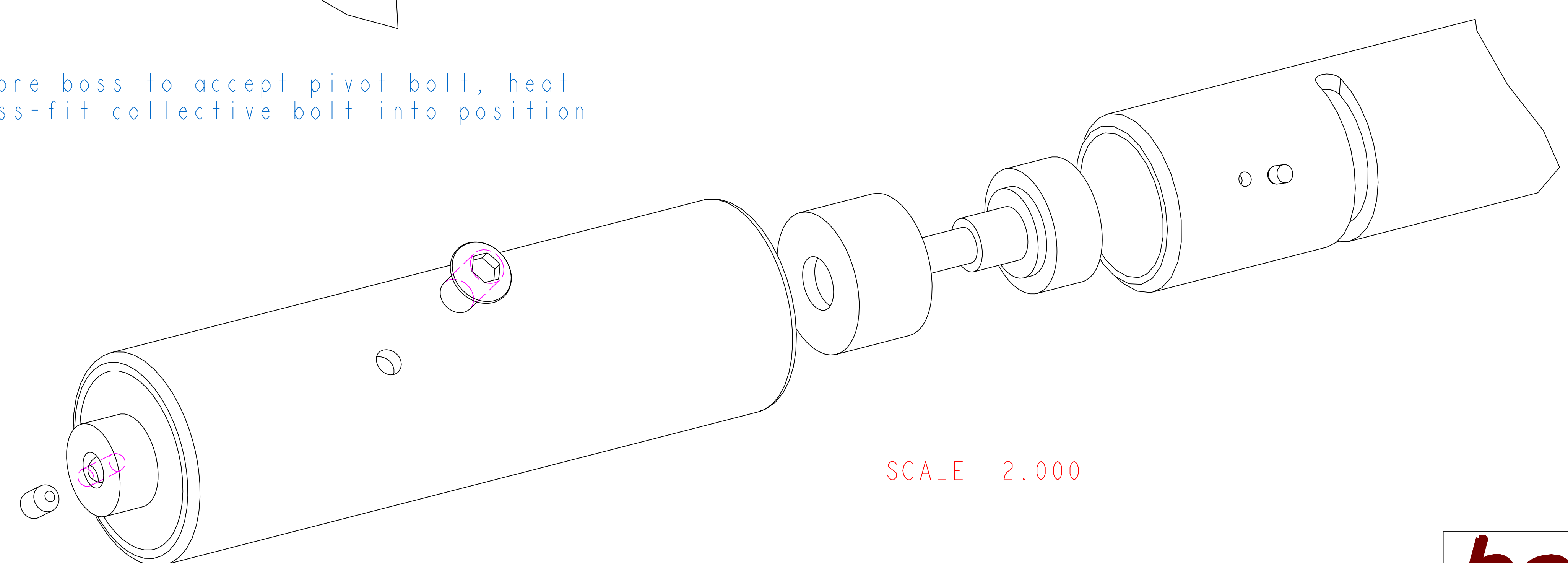
"collective grip collar"



drill and counterbore boss to accept pivot bolt, heat
collective and press-fit collective bolt into position



"collective pivot bushing"



SCALE 2.000

fab from 7/8" steel strap

1.2000

9-1/4

12-3/4

use 5/8" spud MTL or solid bar

1-1/8

3-13/16

22.0°

3-5/8

7/8

2-1/2

1-3/4

3-3/4

3-11/16

3/4" OD x .120 wall, 1-9/16" OAL

1/2" diam bar or spud material

drill 1/2" thru hole for wire passage

3/4" OD x .065" wall tubing

tap #10-32 thru

tap 3/8-24 thread

drill 3/16" thru

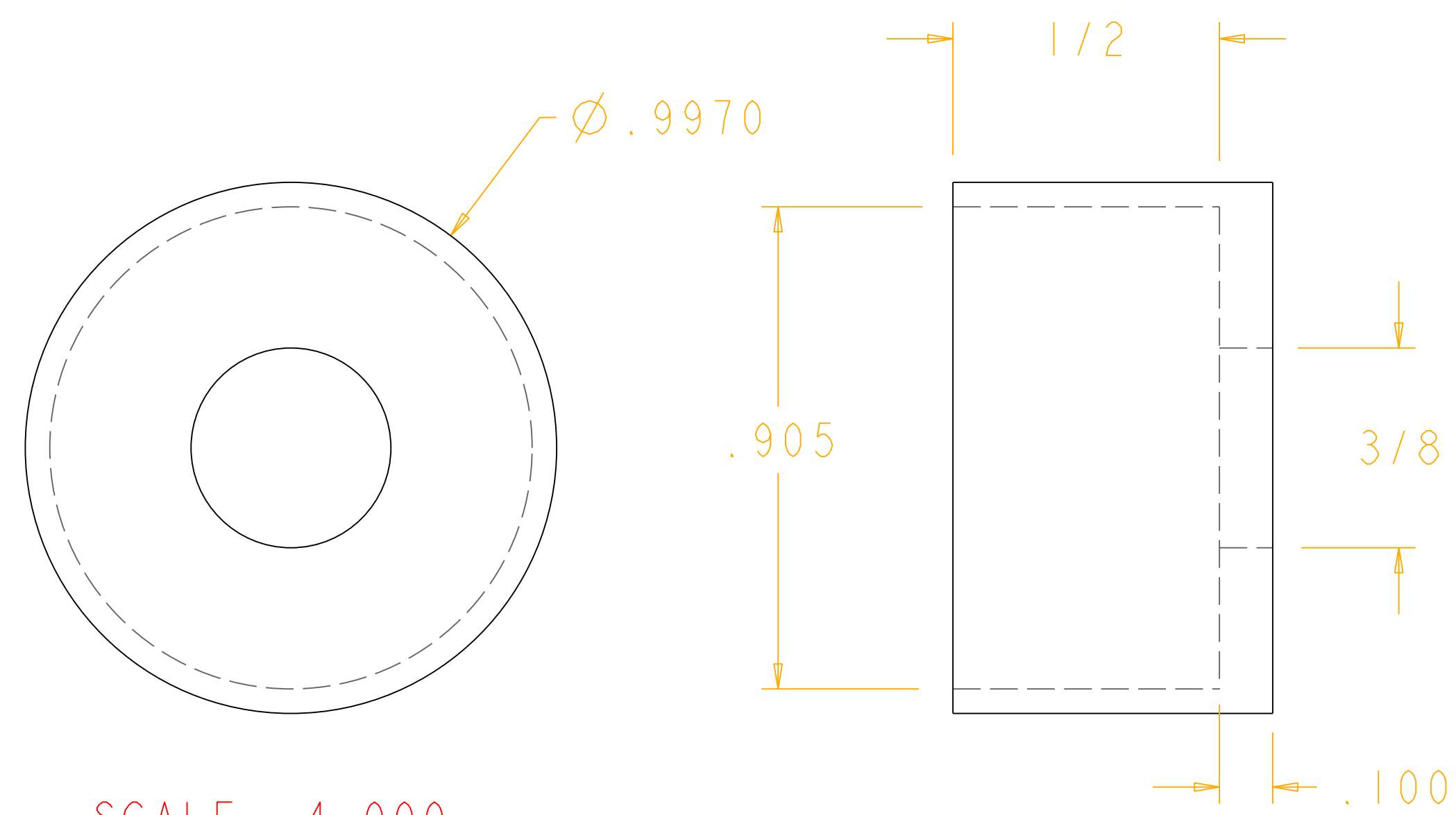
1-1/4" OD x .120" wall tubing

SCALE 1.500

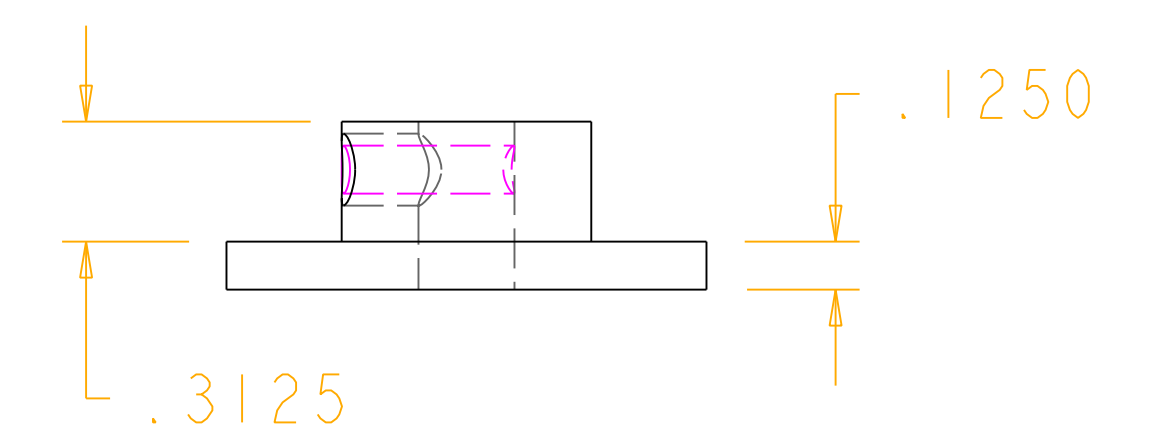
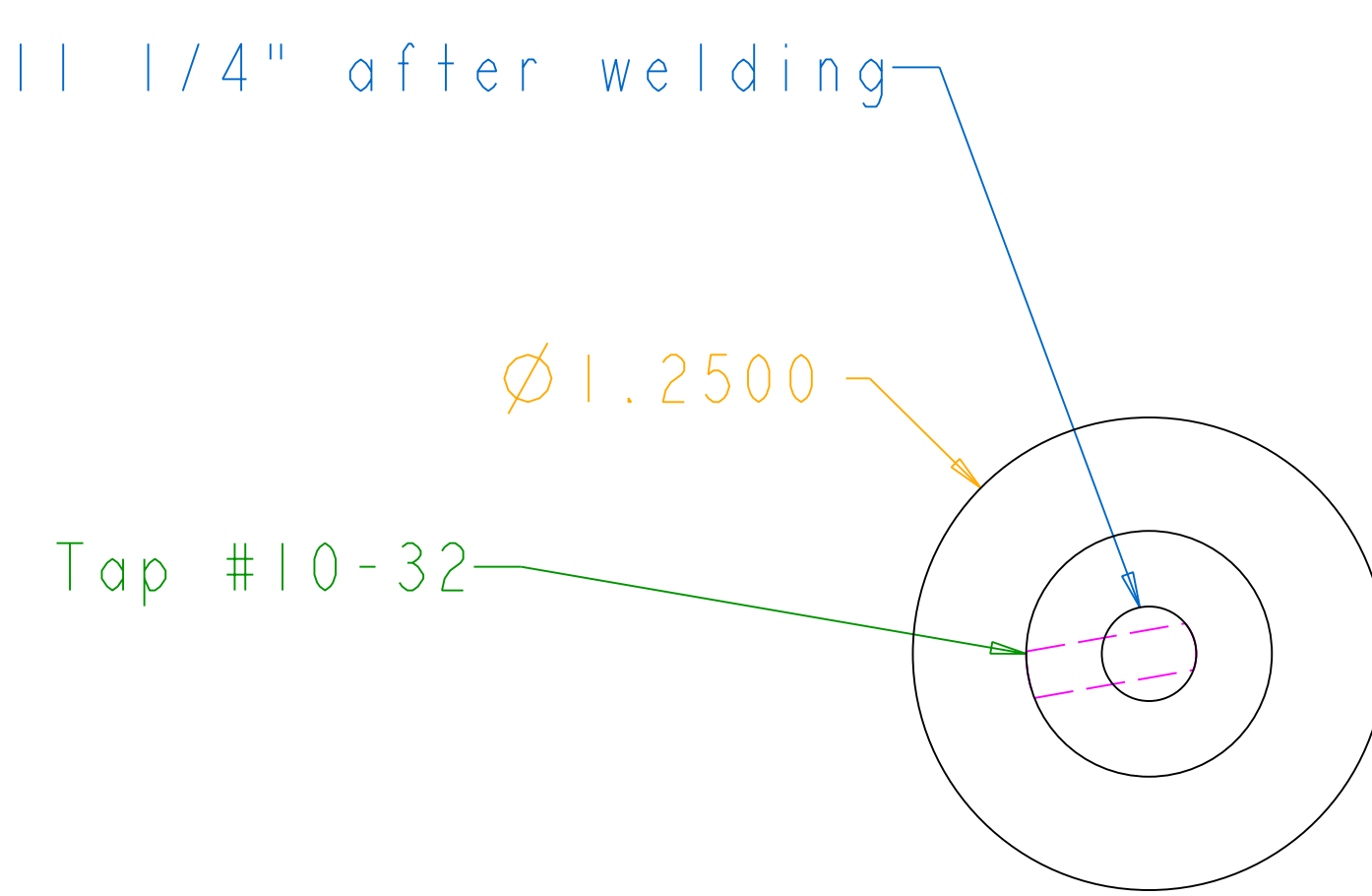
SCALE 1.500
Collective Riser Weldment

heli-chair
Mechanical Drawing Set

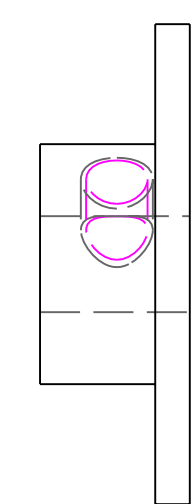
Revision	Sheet
A3	22 of 29
15 Feb 2007	



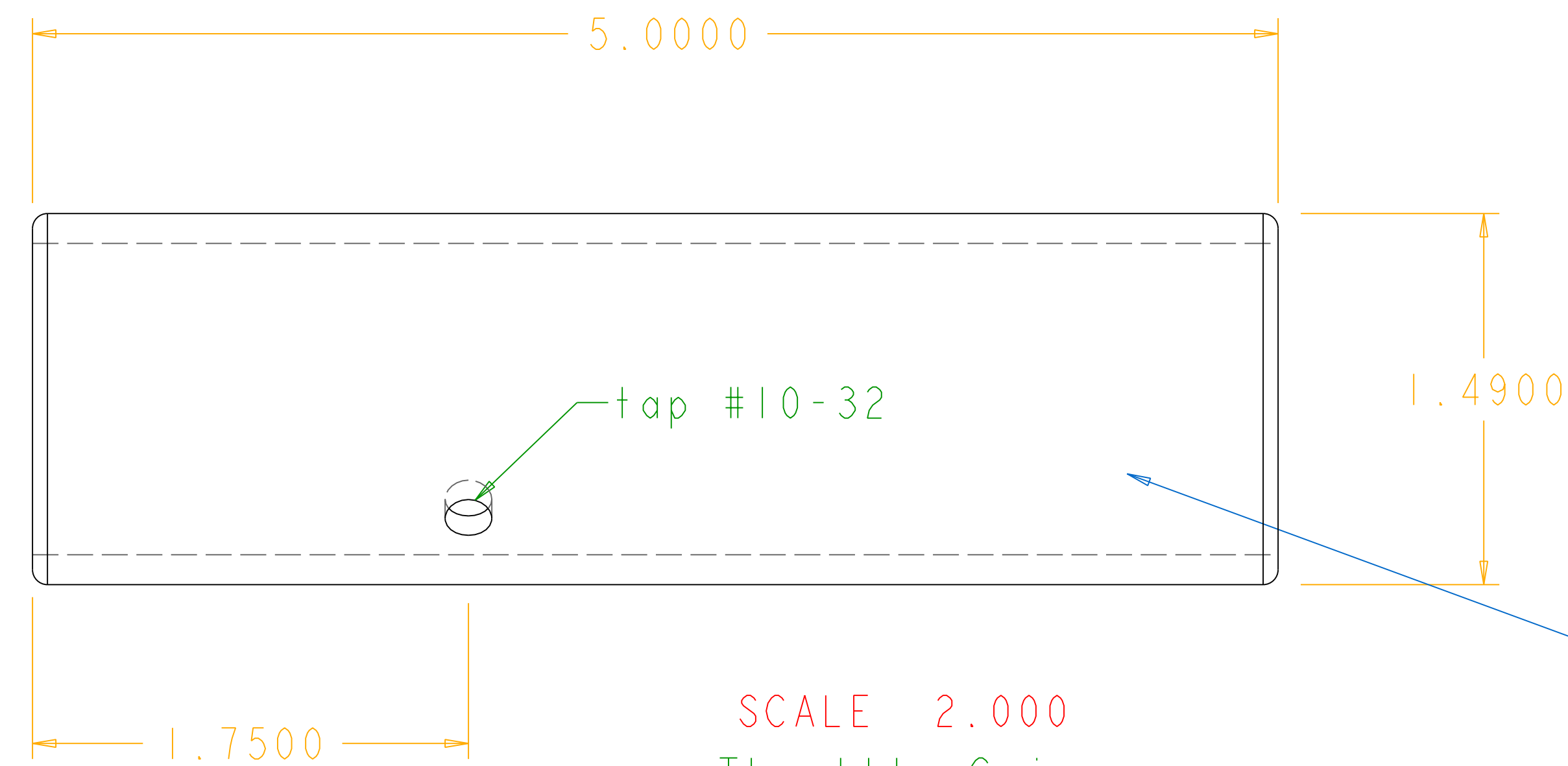
SCALE 4.000
Throttle Pot Grip



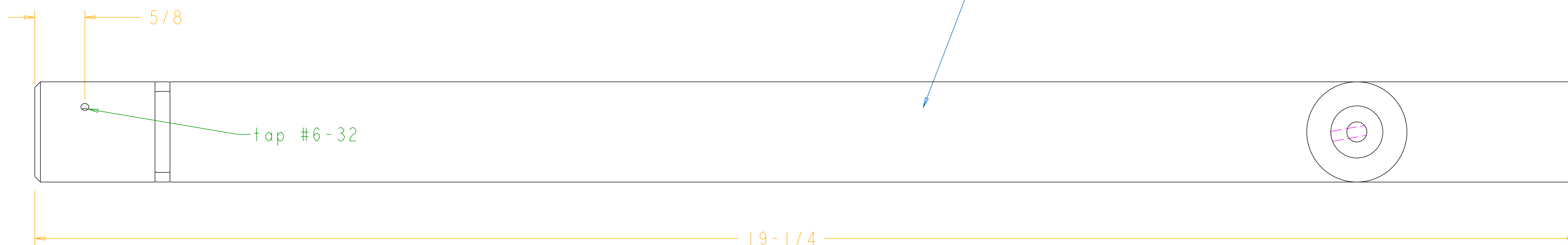
SCALE 2.000
Throttle and Collective Grip Collars
Collar welded to throttle grip and collective boss



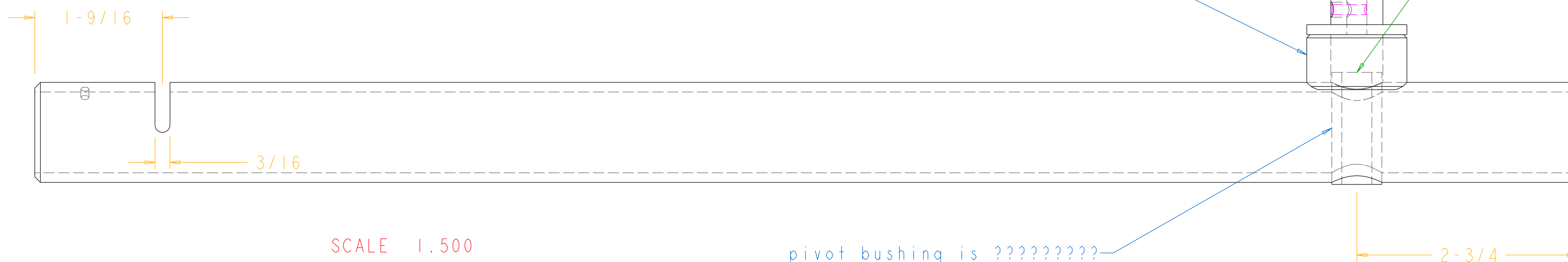
SCALE 2.000



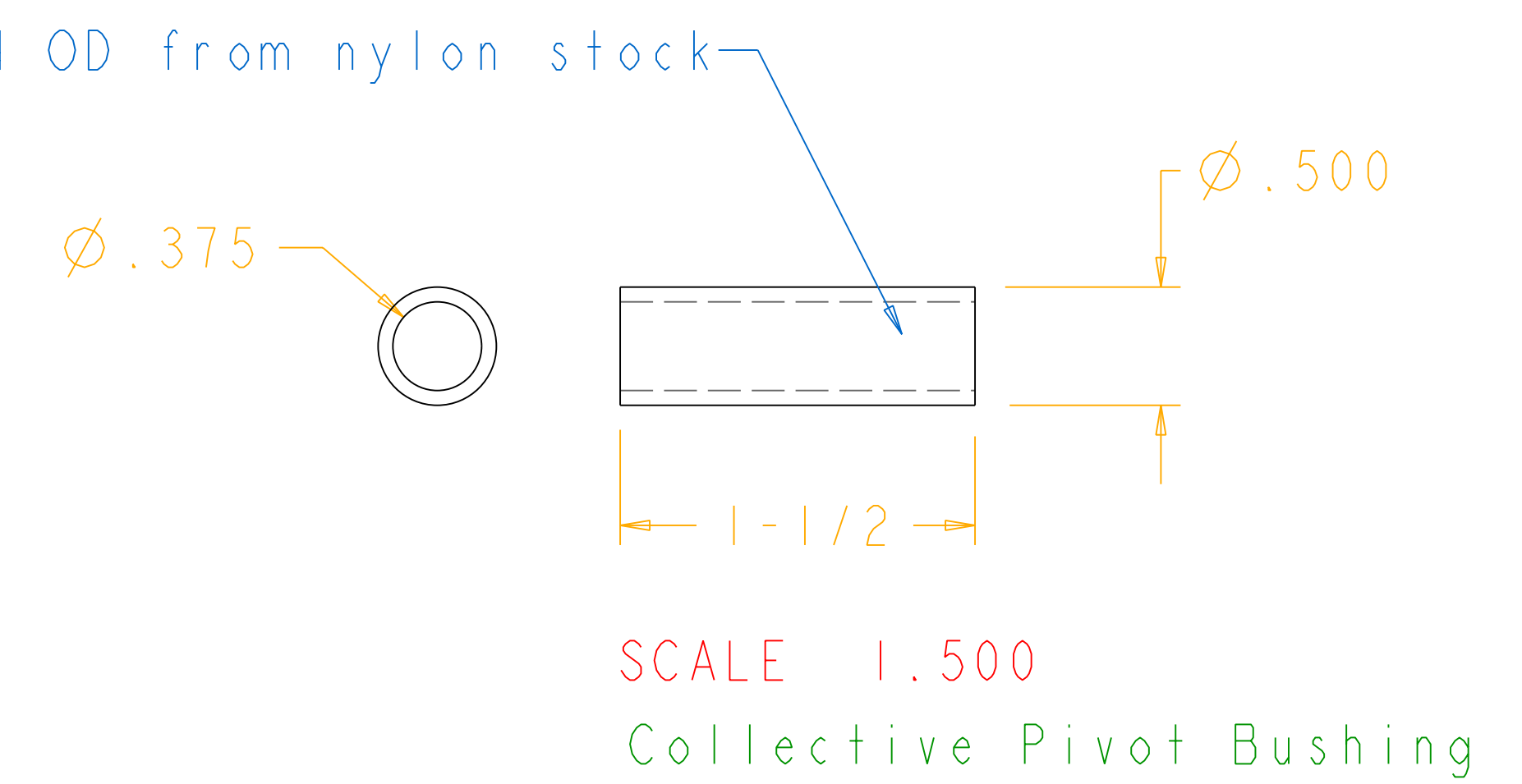
SCALE 2.000
Throttle Grip



SCALE 1.500
Collective Weldment

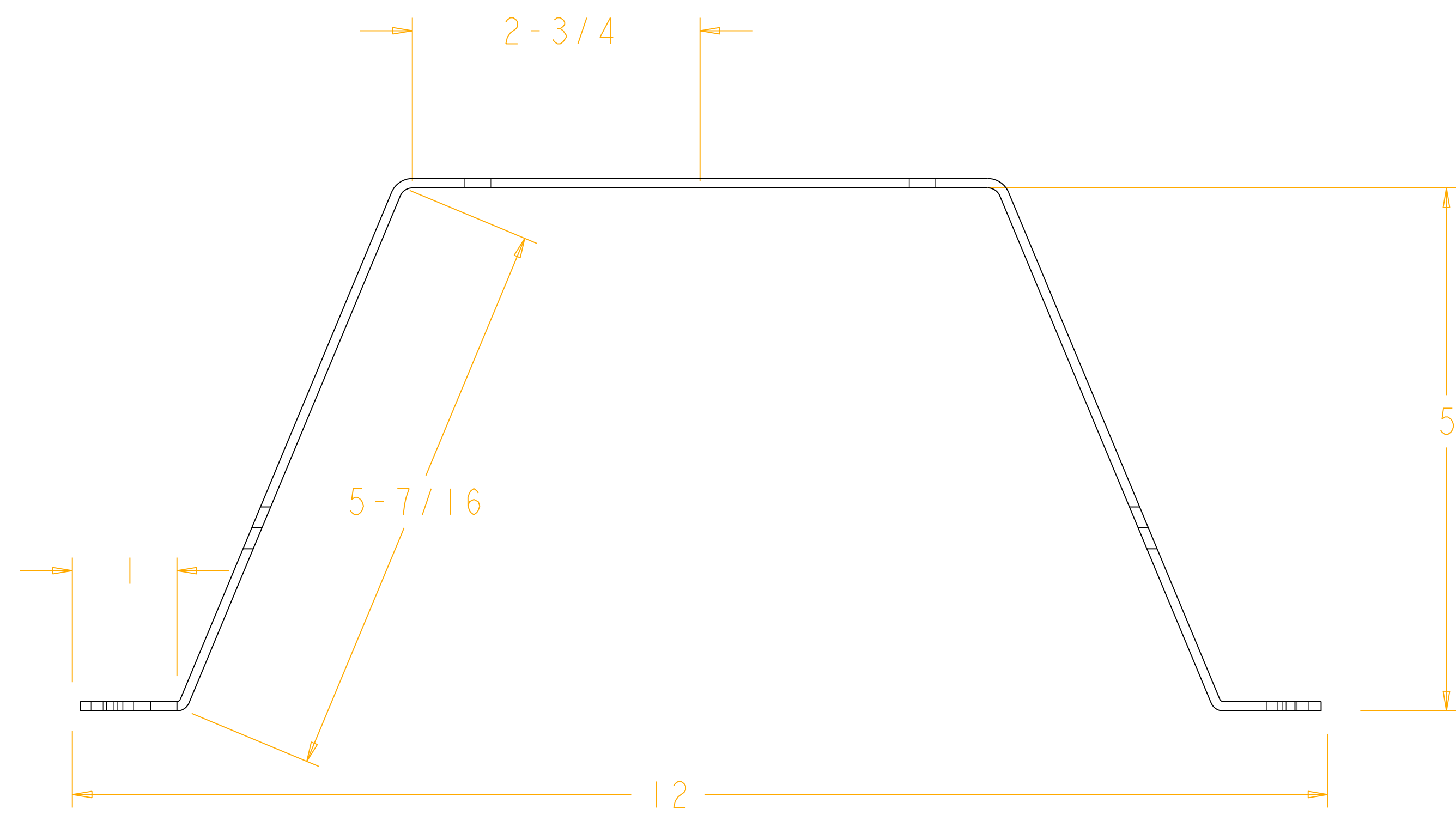


pivot bushing is ??????????

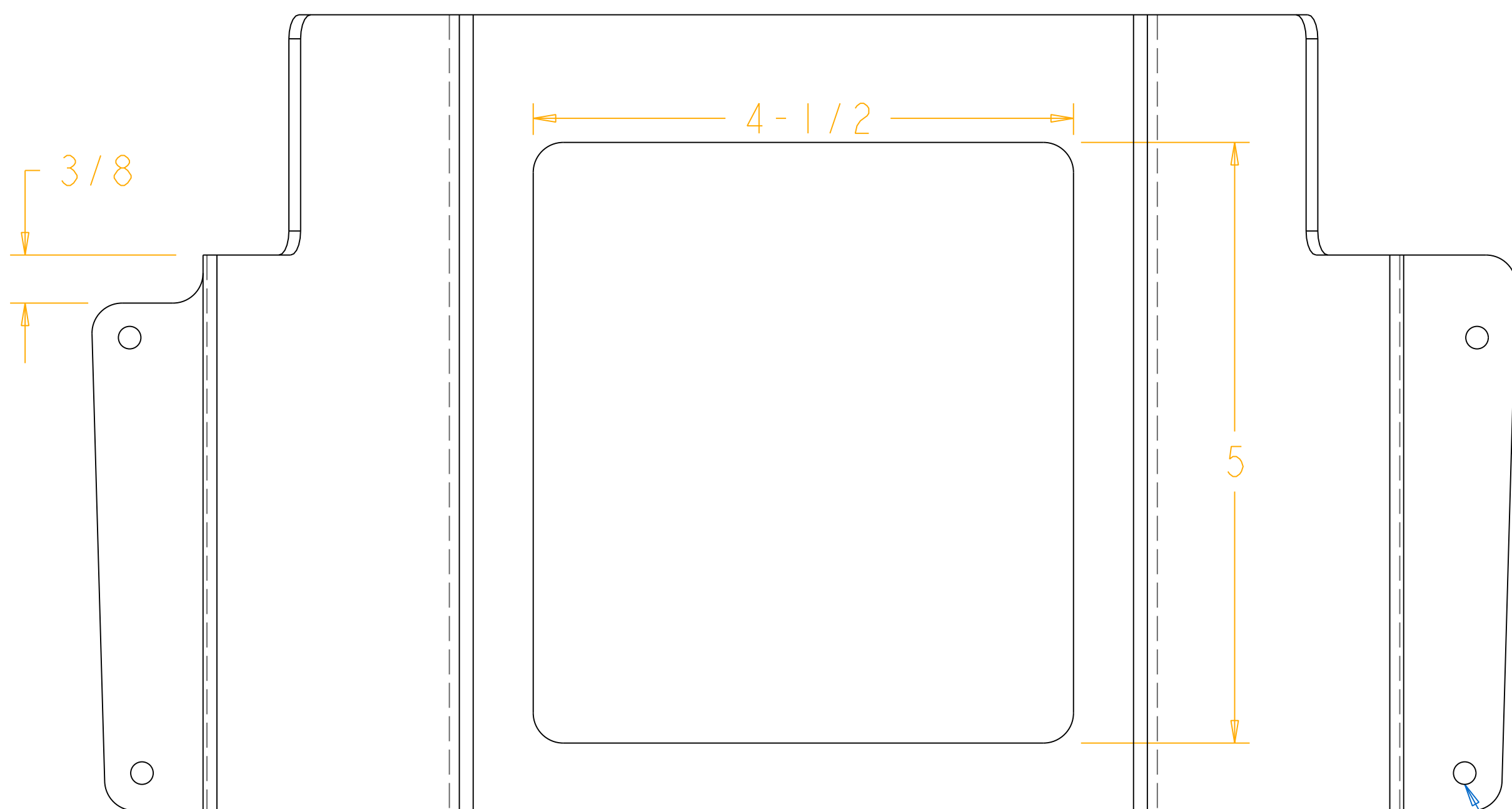
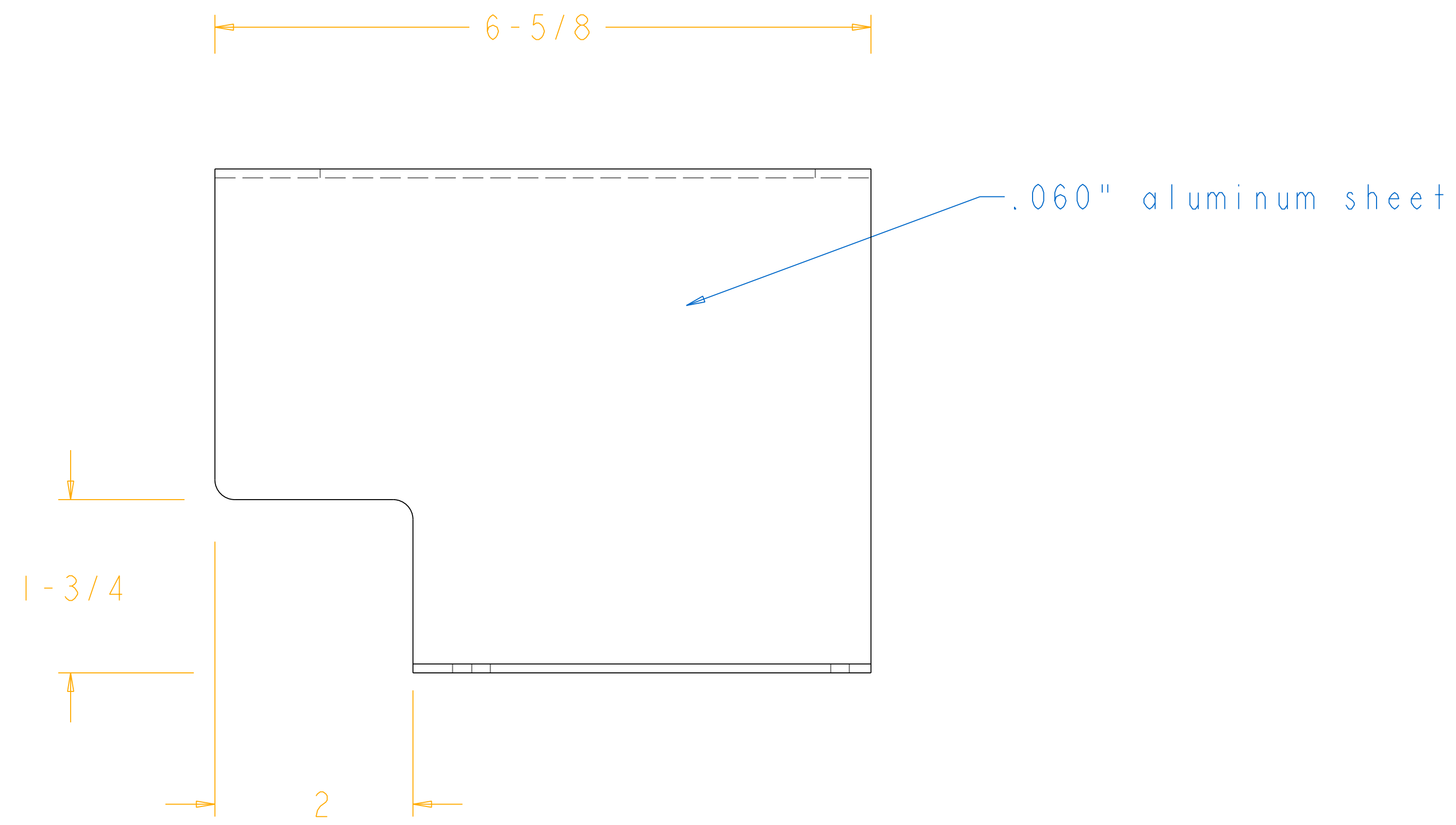


SCALE 1.500
Collective Pivot Bushing

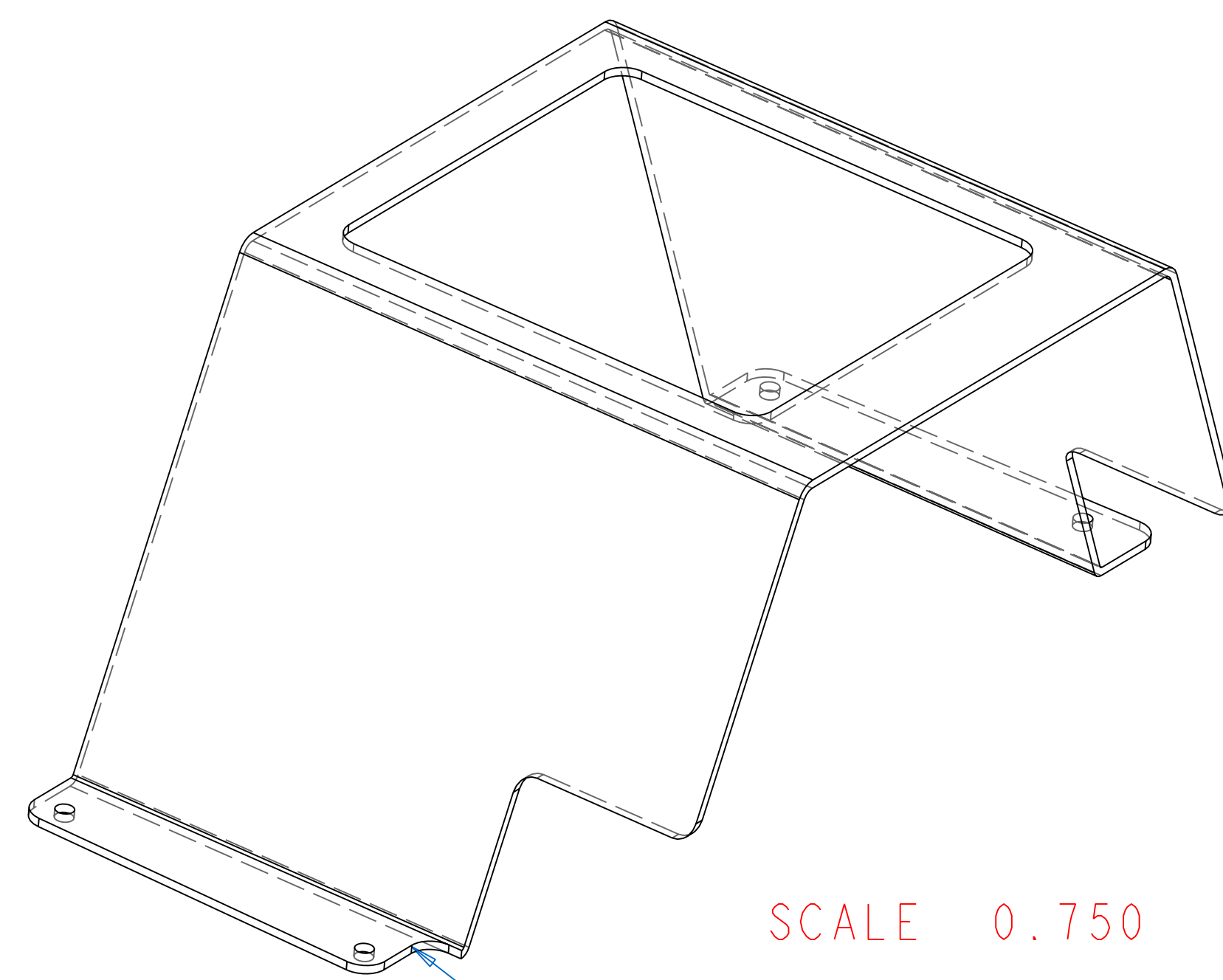
Sheet Metal Guards
and auxiliary box



SCALE 1.000
Cyclic Gimbal Housing



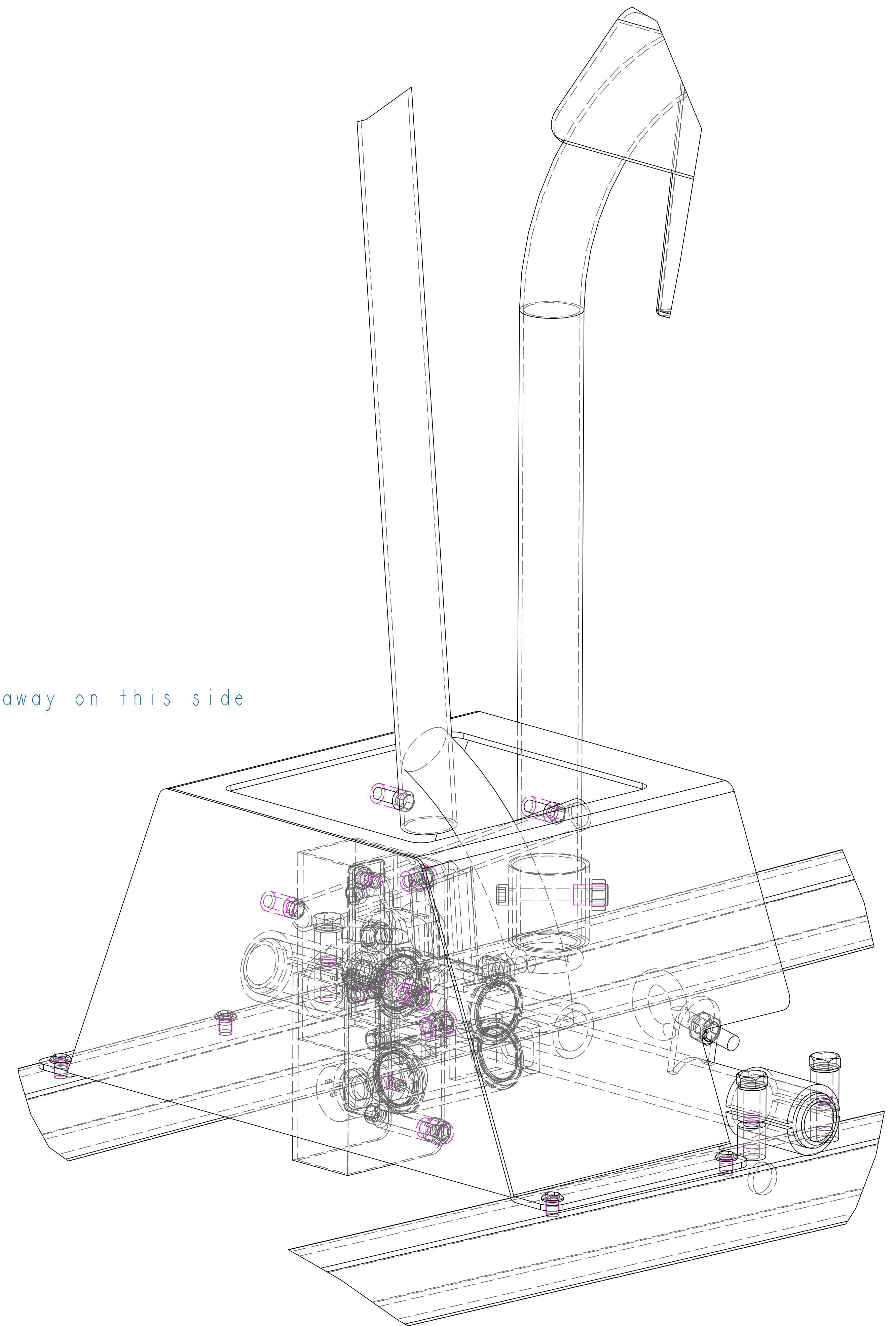
SCALE 1.000
Cyclic Housing Front Plate



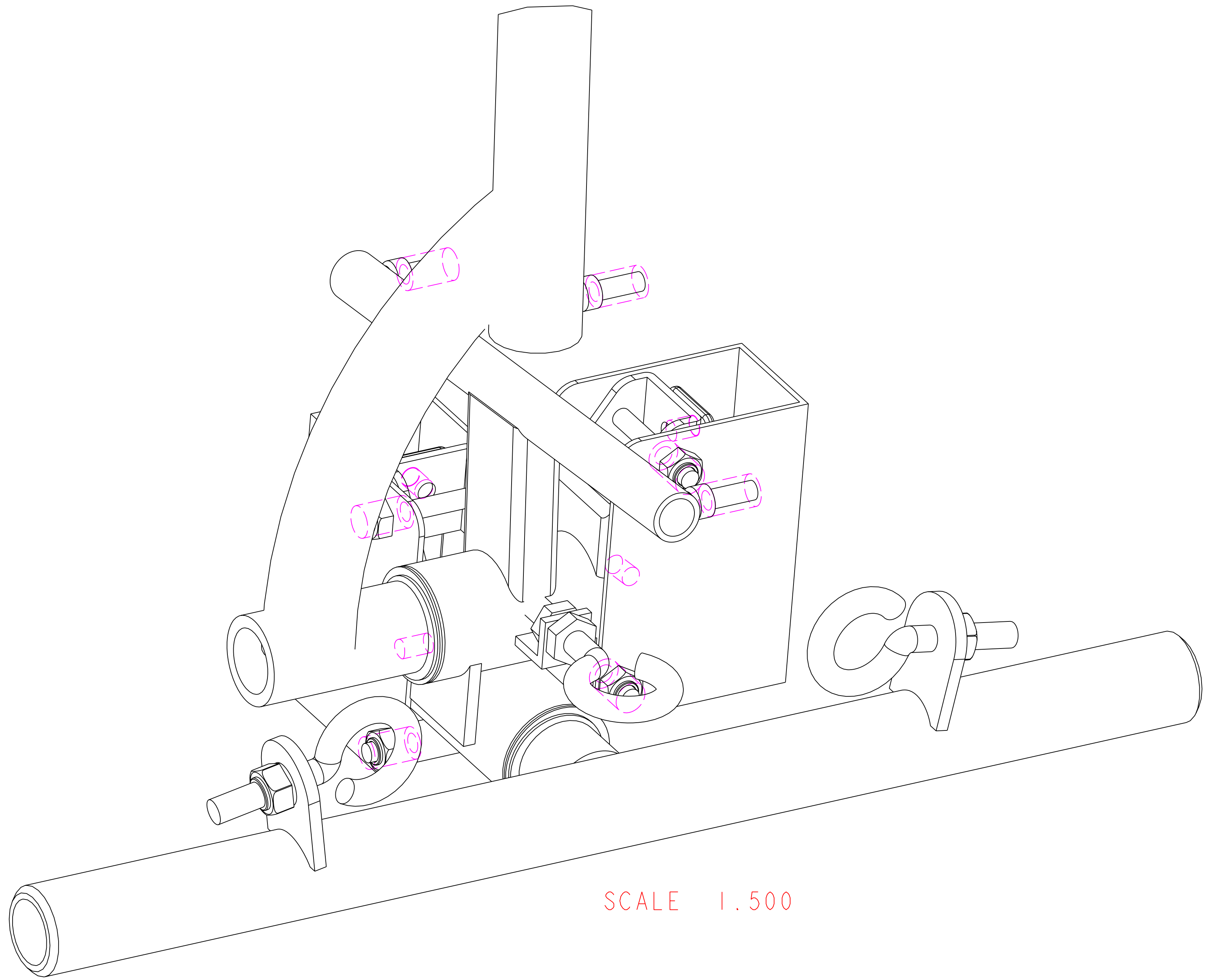
SCALE 0.750

taper to match frame

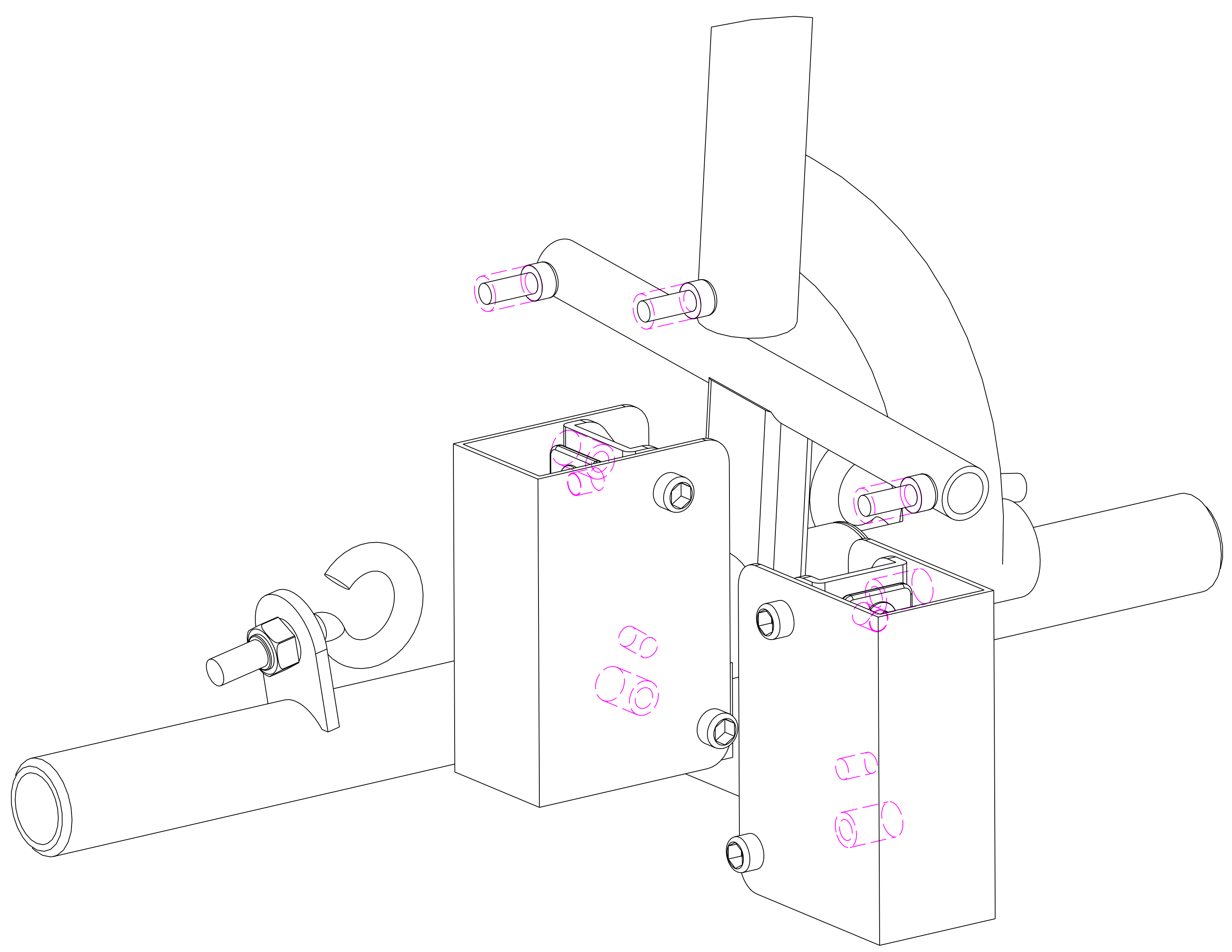
drill 4 holes during assembly for #10 screw
transfer pattern to base frame and tap holes
(transfer using 1/8" bit, then open holes and tap)



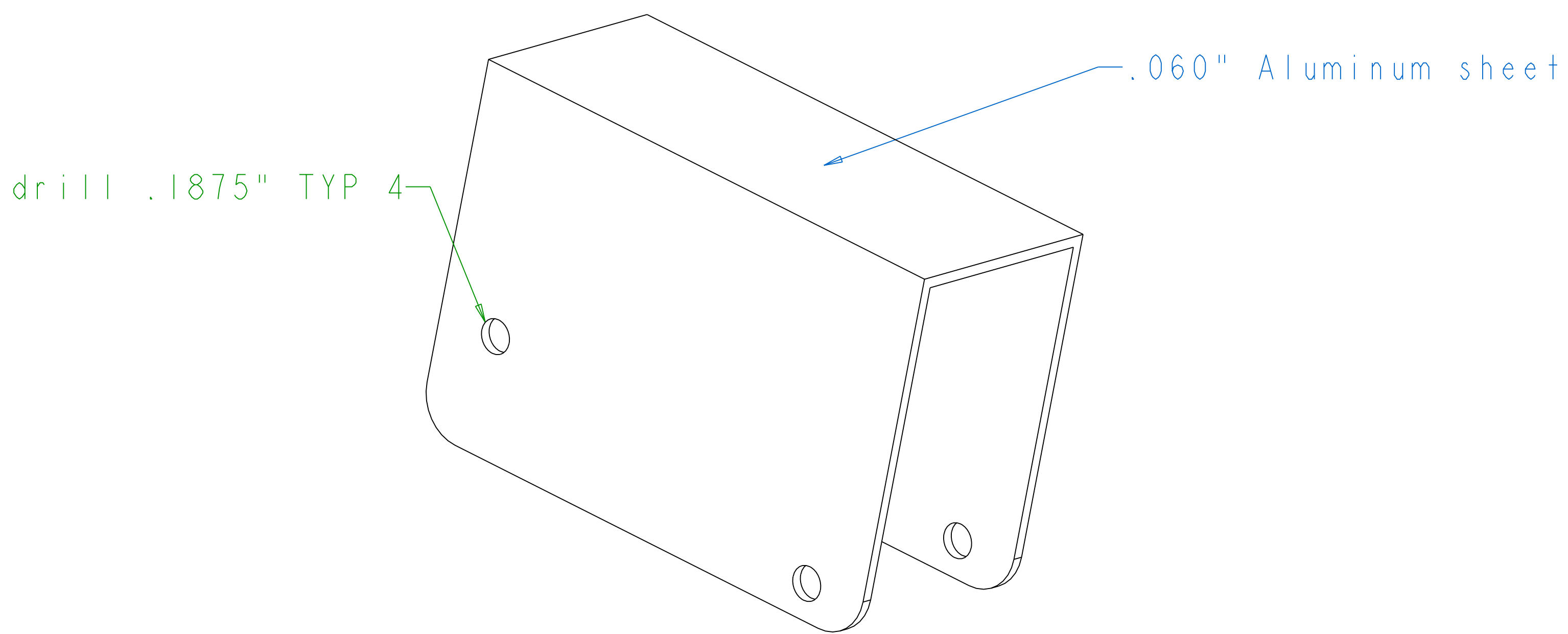
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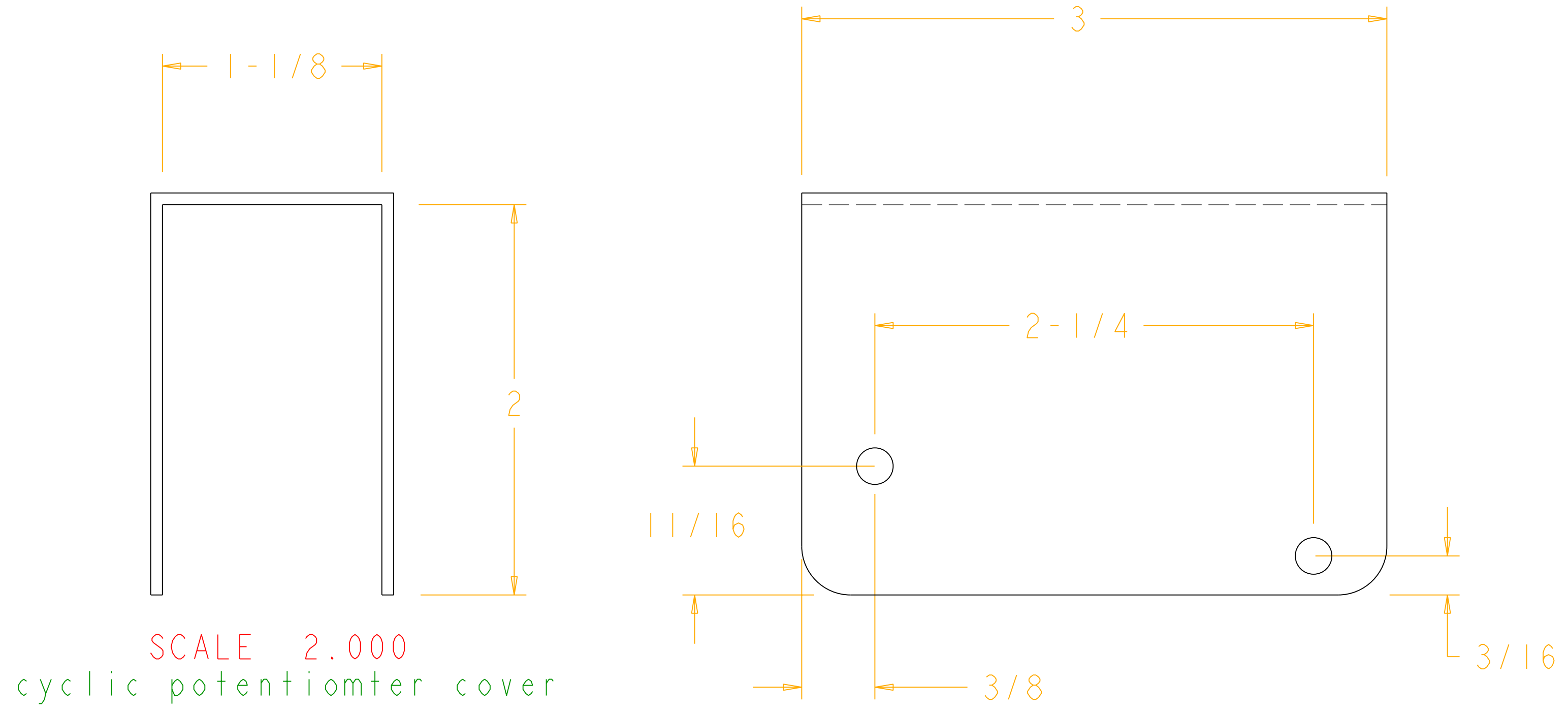
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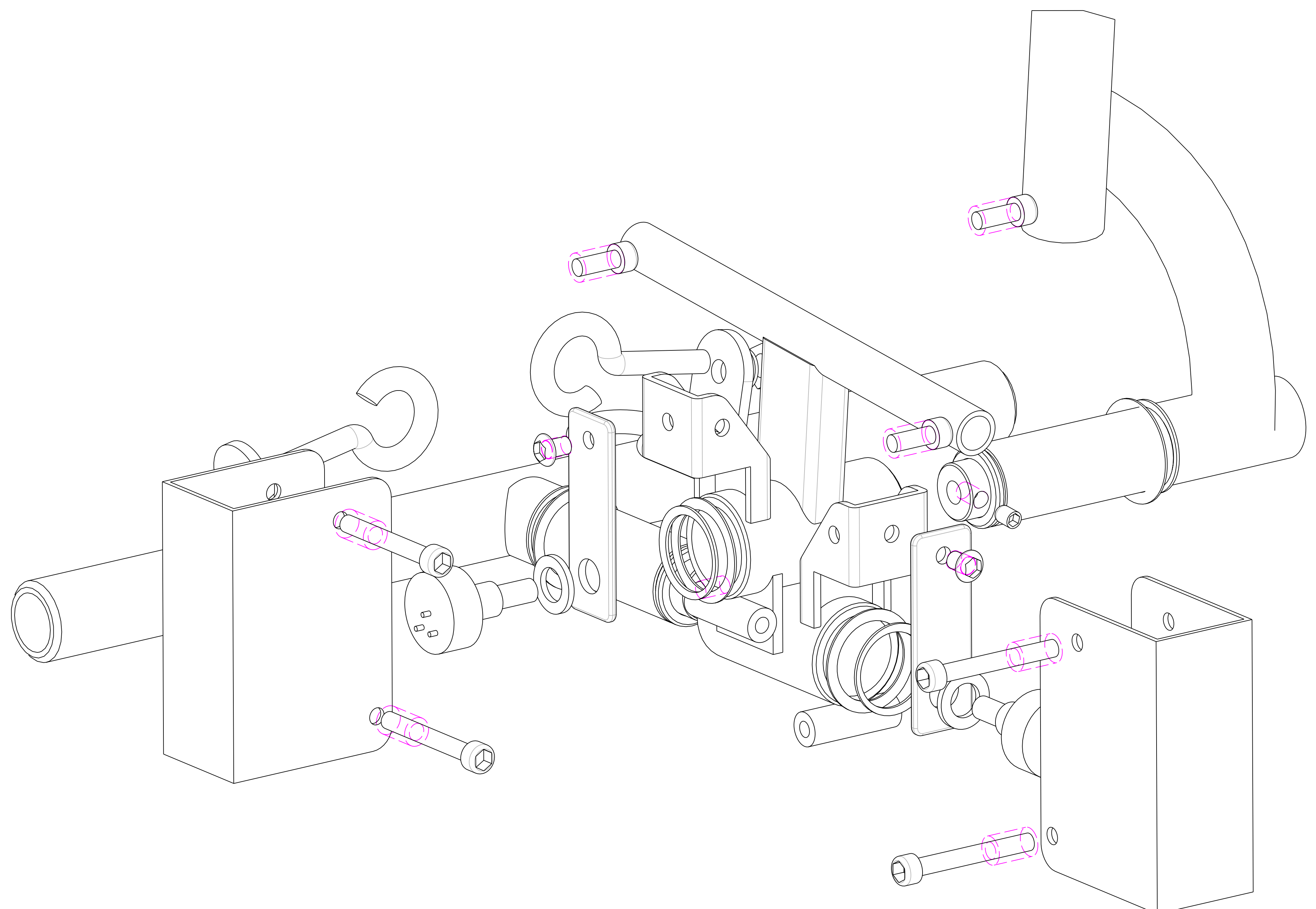
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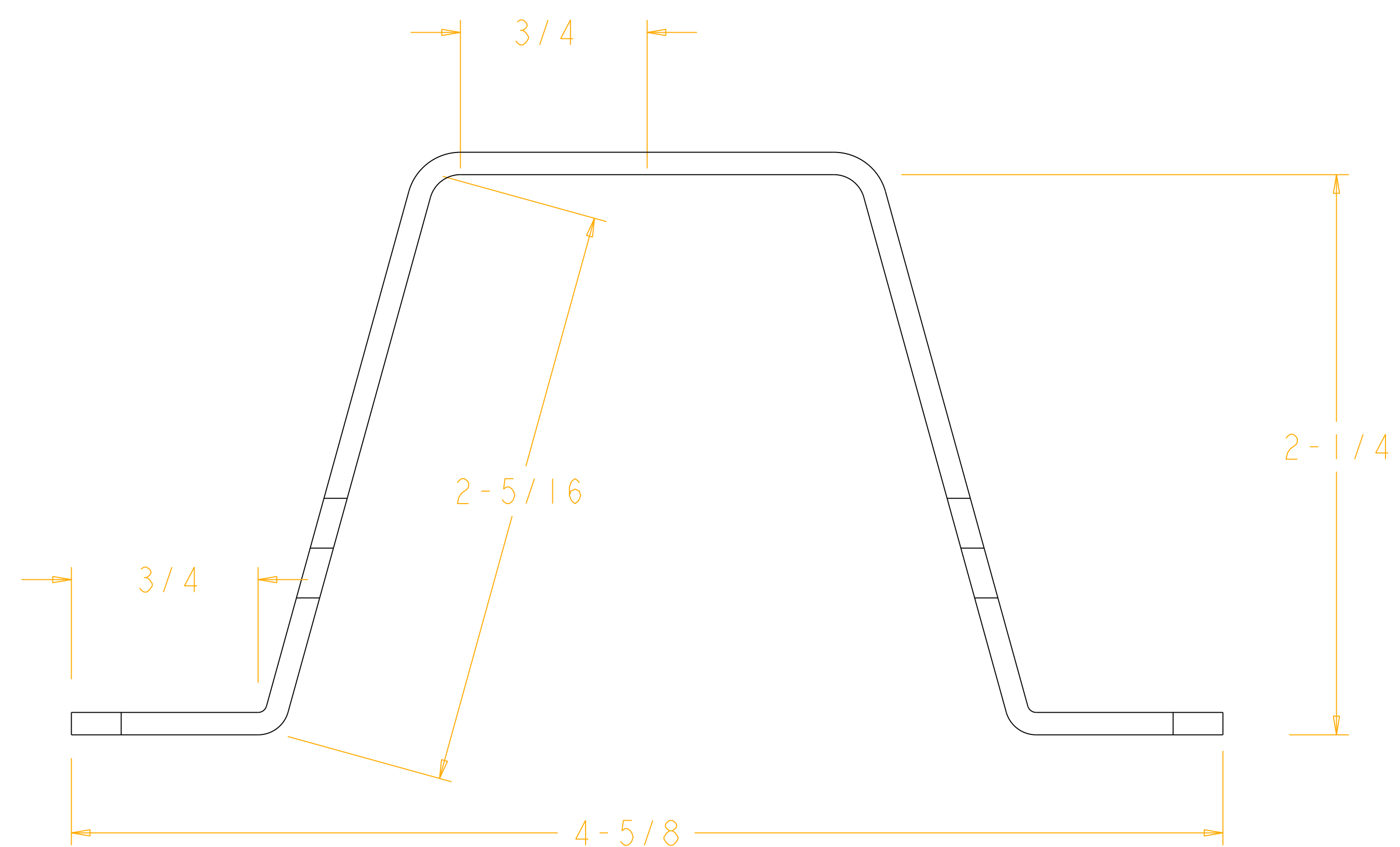
SCALE 2.000



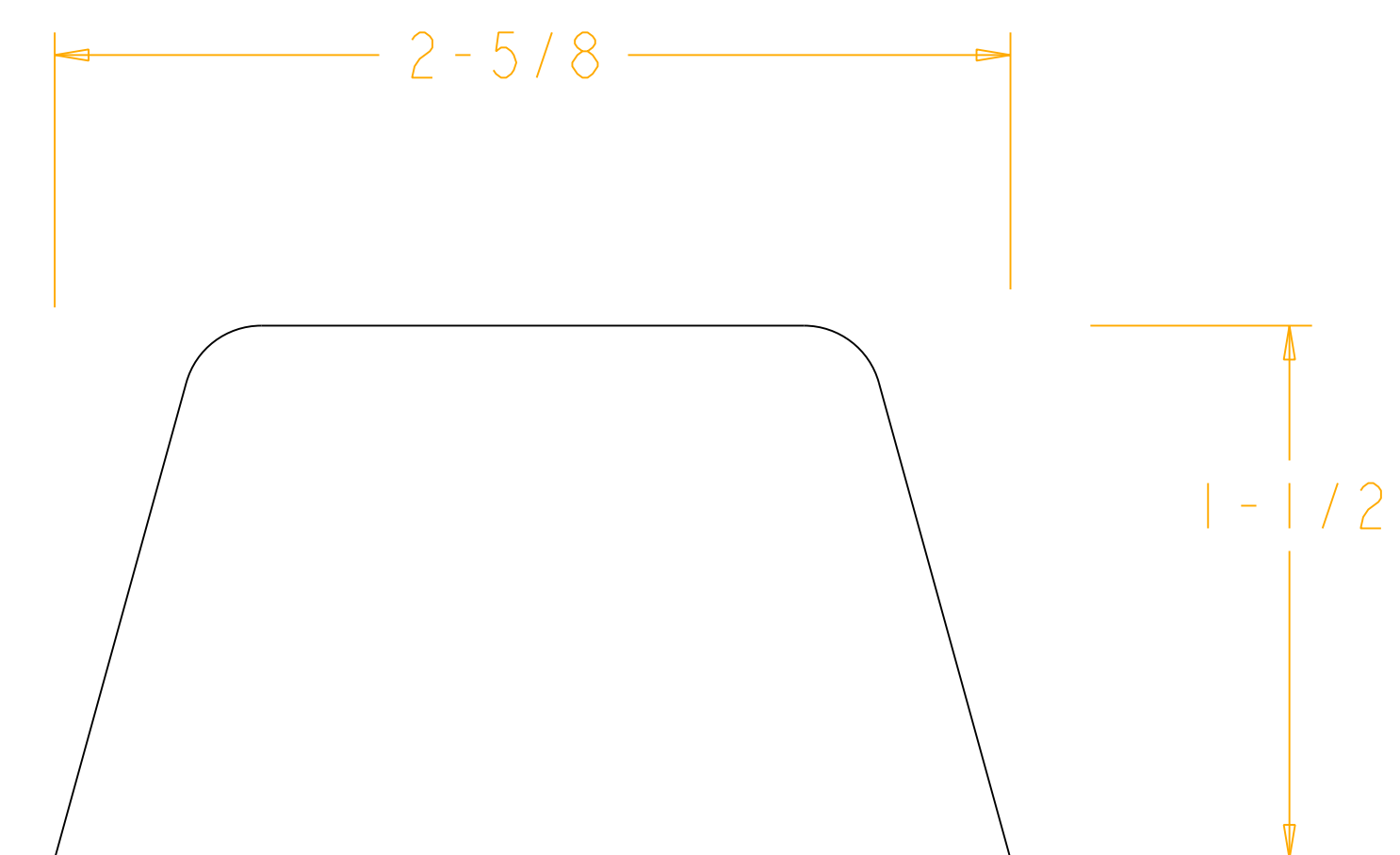
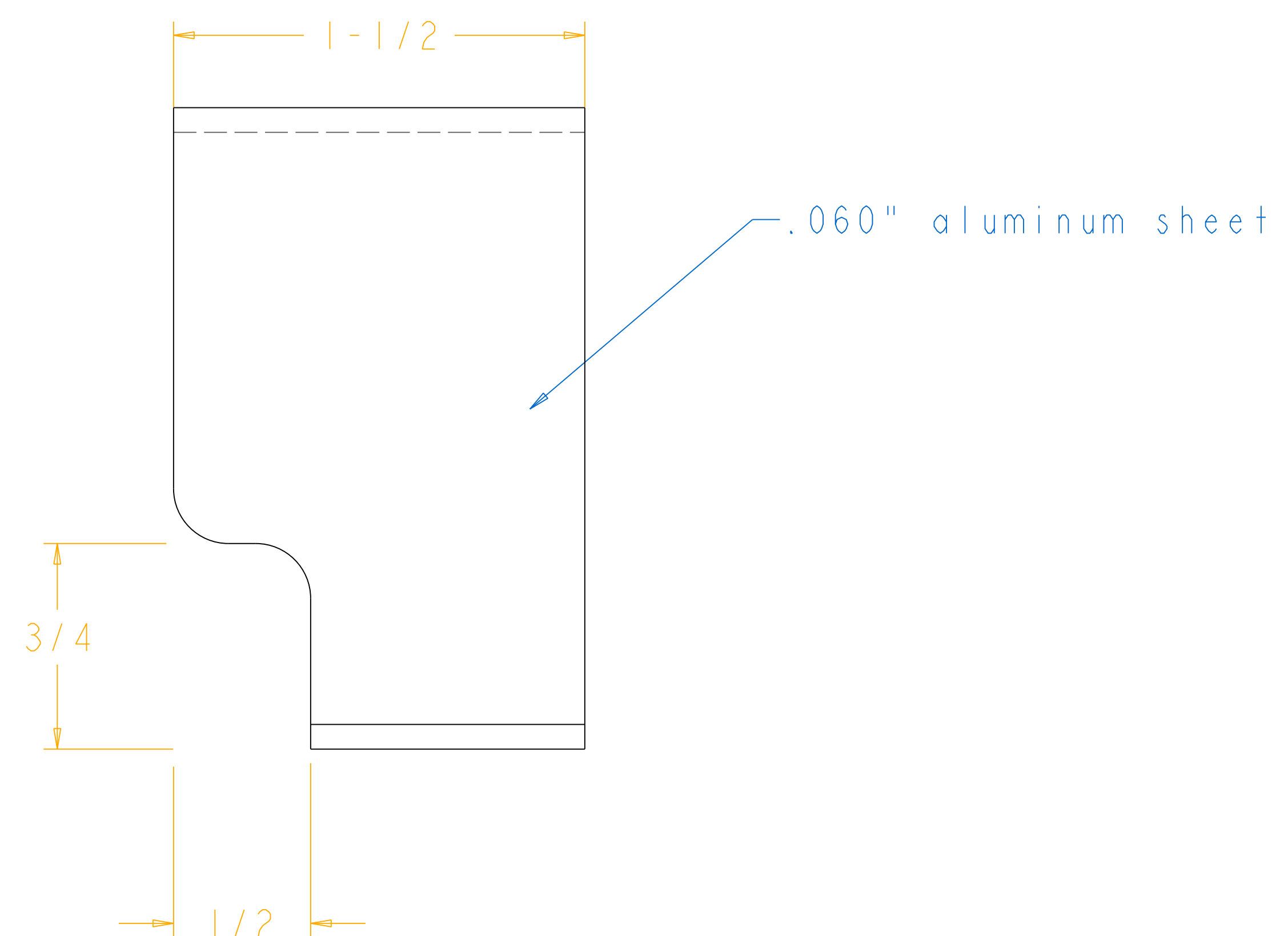
SCALE 2.000
cyclic potentiometer cover



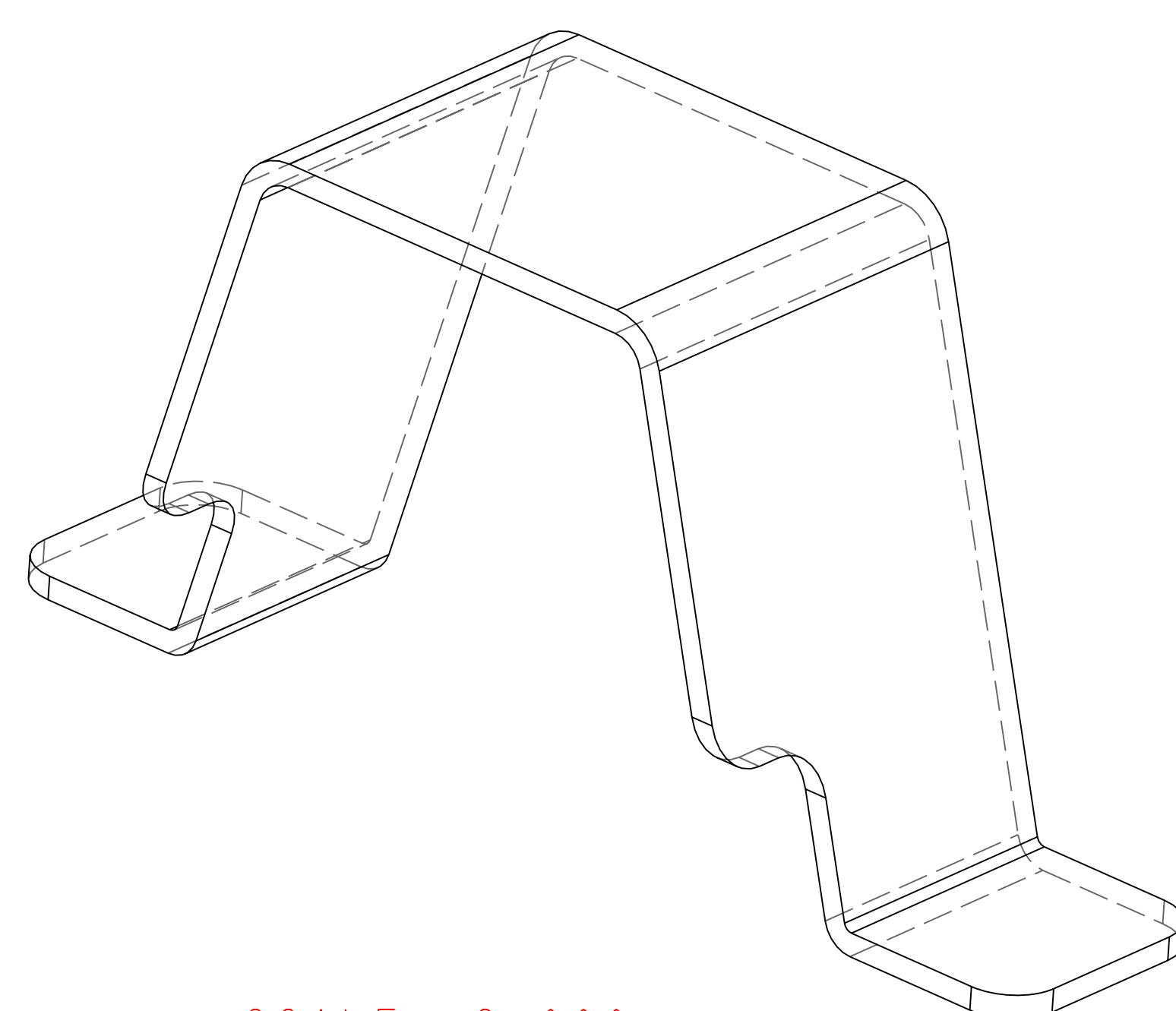
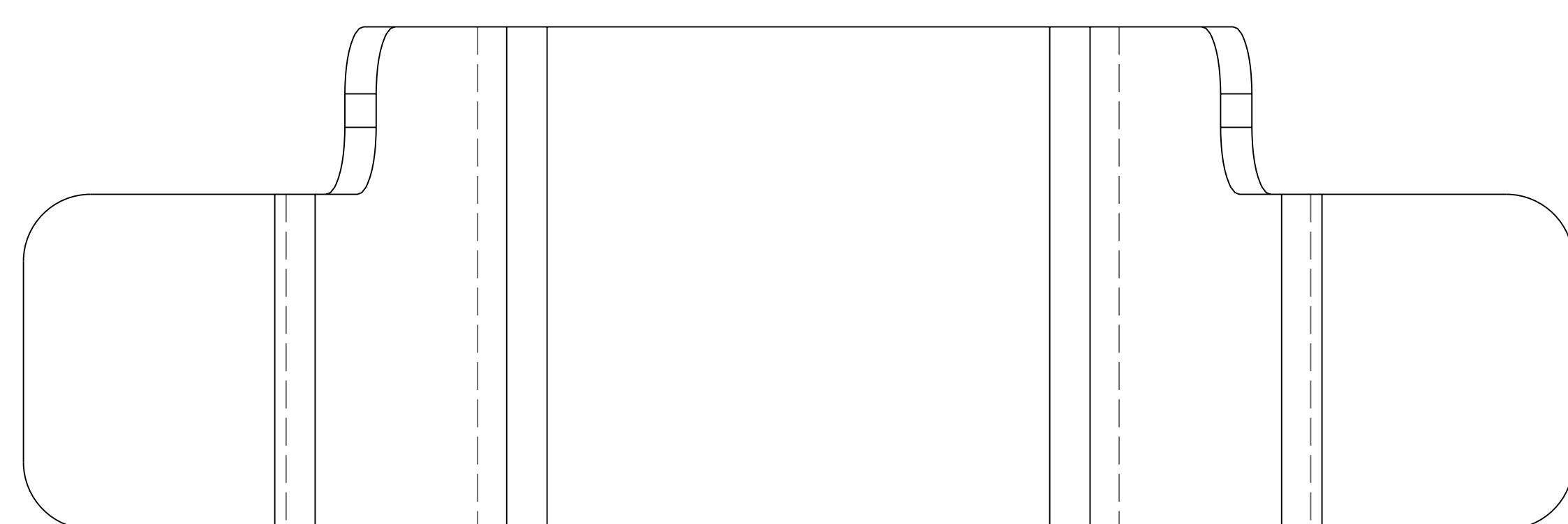
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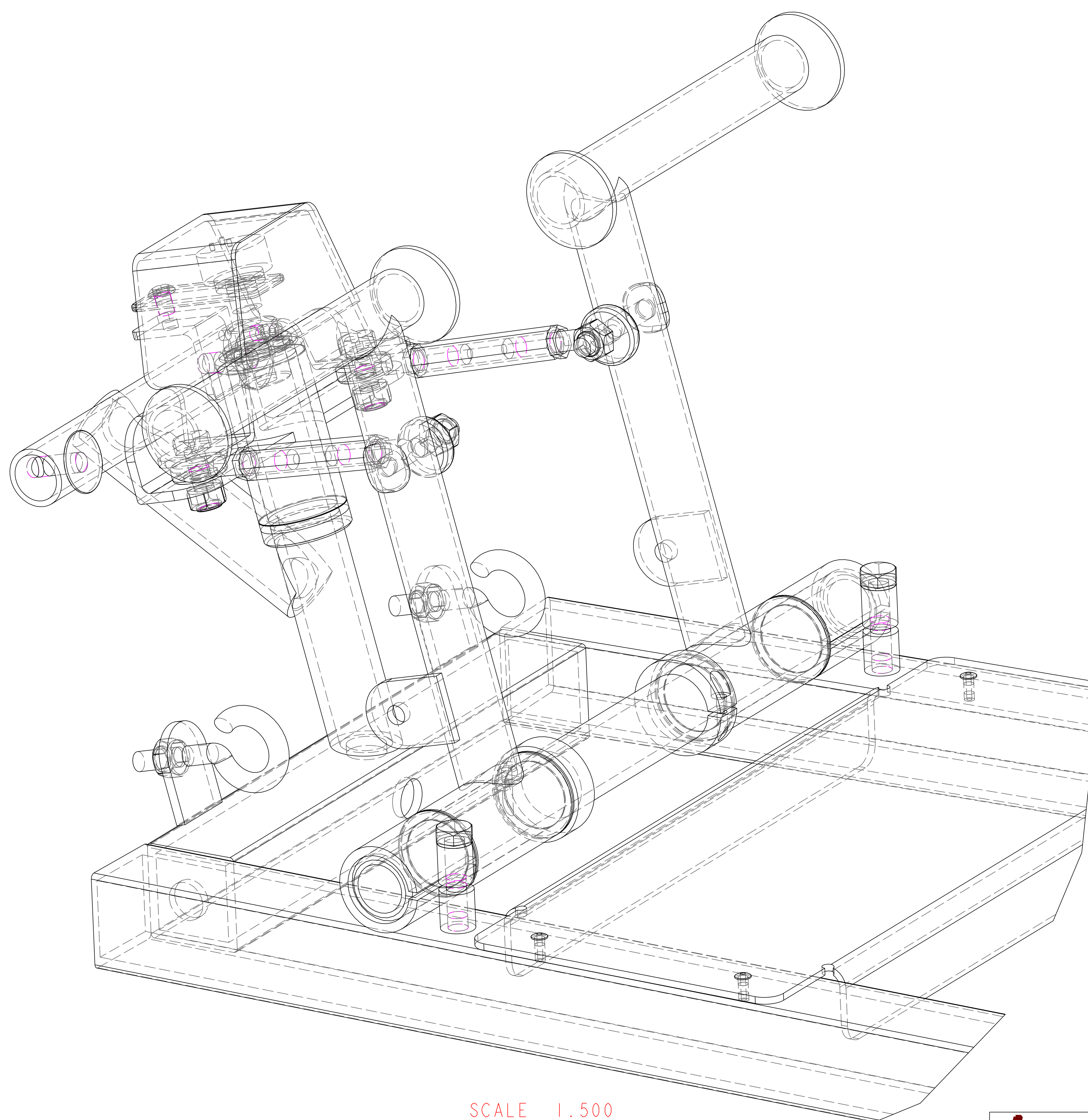
SCALE 2.500
Walking Bar Housing



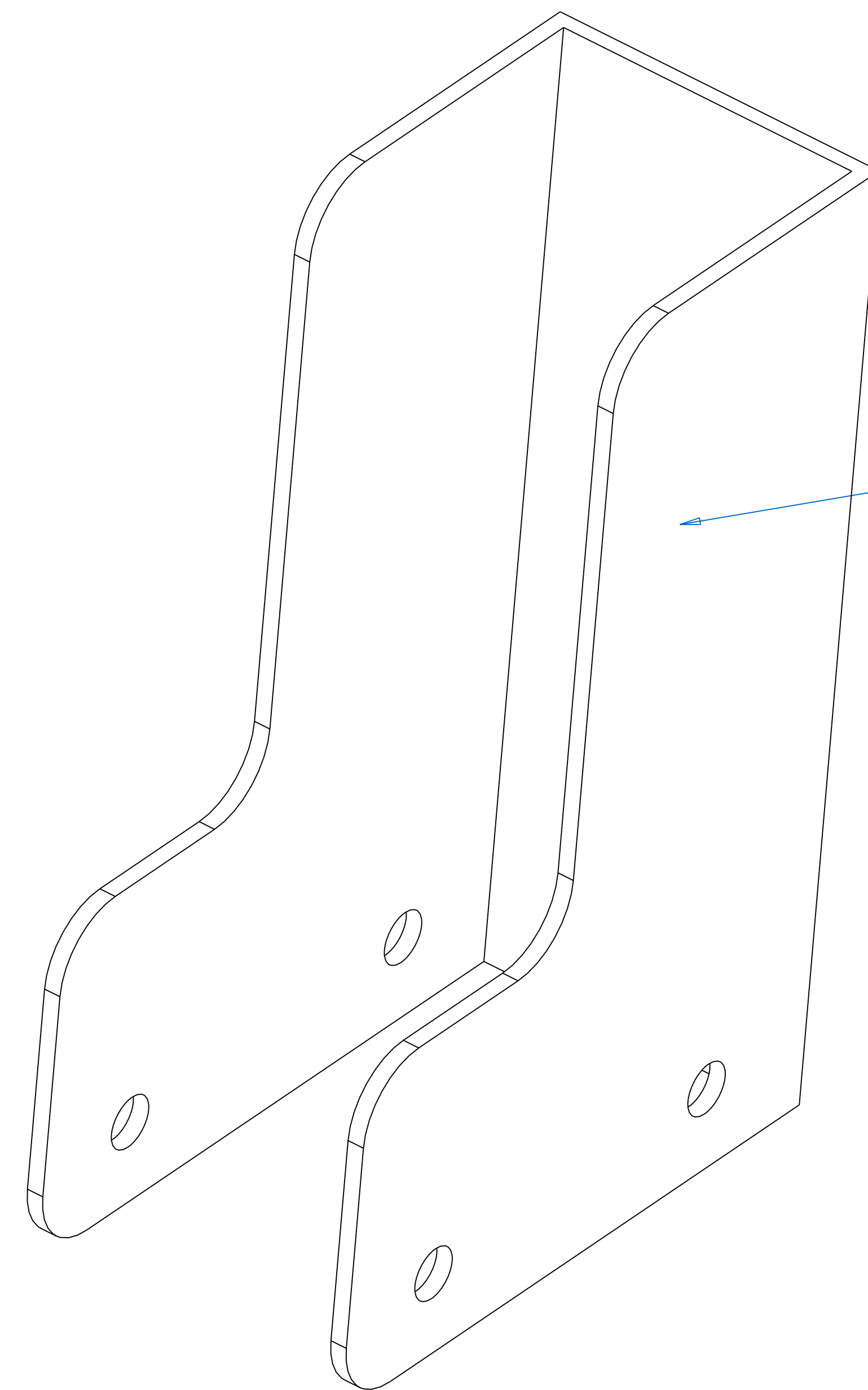
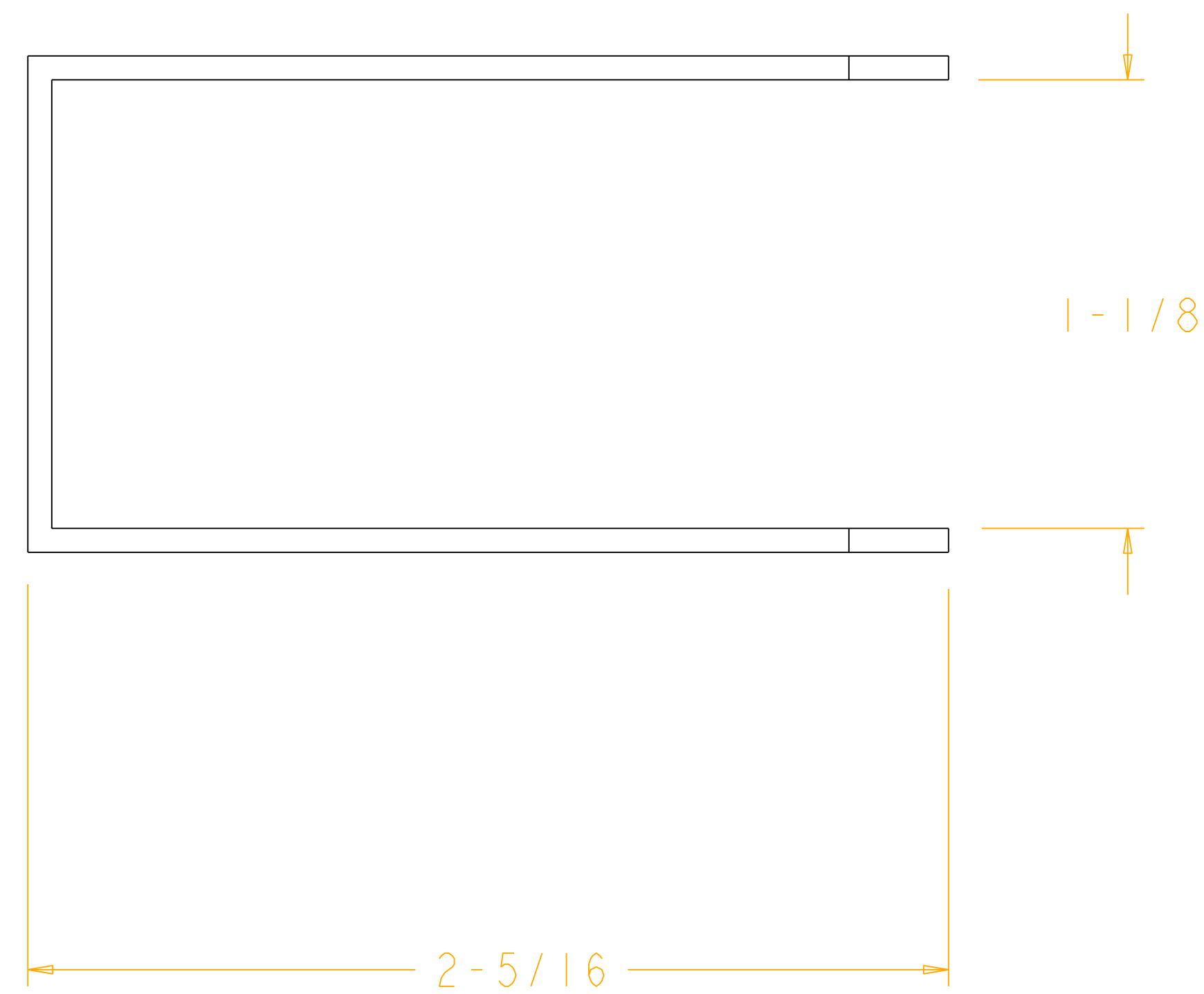
SCALE 2.000
Walking Bar Housing Plate



SCALE 2.000

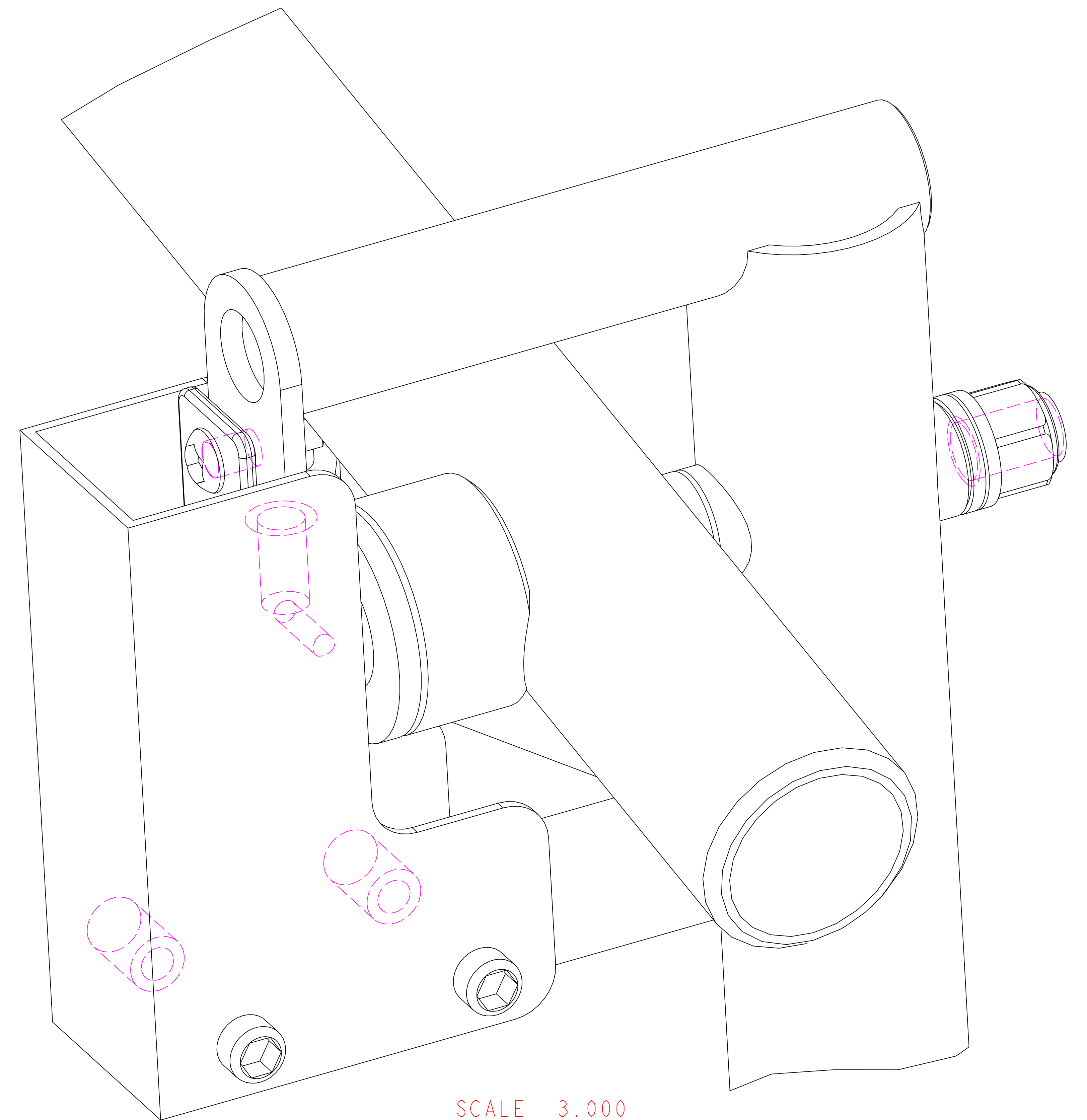


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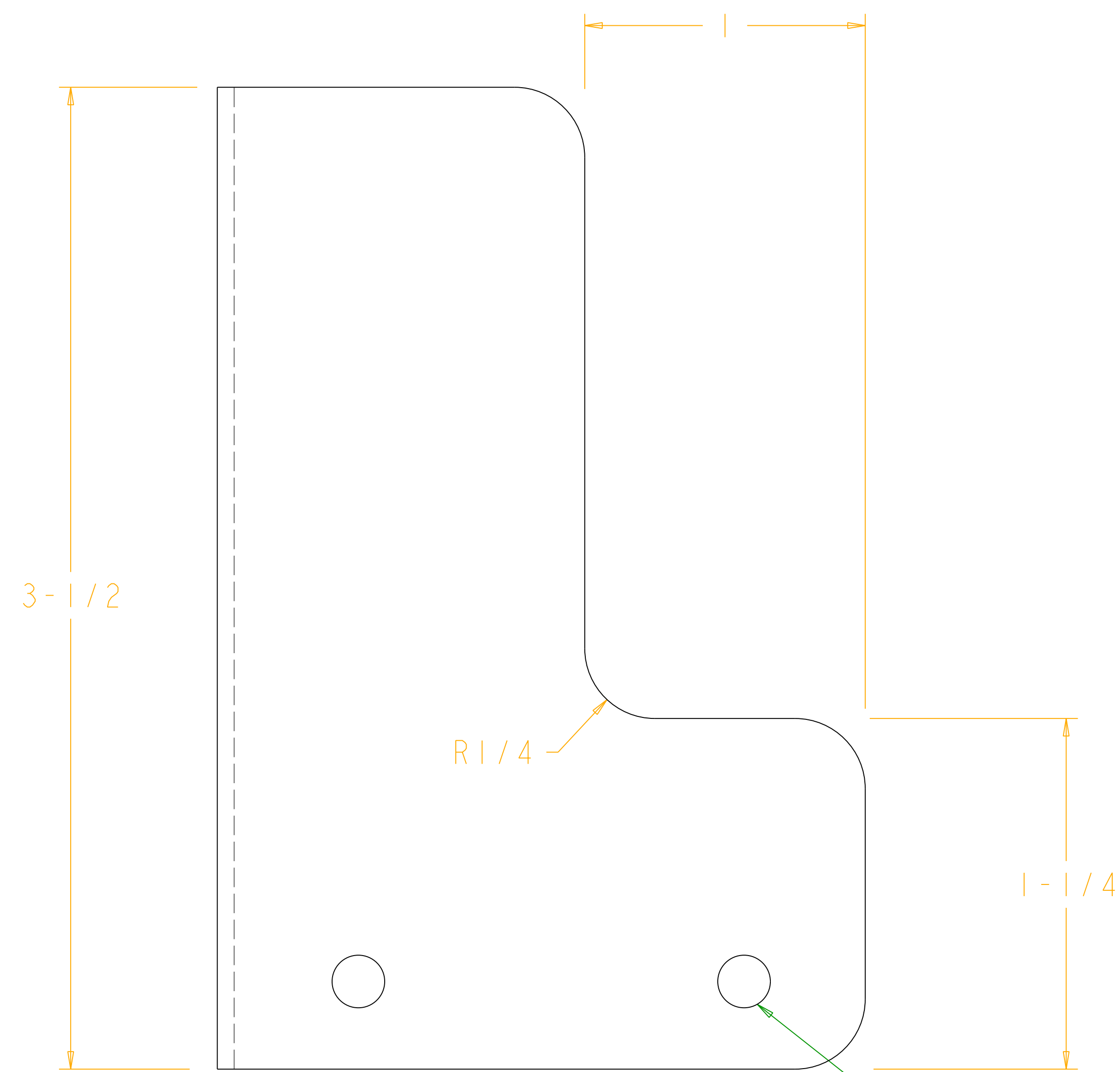


SCALE 3.000

.060" aluminum sheet

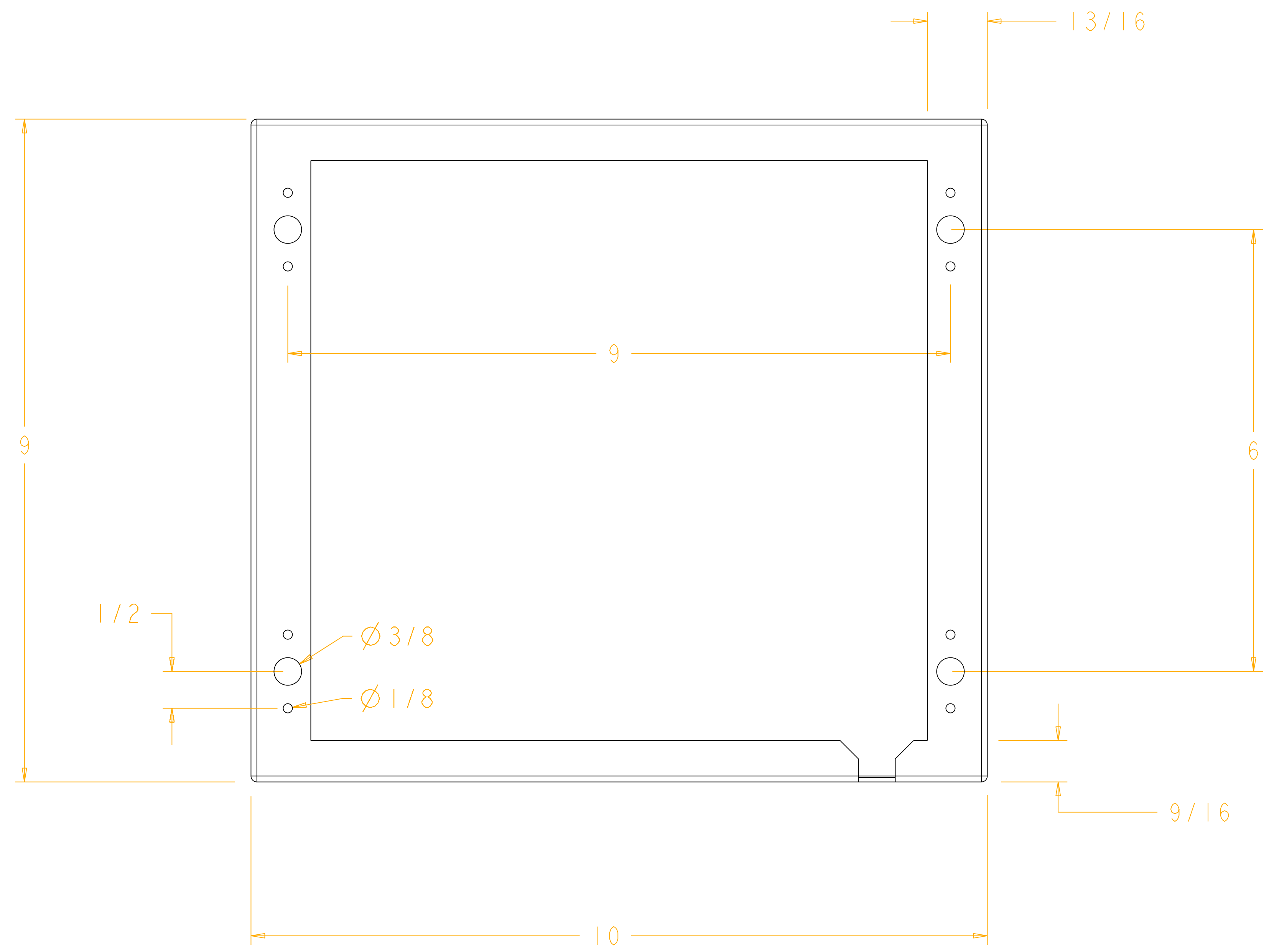


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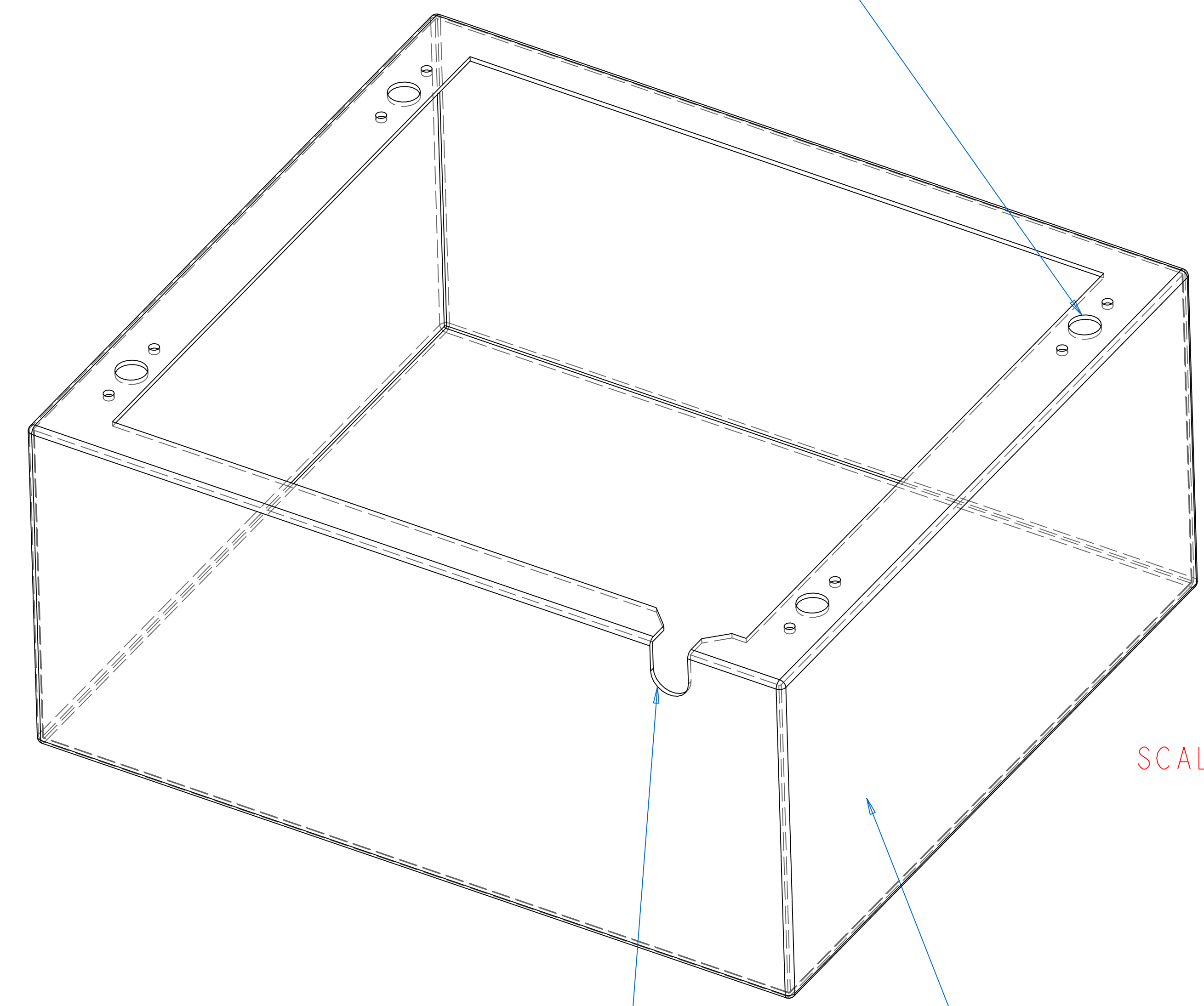


SCALE 3.000
collective potentiometer cover

drill for #10 bolt thru

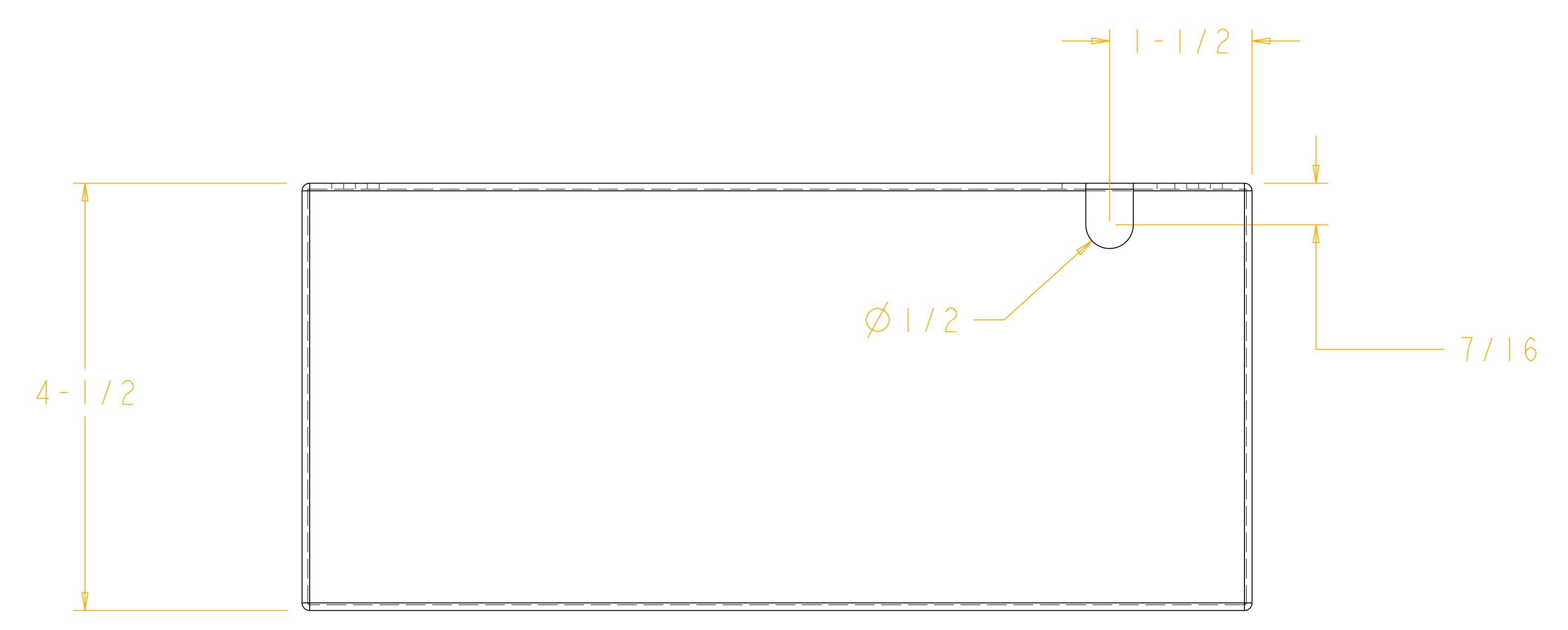


drill 4-hole pattern in seat bottom first, then transfer



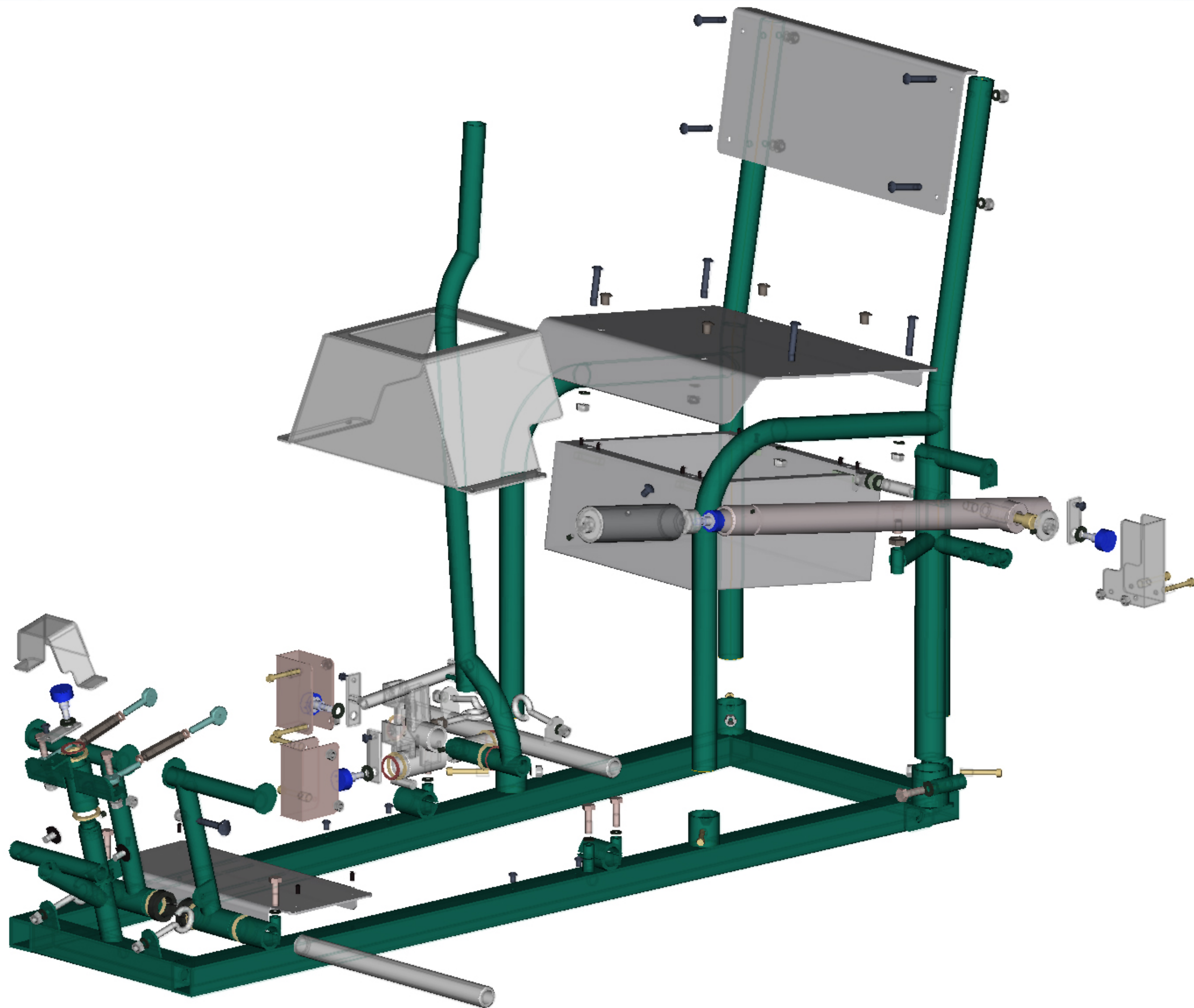
SCALE 1.000

fabricate using .060" aluminum

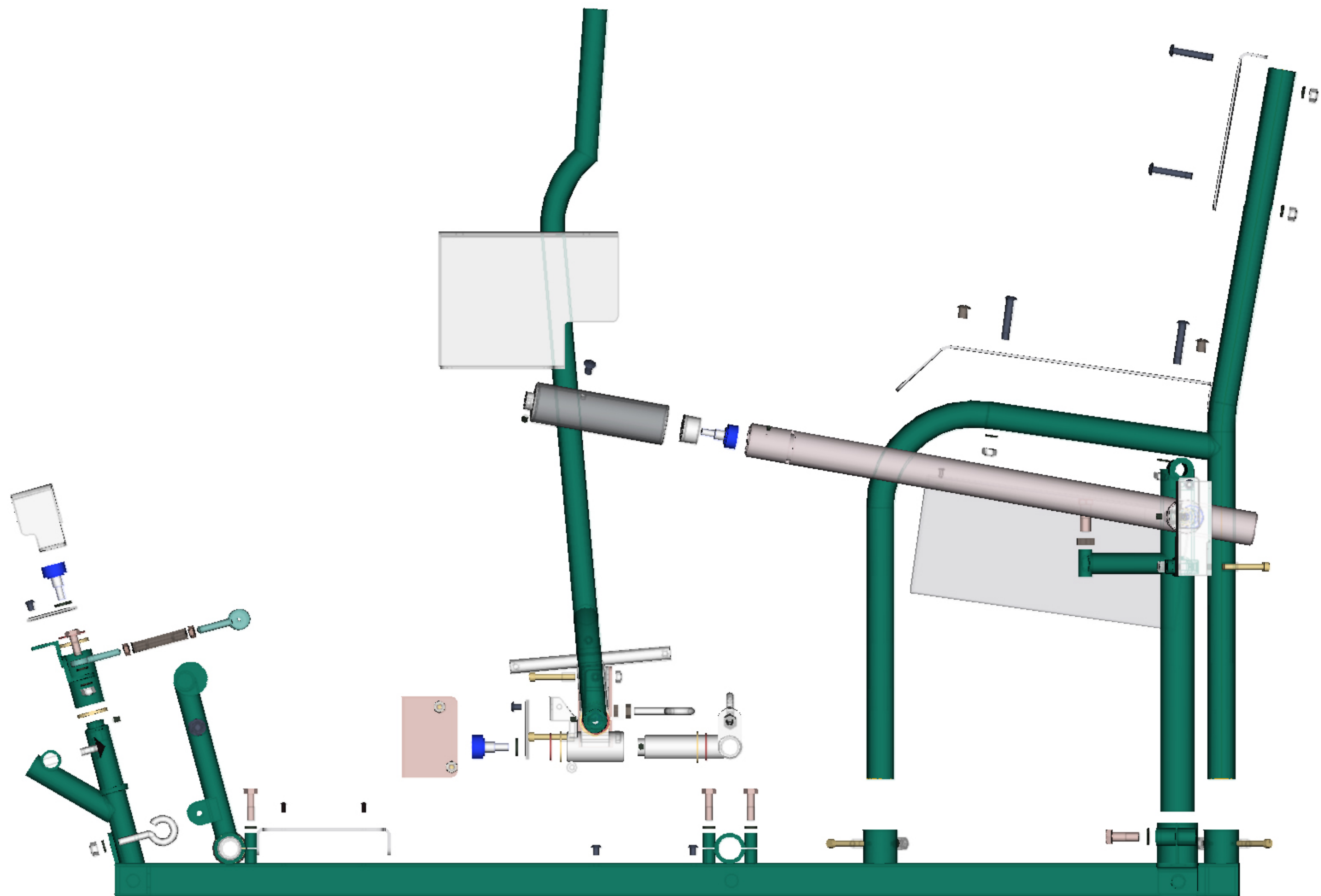


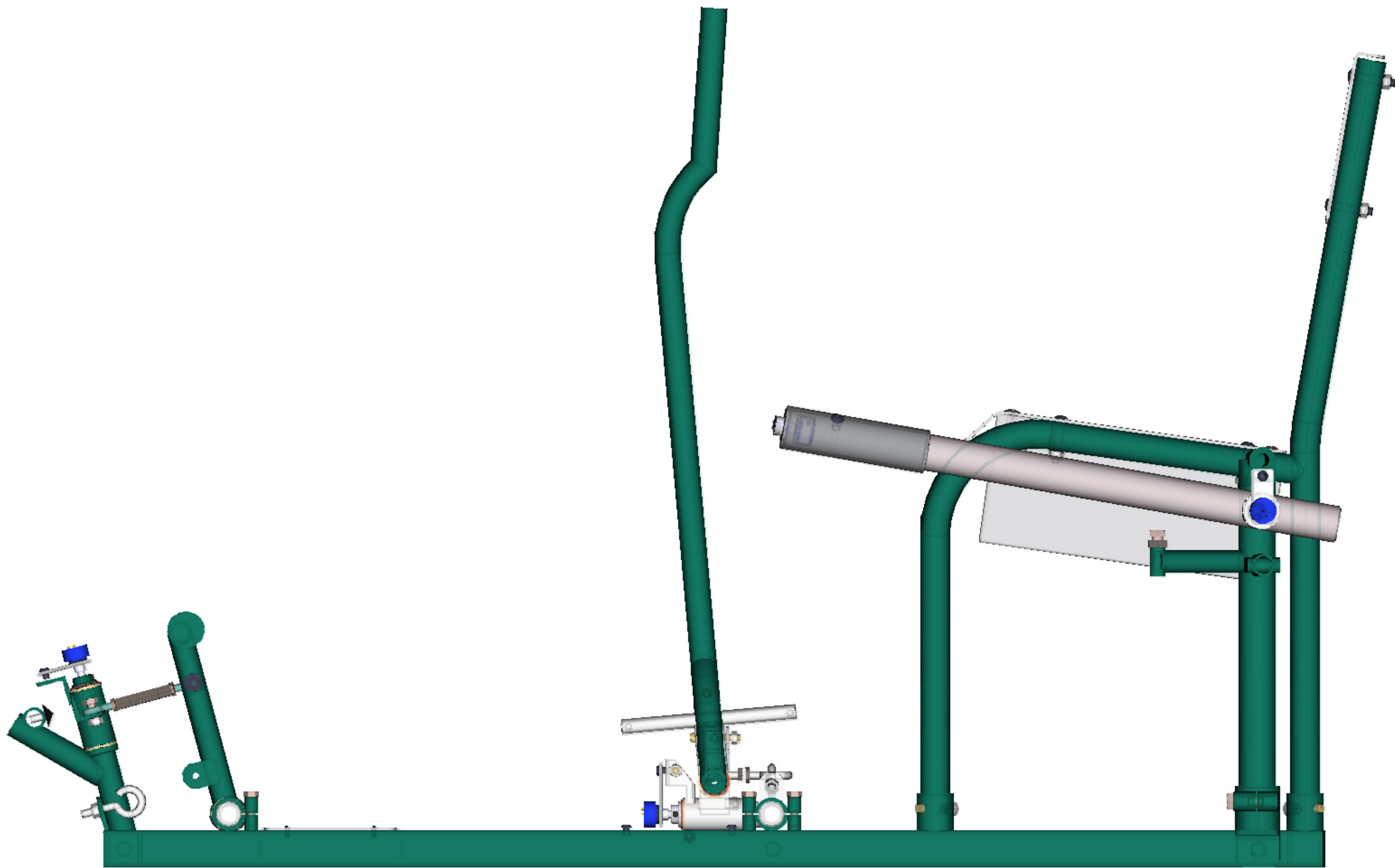
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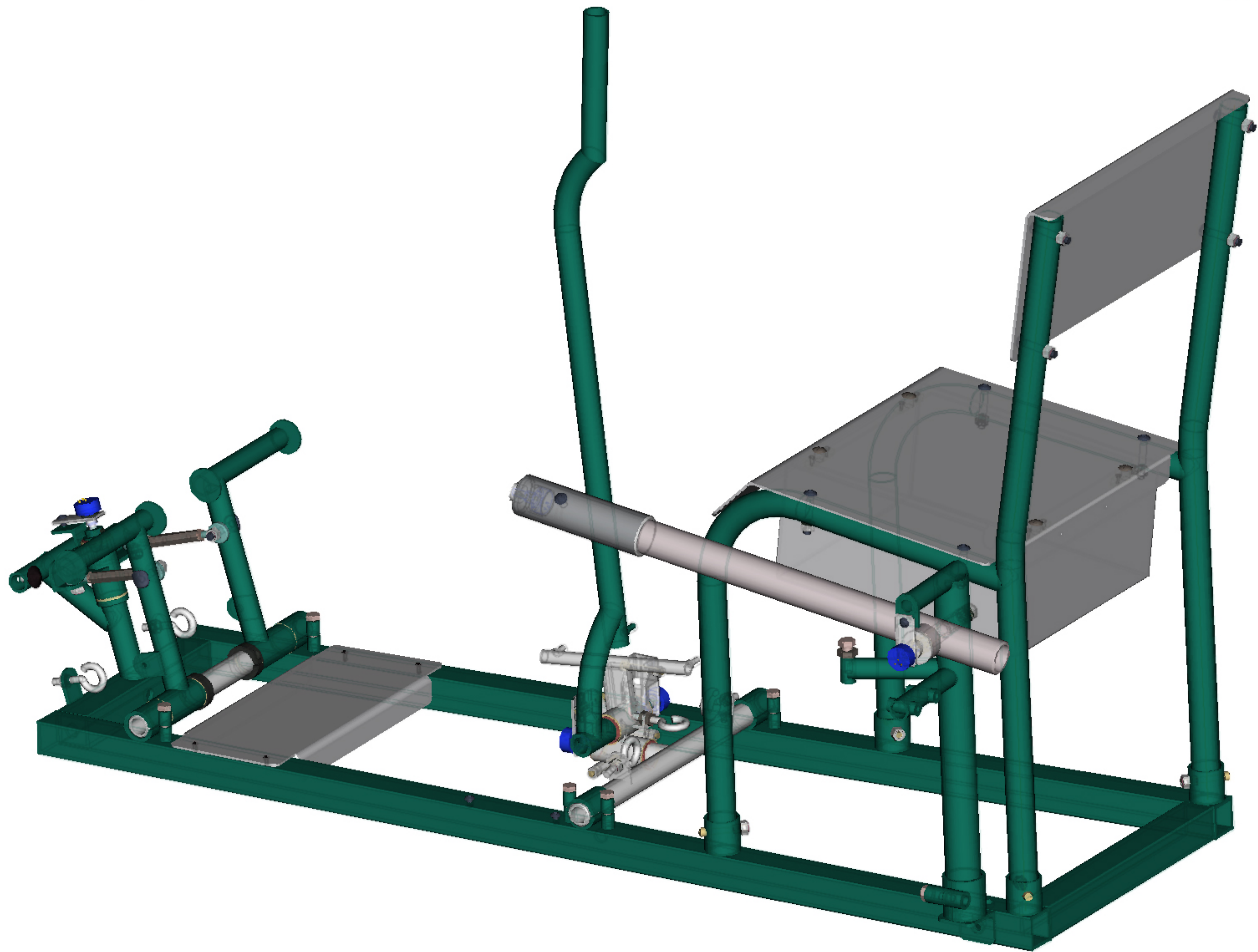


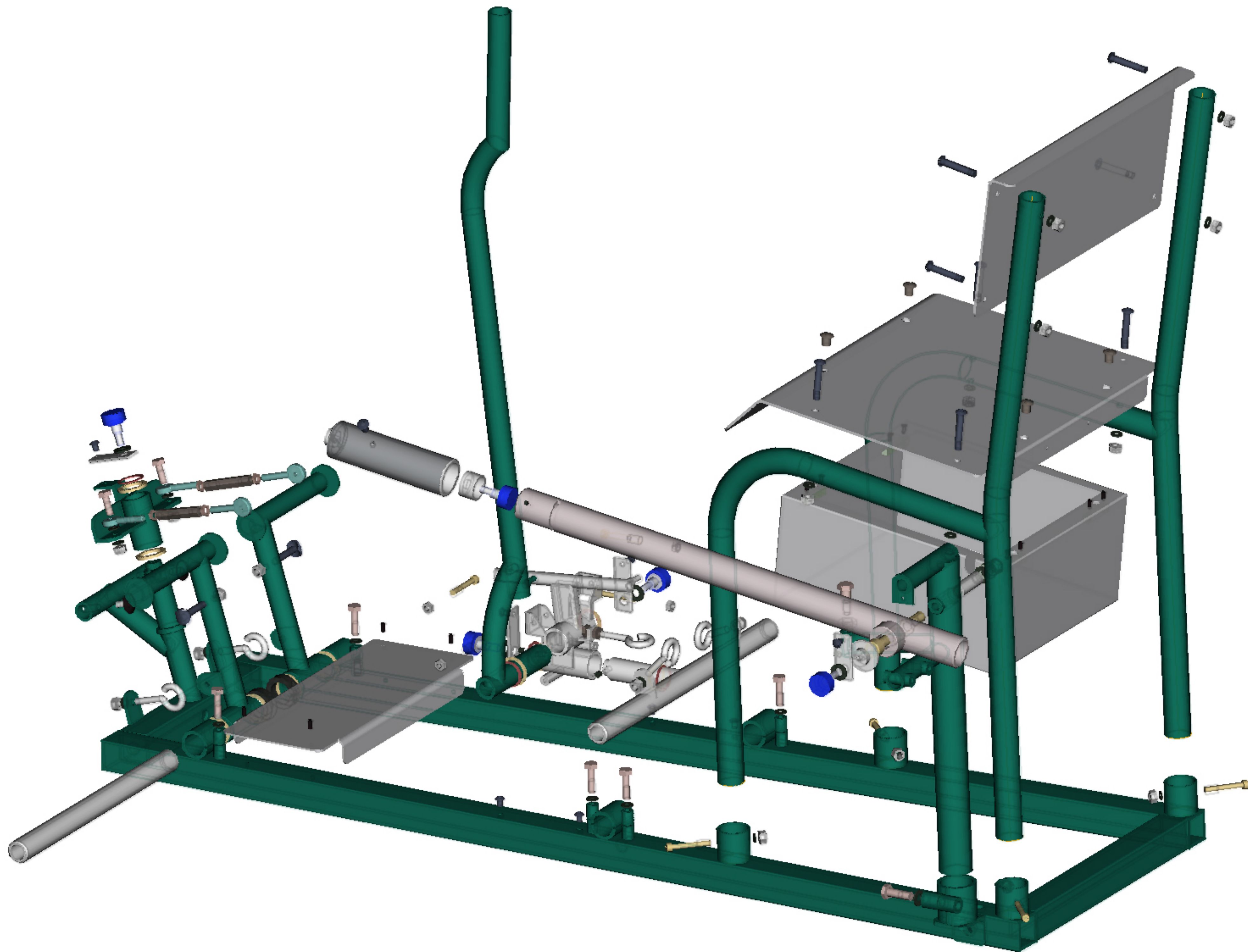


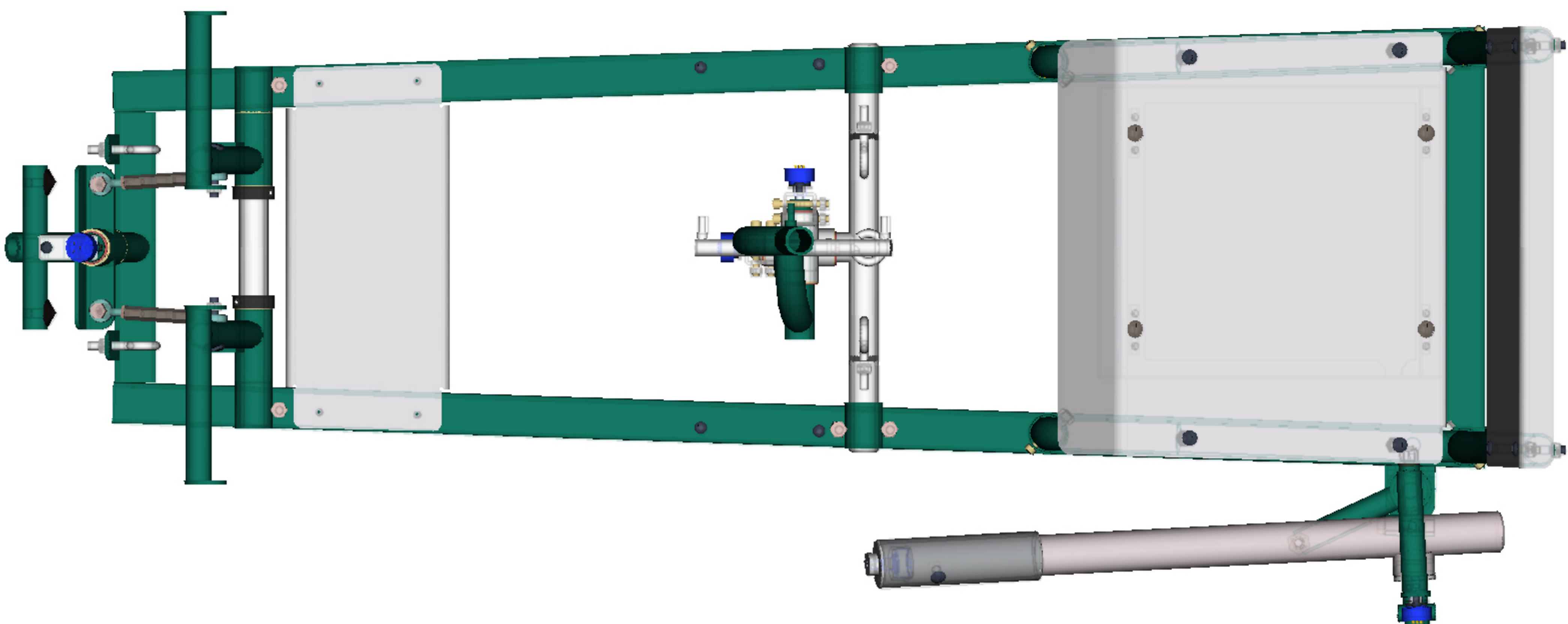


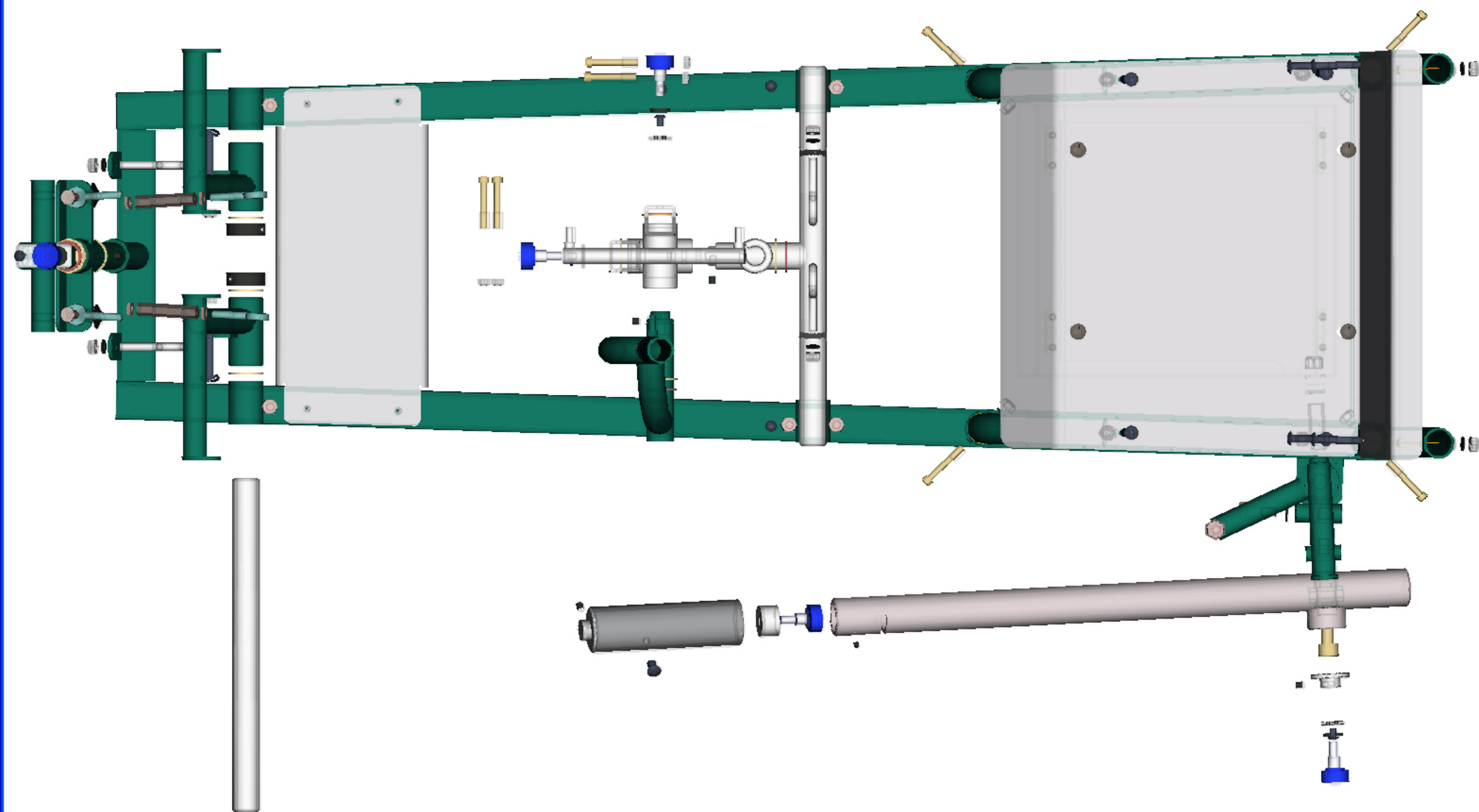


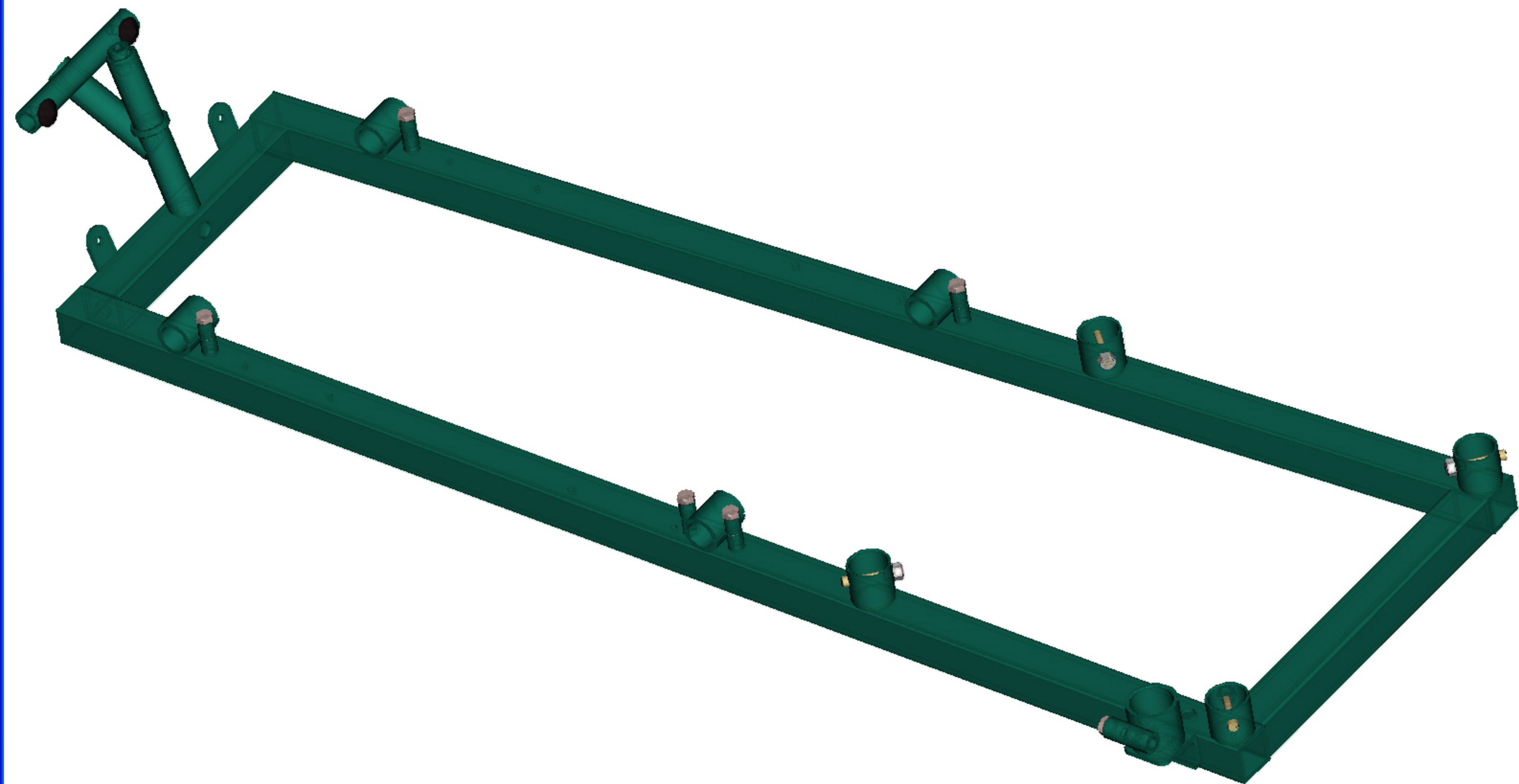


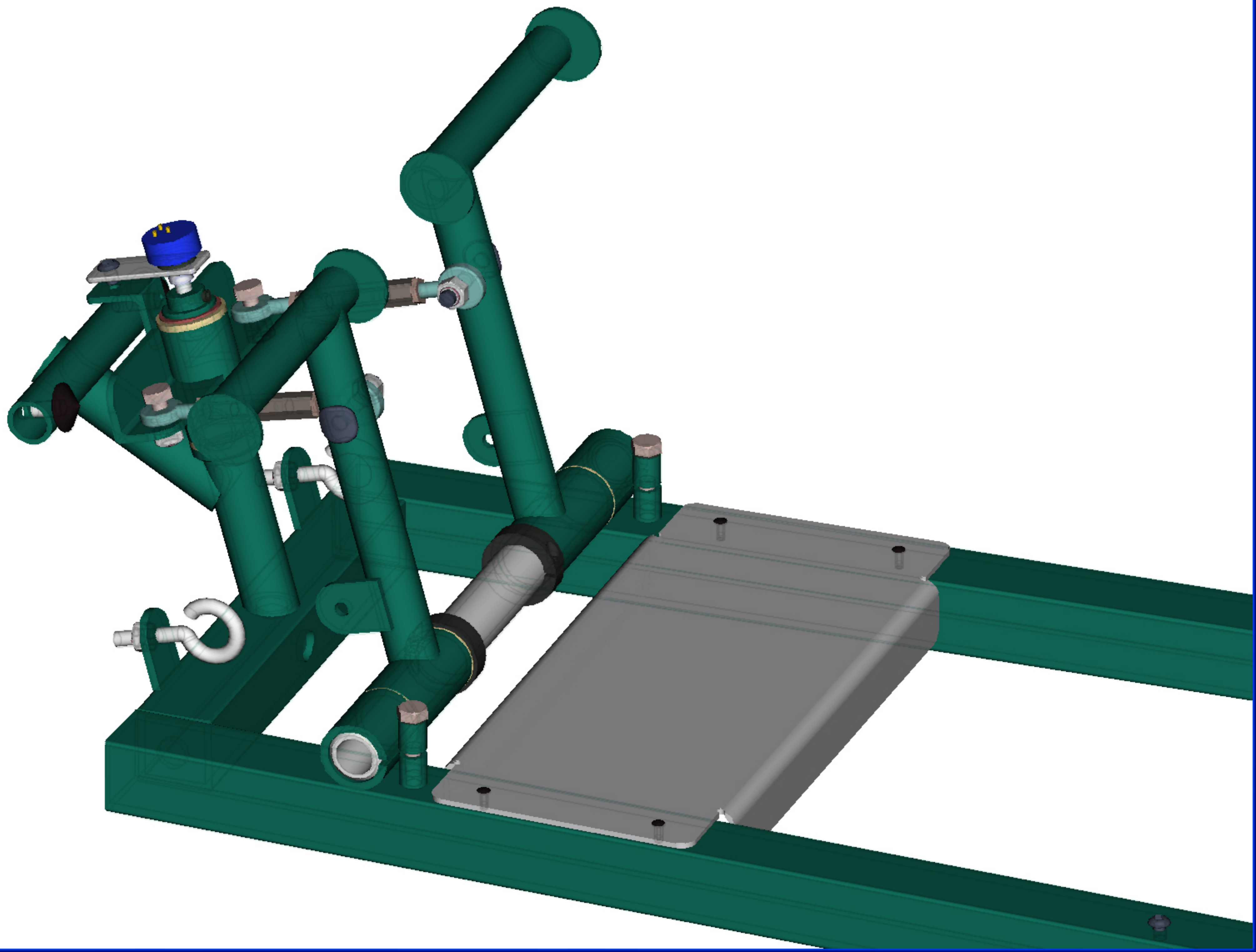


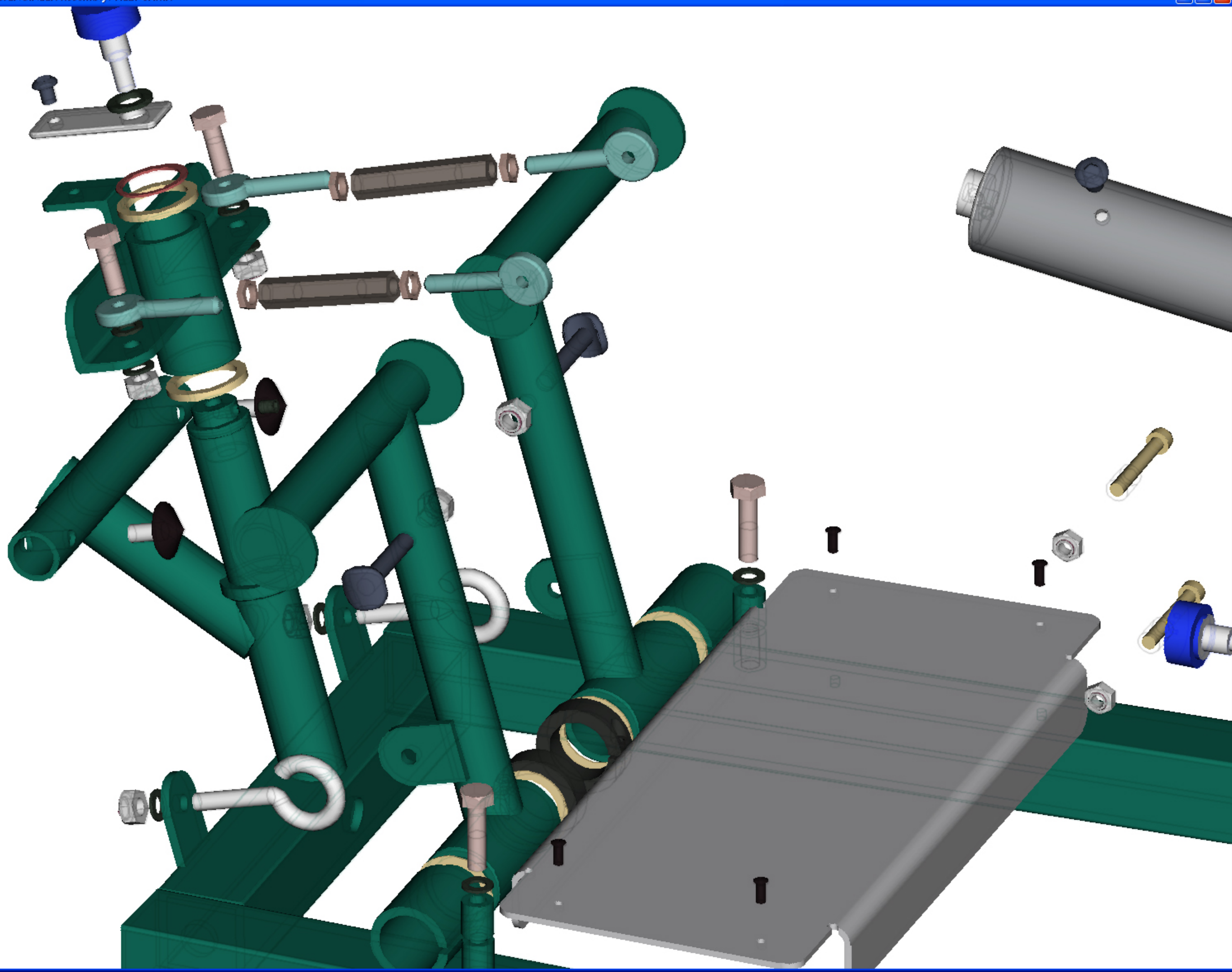


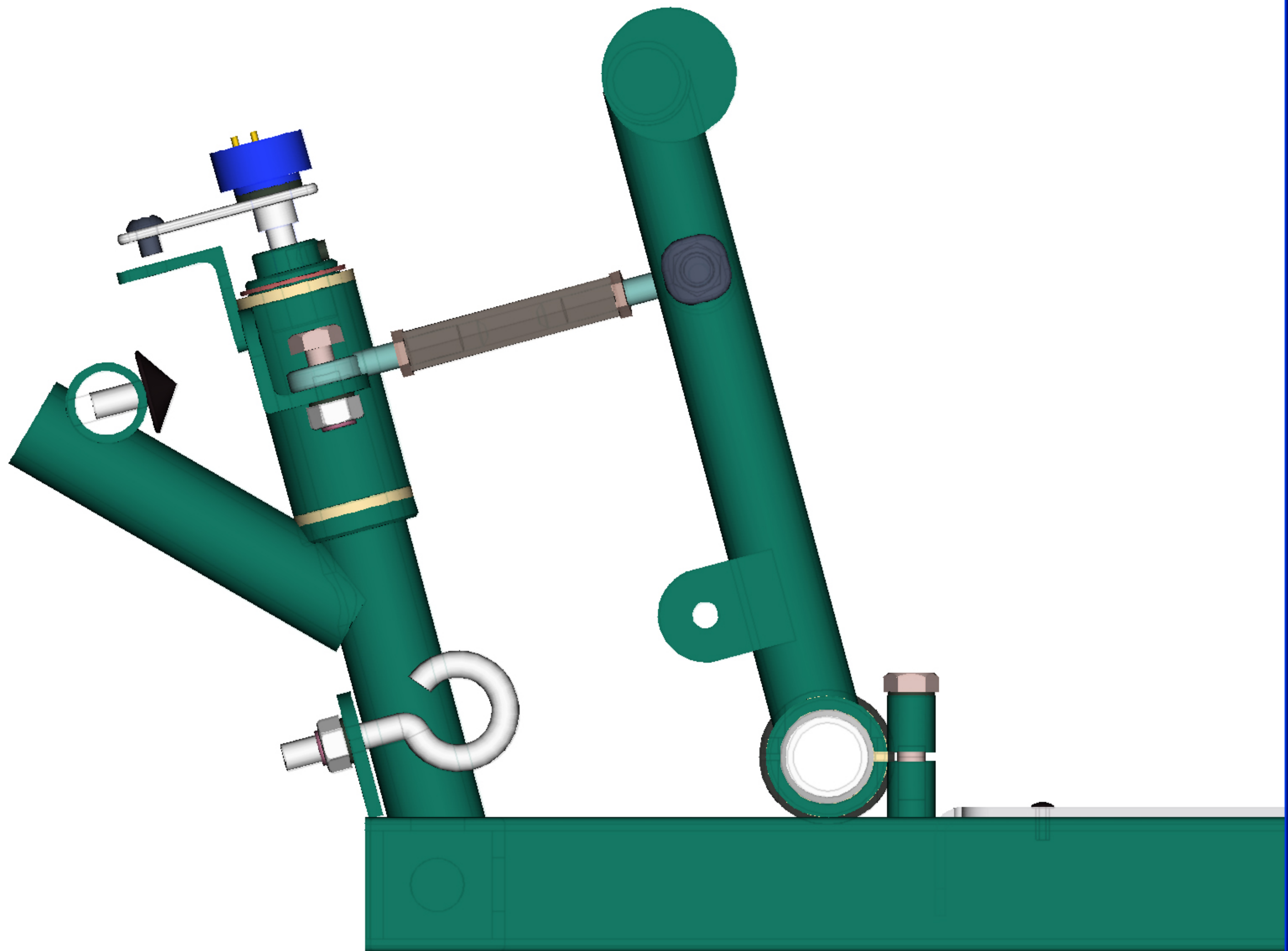


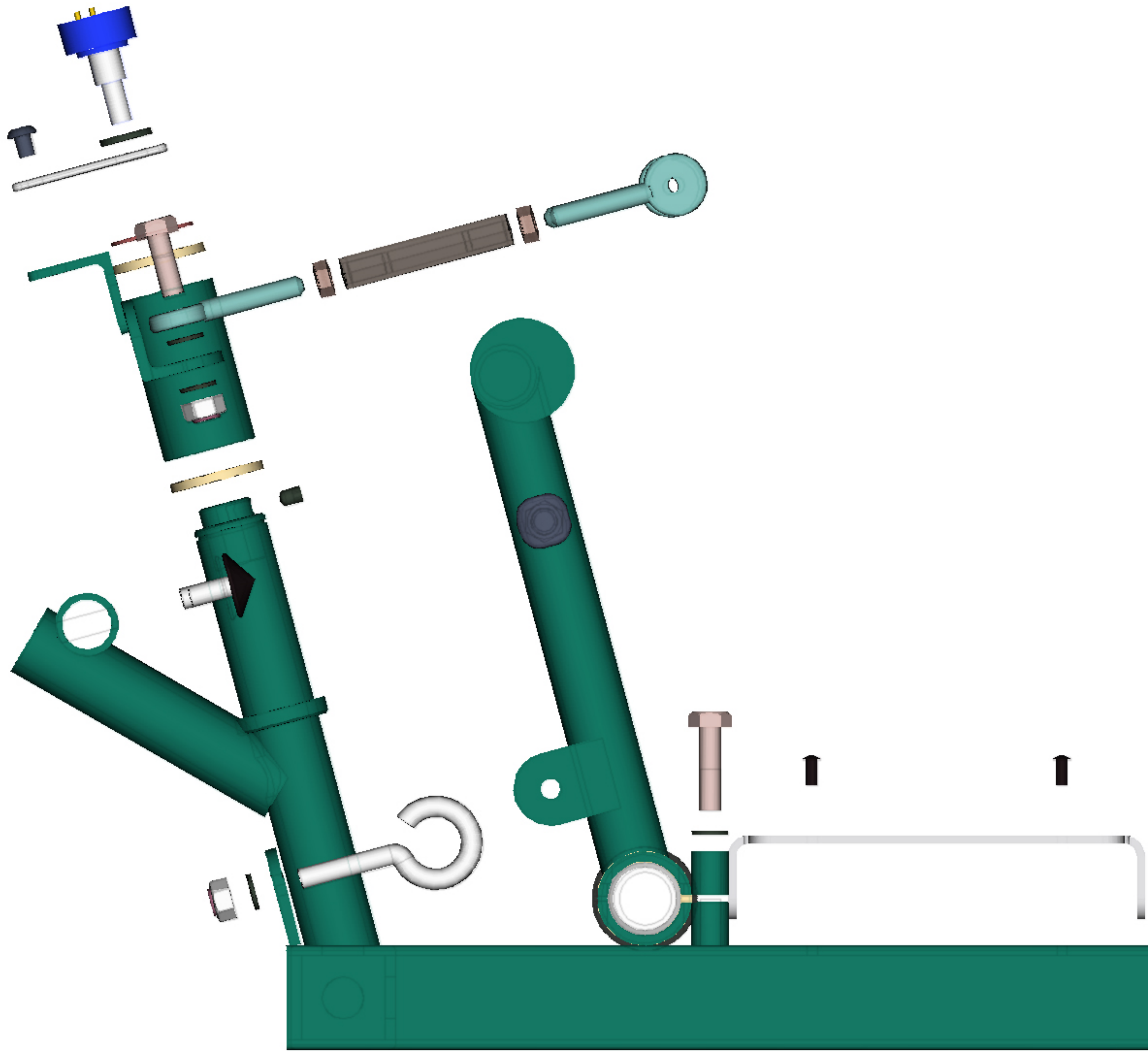


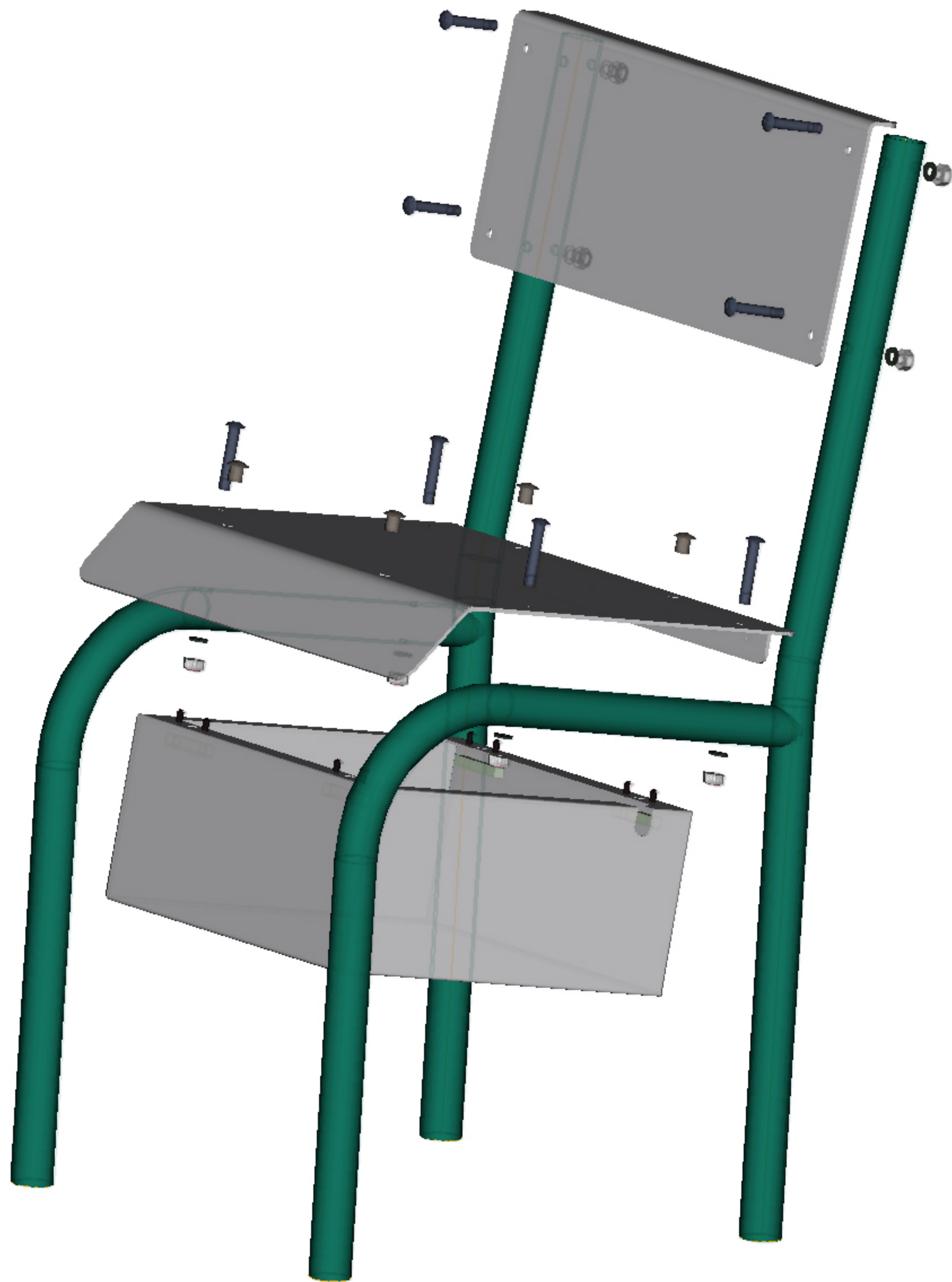


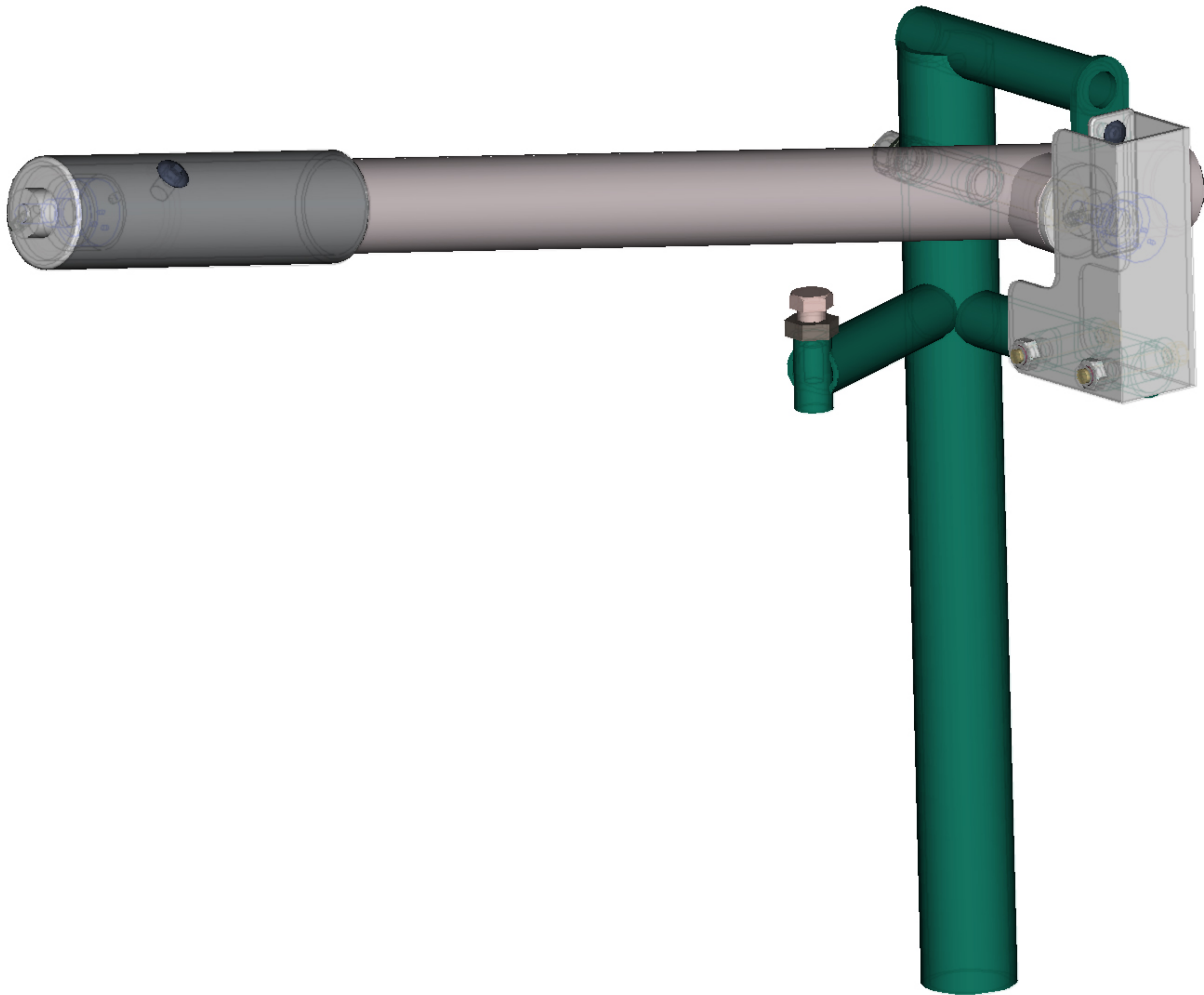


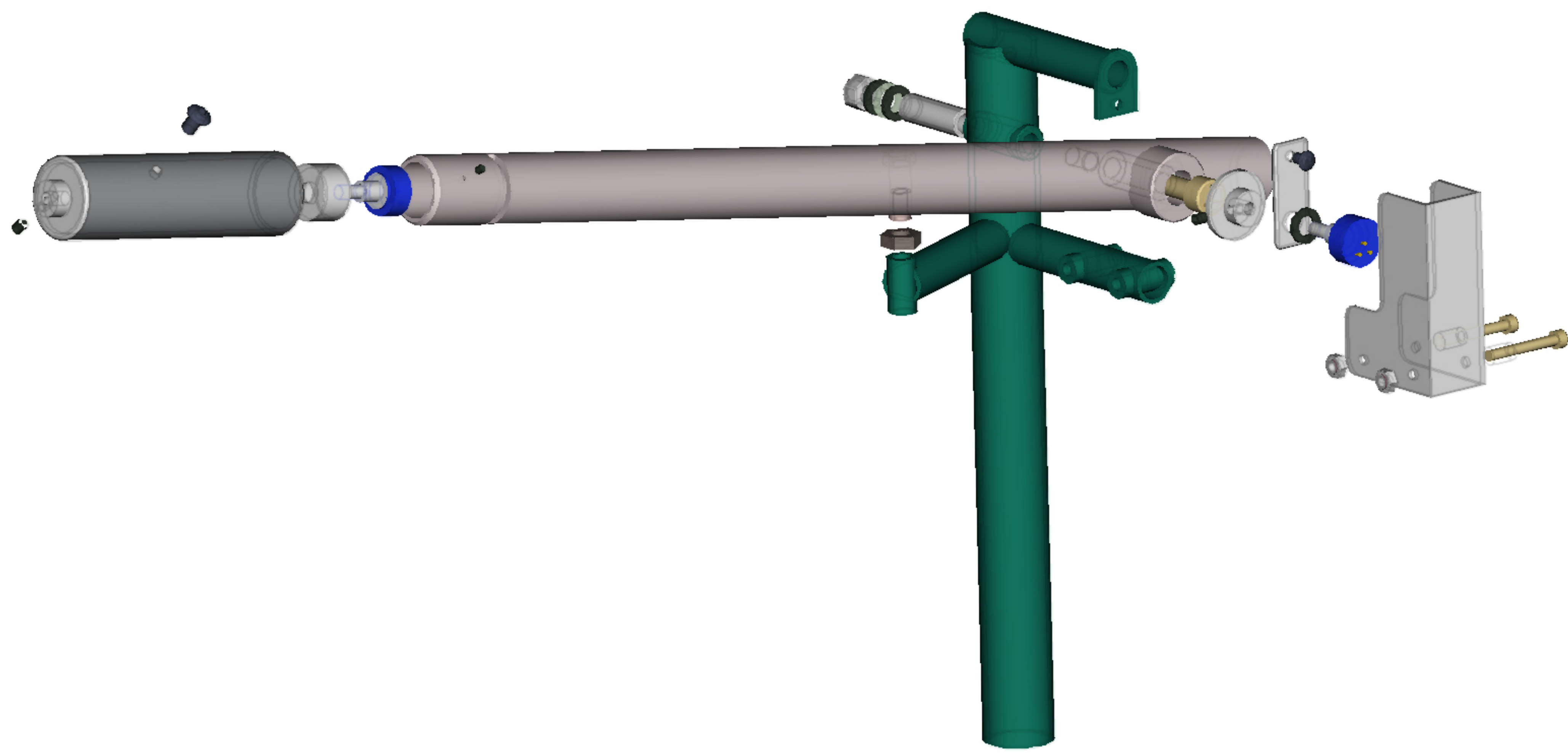


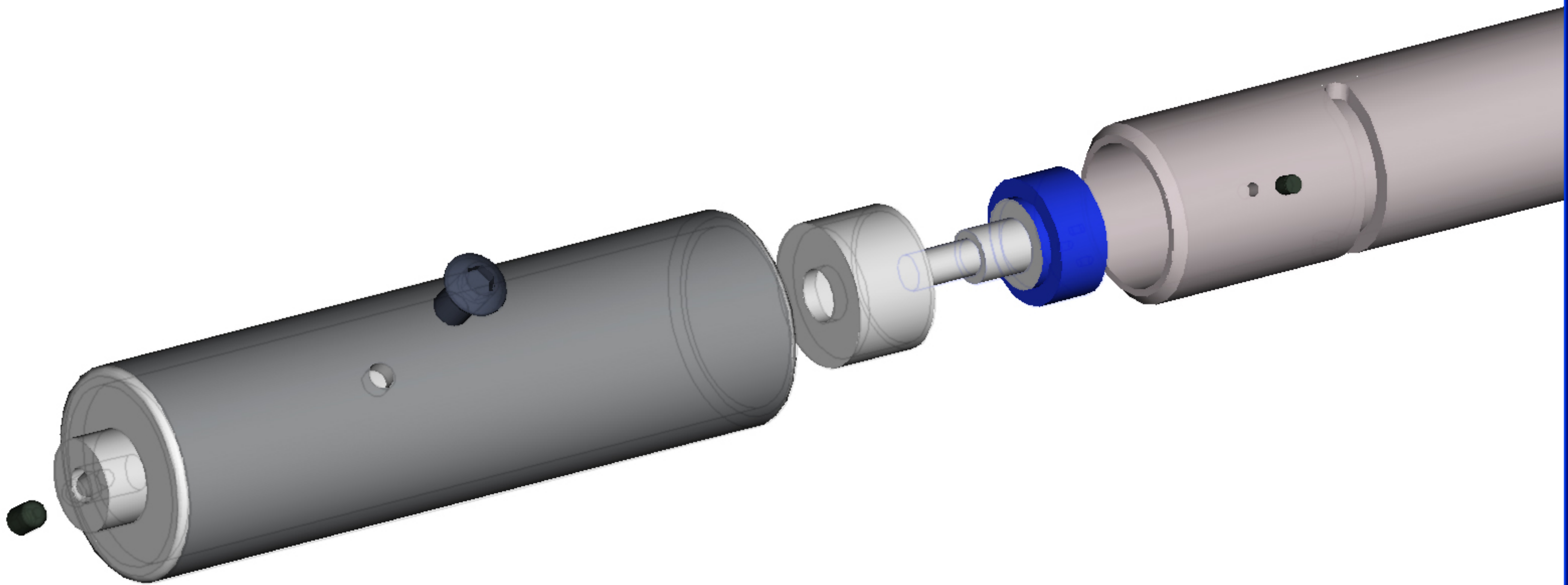


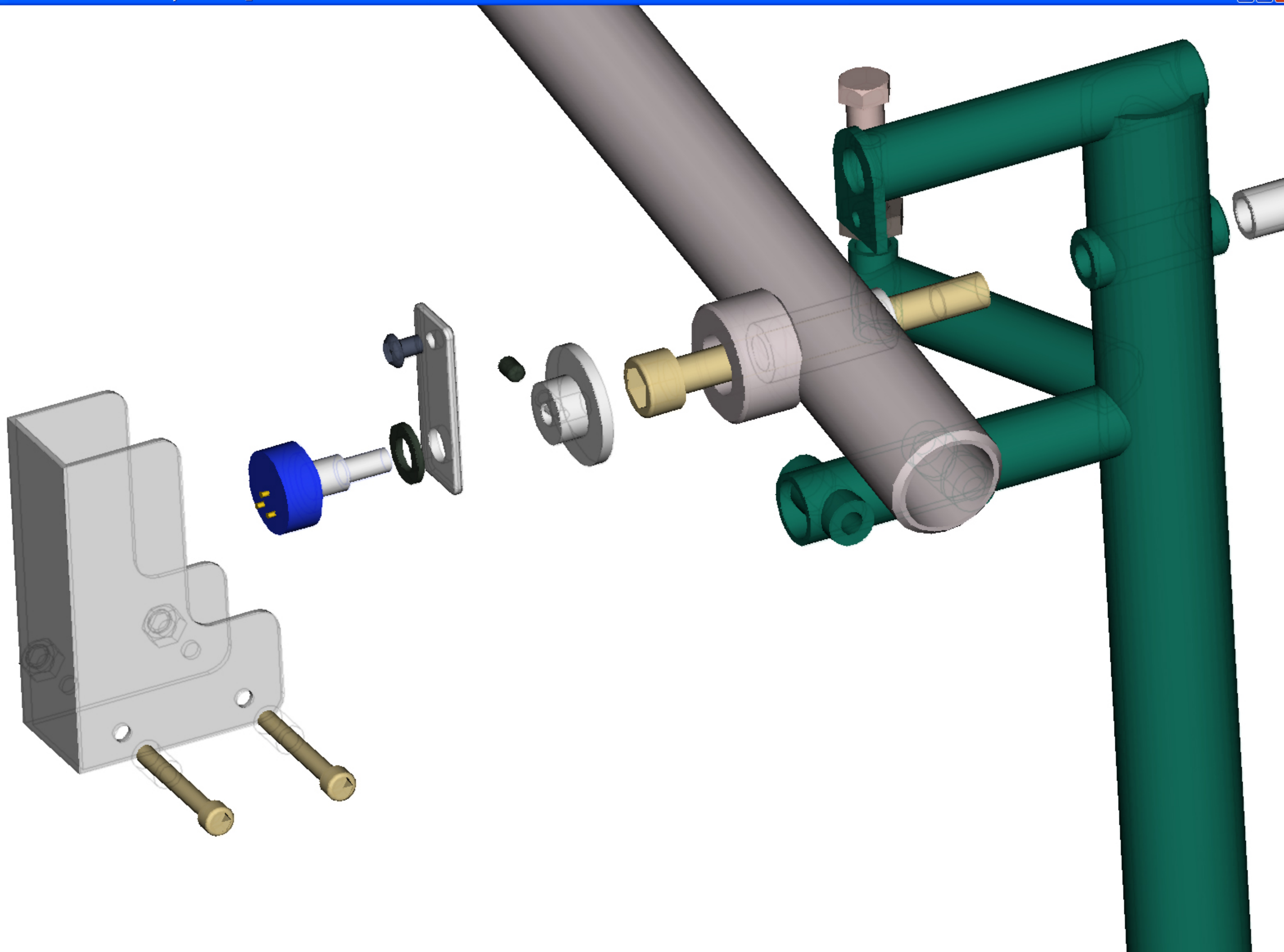


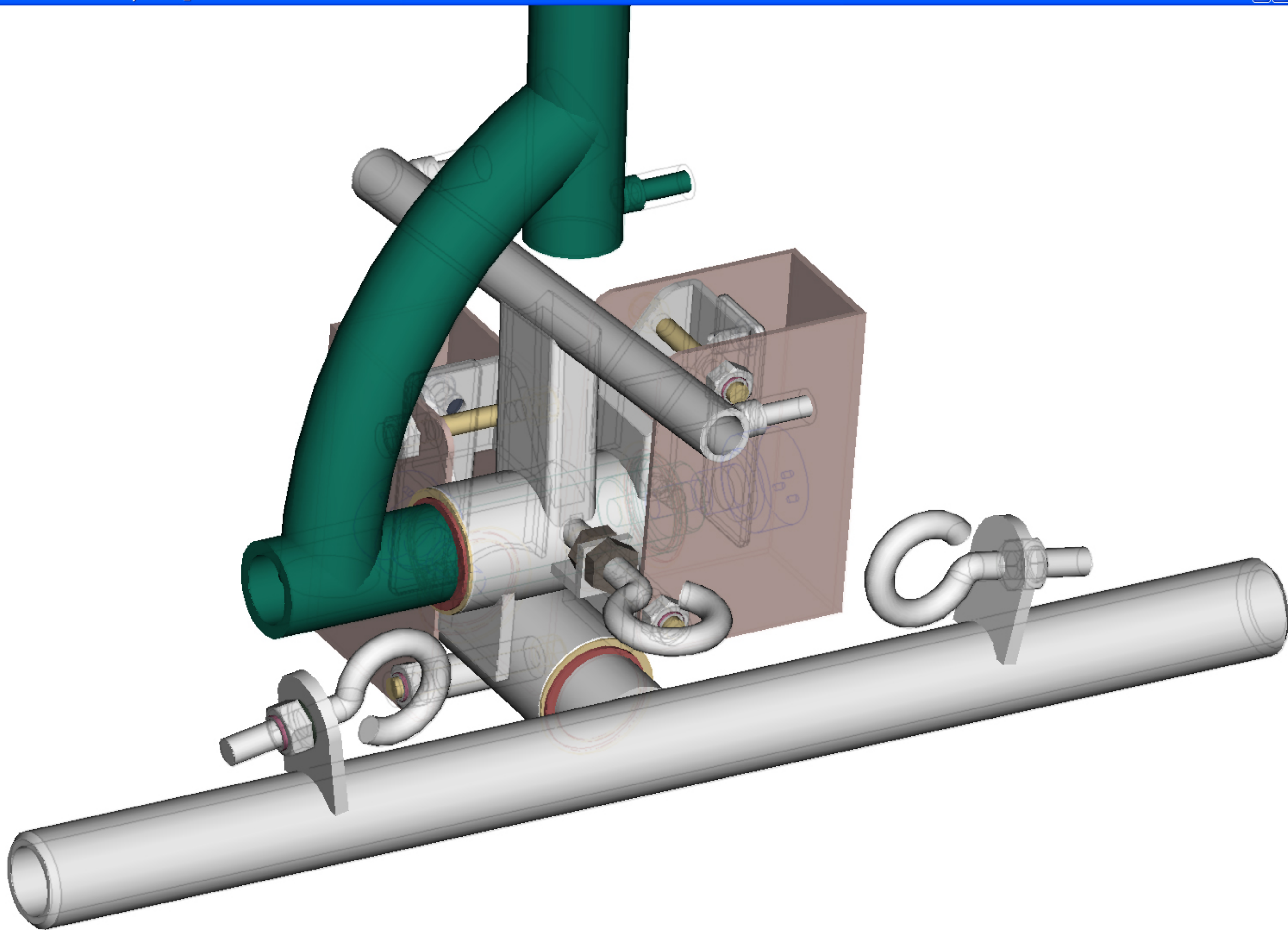


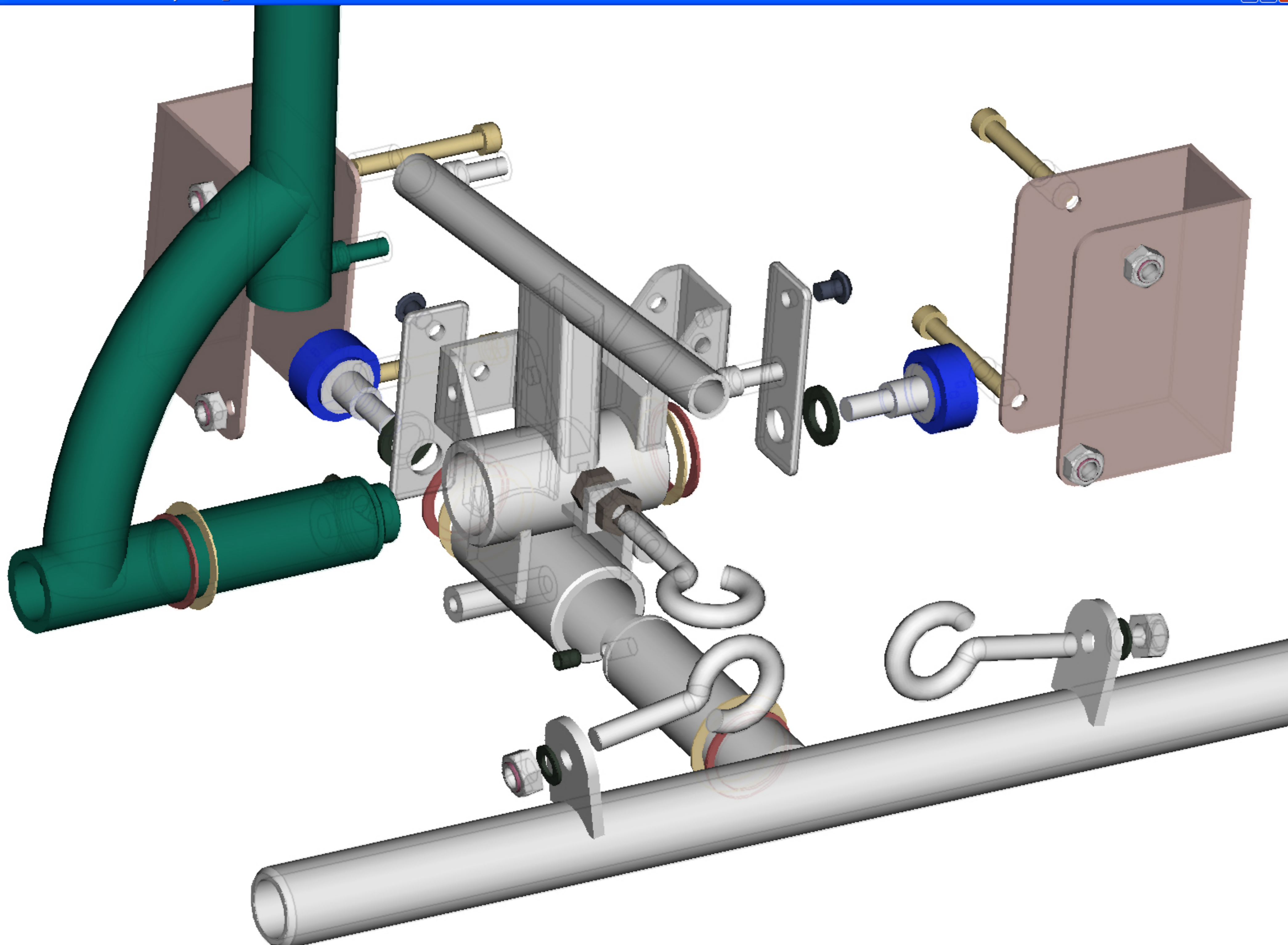


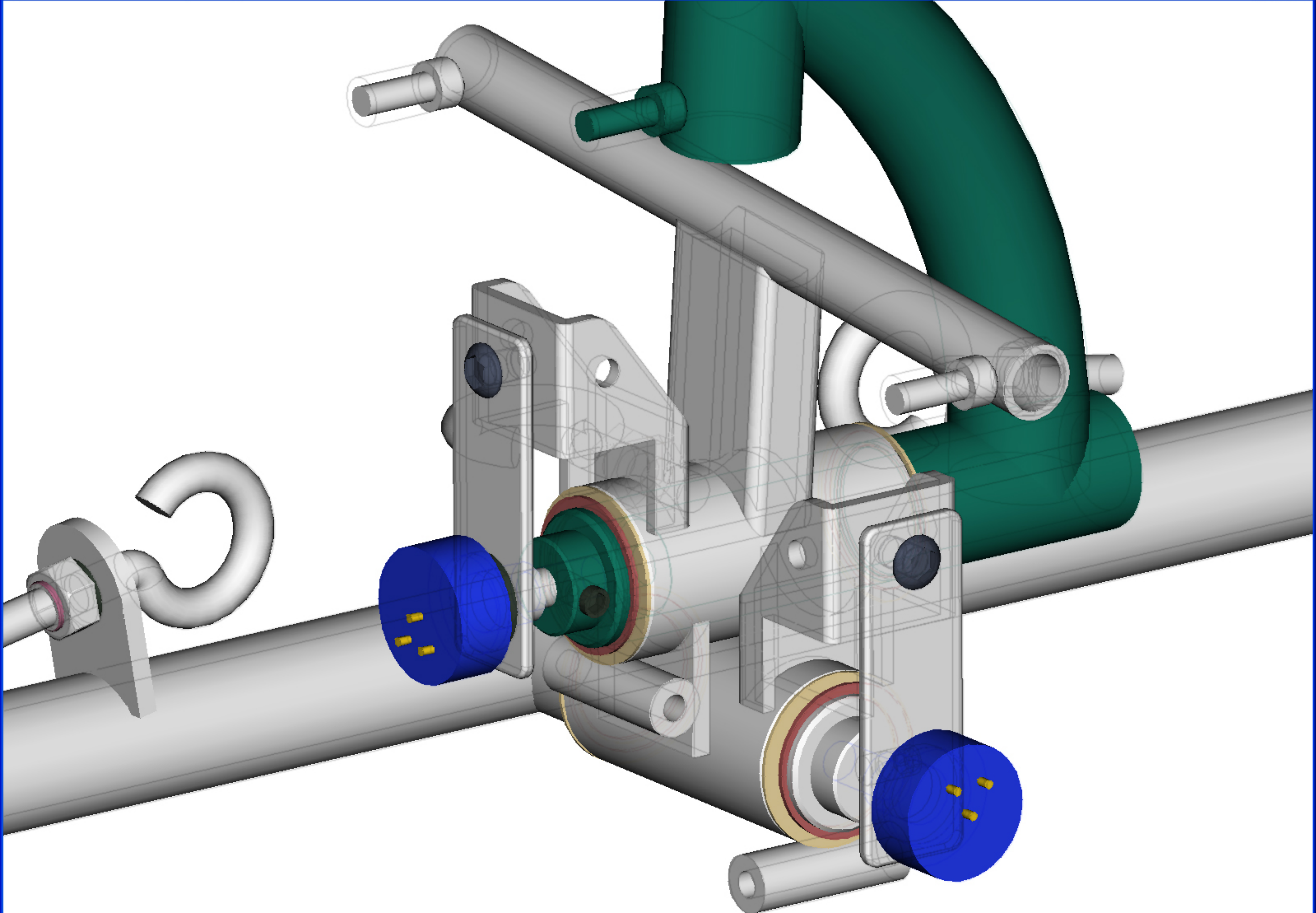


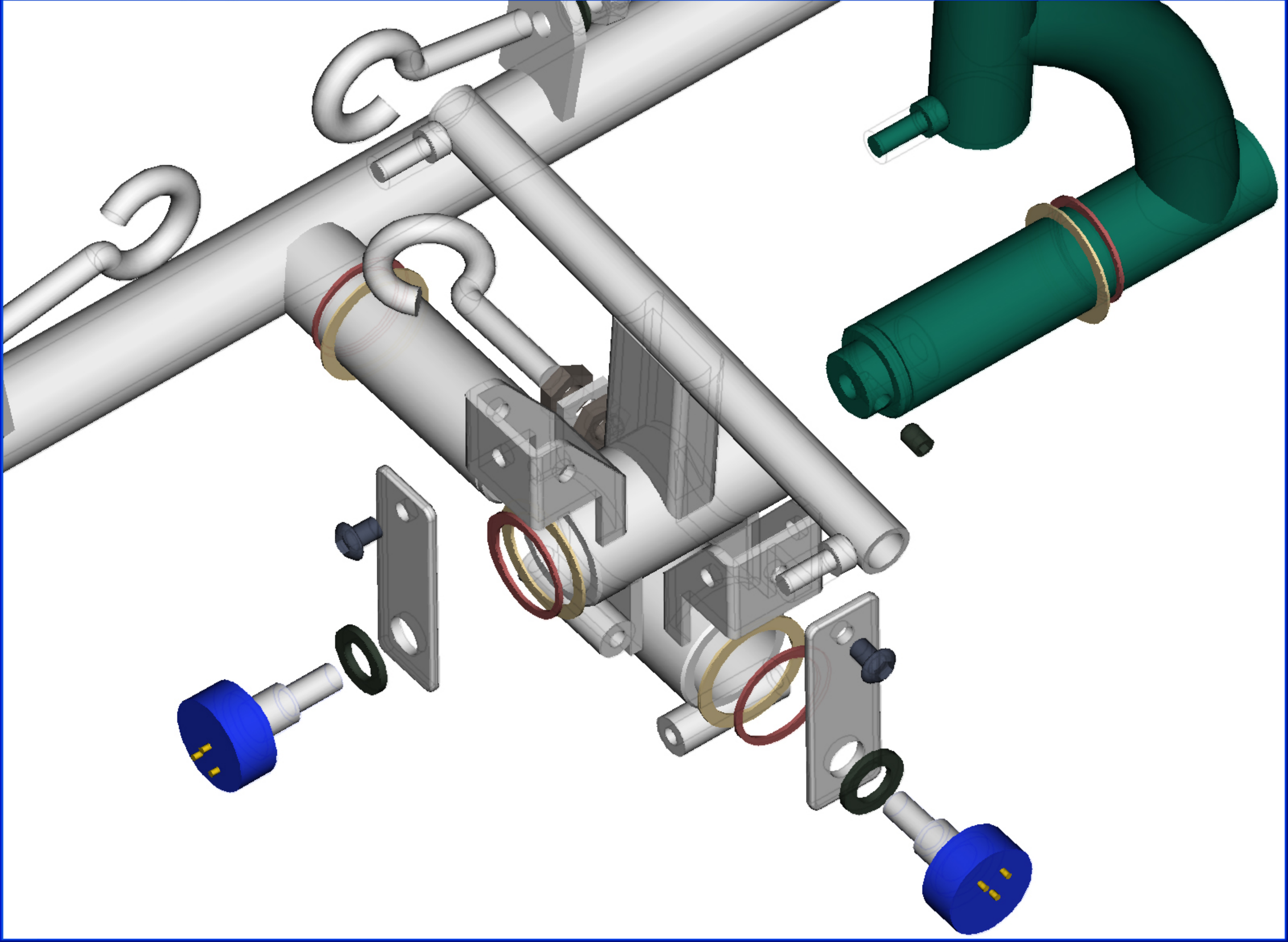












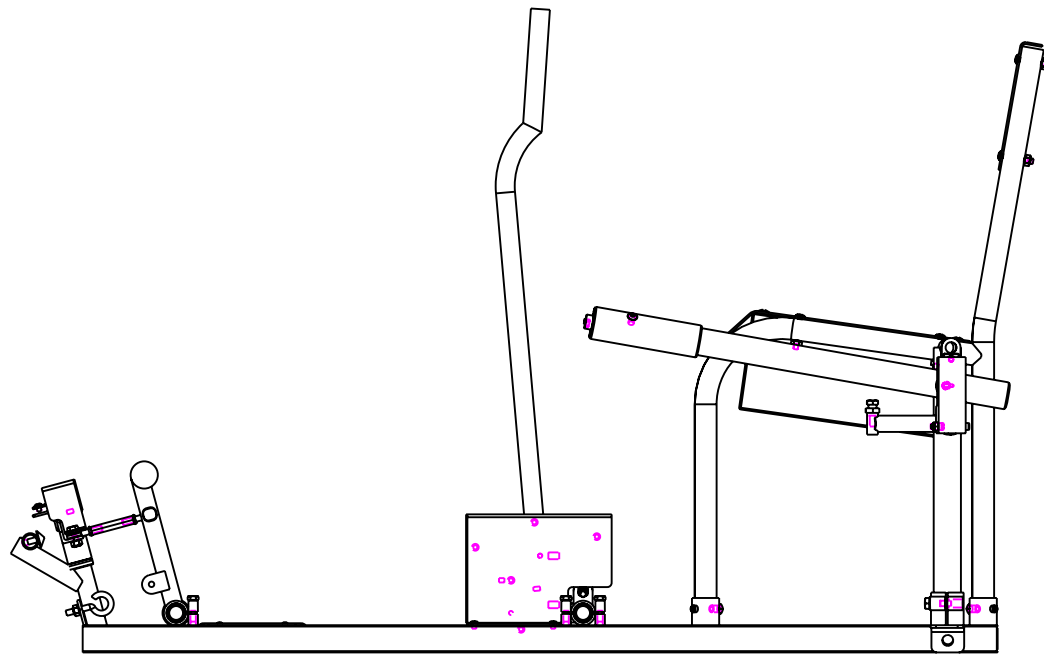
Date	Rev.	Changes
19 Mar 2006	A1	Initial drawing release
25 Mar 2006	A2	Added "people proofing" guard assemblies, under seat box
15 Feb 2007	A3	Upgraded potentiometer mounting method, general refinements

Part Listing and BOM

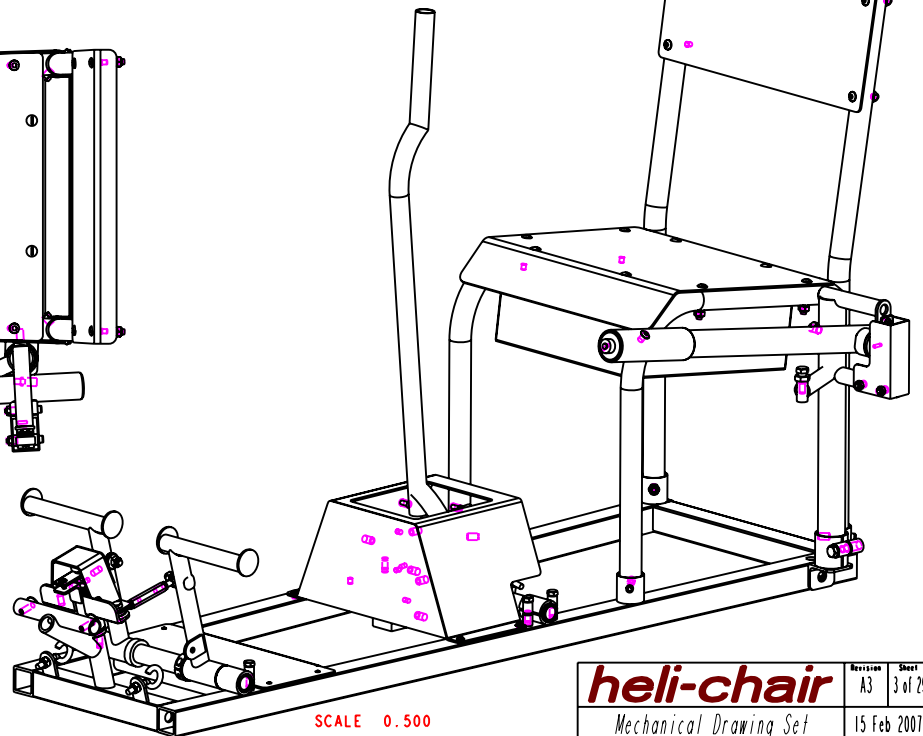
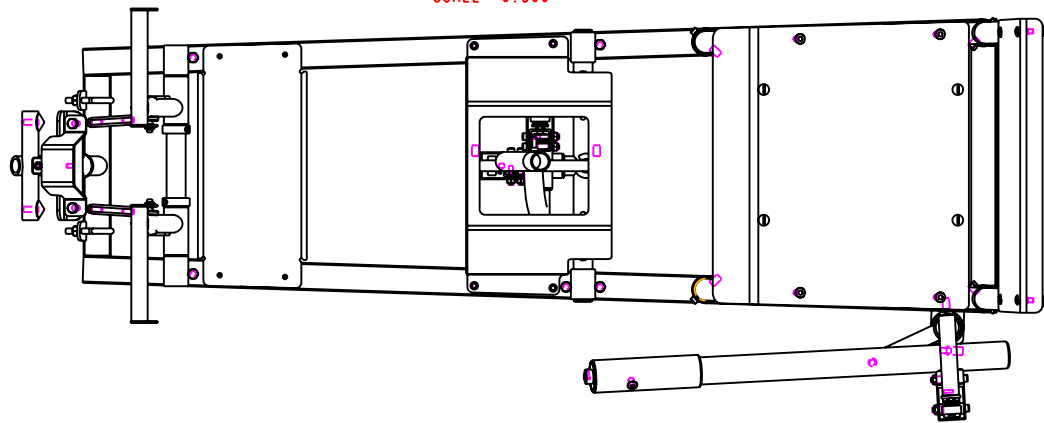
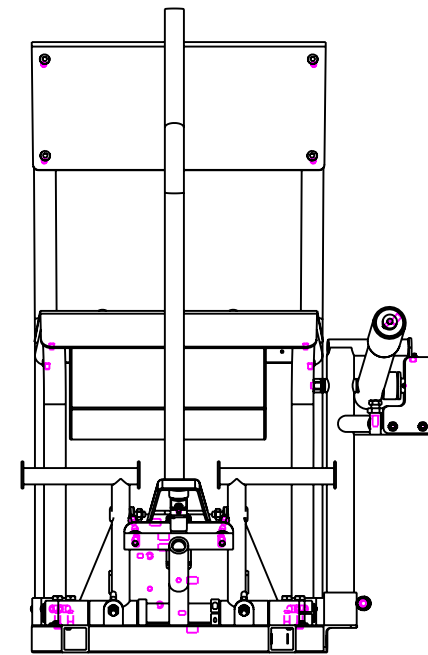
IDX #	Item Name	Qty
1	BASE, FRAME, WELDMENT, ASSEMBLY	
	BASE, FRAME, FRONT	
	BASE, FRAME, REAR	
	BASE, FRAME, LEFT	
	BASE, FRAME, RIGHT	
	PAN, TAB, SHORT	
	COLLECTIVE, MOUNT, WELDMENT	
	COLLECTIVE, MOUNT, BOSS	1
	COLLECTIVE, MOUNT, THREADED, SPUD	1
	WASHER, 0313, 040	1
	BOLT, 0313x24, L1000	1
	SPLIT, CLAMP, DOUBLE	
	SPLIT, CLAMP, BOSS	1
	SPLIT, CLAMP, THREADED, SPUD	2
	WASHER, 0250, 040	2
	BOLT, 0250x20, L1000	2
	SPLIT, CLAMP, SINGLE, RIGHT	
	SPLIT, CLAMP, BOSS	1
	SPLIT, CLAMP, THREADED, SPUD	1
	WASHER, 0250, 040	1
	BOLT, 0250x20, L1000	1
	SPLIT, CLAMP, SINGLE, LEFT	
	SPLIT, CLAMP, BOSS	1
	SPLIT, CLAMP, THREADED, SPUD	1
	WASHER, 0250, 040	1
	BOLT, 0250x20, L1000	1
	SEAT, FOOTPRINT	
	SEAT, SPUD, SUBASSEMBLY	
	SEAT, MOUNT, SPUD	1
	BOLT, 10-32, 1500, SOCKETHEAD	1
	WASHER, 1032, 040	1
	NUT, 0250-20, NYLOCK	1
	PEDAL, POST, WELDMENT	
	PEDAL, POST	1
	PEDAL, POST, FLANGE	1
	PEDAL, POST, STOP, POSITIONER	1
	PEDAL, POST, STOP, BAR	1
	RUBBER, BUMPER	2
	POTENTIOMETER, GRIP, COLLAR	1
2	SEAT, STANDARD, ASSEMBLY	
	SEAT, FOOTPRINT	
	SEAT, FRAME, HALF	
	SEAT, FRAME, POST	1
	SEAT, FRAME, LEG	1
	SEAT, BACK	
	SEAT, BOTTOM	
	BOLT, BUTTONHEAD, 0250, 1500	
	WASHER, 0250, 040	
	NUT, 0250-20, NYLOCK	
	UNDER, SEAT, BOX	
	OZEUS, BUTTON	
	RIVET, BLIND	
	OZEUS, SPRING	
3	KICK, PLATE	
4	RIVET, BLIND	
5	PEDAL, PIVOT, BAR	
6	SPACER, NYLON, 025	
7	SPACER, NYLON, 100	
8	WALKING, BAR, WELDMENT	
	WALKING, BAR, PIVOT, BUSHING	
	WALKING, BAR, ARM, LEFT	
	WALKING, BAR, ARM, RIGHT	

9	WALKING, BAR, POT, MOUNT		
	EYE, BOLT		
10	WASHER, 0250, 040		
11	NUT, 0250-20, NYLOCK		
12	PEDAL, WELDMENT, LEFT		
	PEDAL, PIVOT, BUSHING		
	PEDAL, RISER		
	PEDAL, FOOT, BAR		
	PEDAL, FOOT, CATCH		
	PAN, TAB, SHORT		
13	PEDAL, WELDMENT, RIGHT		
	PEDAL, PIVOT, BUSHING		
	PEDAL, RISER		
	PEDAL, FOOT, BAR		
	PEDAL, FOOT, CATCH		
	PAN, TAB, SHORT		
14	PEDAL, LINKAGE, ASSEMBLY		
	THREADED, LINKAGE, HEX		
	ROD, END, 0250, LH		
	ROD, END, 0250, RH		
	NUT, JAMB, 0250, LH		
	NUT, JAMB, 0250, RH		
15	BOLT, CUSTOM, SHAPED		
16	NUT, 0250-20, NYLOCK		
17	BOLT, 0250x20, L0750		
18	SPLIT, BAR, CLAMP		
19	POTENTIOMETER, PLATE, PEDALS		
20	BOLT, BUTTONHEAD, 0188, 0250		
21	WASHER, 0375, 070		
22	POTENTIOMETER		
23	CIRCLIP		
24	CYCLIC, SUBASSEMBLY		
	CYCLIC, MOUNT, WELDMENT		
	CYCLIC, CROSS, BAR	1	
	CYCLIC, MOUNT, STUB	1	
	PAN, TAB, COPE	2	
	POTENTIOMETER, GRIP, COLLAR	1	
	CIRCLIP		
	SPACER, NYLON, 025		
	CYCLIC, GIMBAL, WELDMENT		
	CYCLIC, GIMBAL, LATERAL, BUSHING	1	
	CYCLIC, GIMBAL, FOREAFT, BUSHING	1	
	CYCLIC, GIMBAL, POT, MOUNT	2	
	CYCLIC, GIMBAL, TIEPLATE	2	
	CYCLIC, FOREAFT, SPRING, SUPPORT	1	
	CYCLIC, GIMBAL, SPRING, ROD	1	
	BOLT, 10-32, 0500, SOCKETHEAD	2	
	CYCLIC, GIMBAL, AFT, SPRING, MOUNT	1	
	CYCLIC, POTCOVER, LOWER, BOSS	2	
	EYE, BOLT		
	WASHER, 0250, 040		
	NUT, 0250-20, NYLOCK		
	POTENTIOMETER, PLATE, CYCLIC		
	BOLT, BUTTONHEAD, 0188, 0250		
	WASHER, 0375, 070		
	POTENTIOMETER		
	CYCLIC, WELDMENT		
	CYCLIC, STICK, PIVOT	1	
	STANDARD	1	
	CYCLIC, STICK, P2	1	
	BOLT, 10-32, 0500, SOCKETHEAD	1	

			POTENTIOMETER, GRIP, COLLAR	1
		R14		
		CYCLIC, POTENTIOMETER, COVER		
		SET, SCREW, 10-32, 0313		
		BOLT, 10-32, 1500, SOCKETHEAD		
		NUT, 10-32, NYLOCK		
25	COLLECTIVE, SUBASSEMBLY			
	COLLECTIVE, RISER, WELDMENT			
	COLLECTIVE, RISER			
	COLLECTIVE, RISER, PIVOT, BUSHING			
	COLLECTIVE, RISER, UPSTOP			
	COLLECTIVE, RISER, DOWN, STOP			
	COLLECTIVE, RISER, DOWNSTOPSPUD			
	COLLECTIVE, POT, MOUNTING, TAB			
	COLLECTIVE, RISER, LOWER, MOUNT			
	COLLECTIVE, RISER, LOWER, SPUD			
	BOLT, 0375x24, L1000			
	R38			
	COLLECTIVE, WELDMENT			
	COLLECTIVE			
	COLLECTIVE, PIVOT			
	COLLECTIVE, GROMMET, BOSS			
	THROTTLE, GRIP, ENDPLATE			
	POTENTIOMETER, PLATE, COLLECTIVE			
	BOLT, BUTTONHEAD, 0188, 0250			
	WASHER, 0375, 070			
	POTENTIOMETER			
	BOLG, 375-16, 3500, SOCKETHEAD			
	WASHER, NYLON, 375, 020			
	NUT, 0375-16, NYLOCK			
	THROTTLE, GRIP, WELDMENT			
	THROTTLE, GRIP			
	THROTTLE, GRIP, ENDPLATE			
	THROTTLE, CUSTOM, BOLT			
	THROTTLE, POT, POSITIONER			
	SET, SCREW, 10-32, 0313			
	SET, SCREW, 5-40, 0250			
	COLLECTIVE, PIVOT, BUSHING			
	COLLECTIVE, POTENTIOMETER, COVER			
	BOLT, 10-32, 1500, SOCKETHEAD			
	NUT, 10-32, NYLOCK			
26	CYCLIC, GIMBAL, HOUSING			
27	WALKING, BAR, HOUSING			
28	WALKING, BAR, HOUSING, PLATE			
29	CYCLIC, HOUSING, PLATE, FRONT			
30	SET, SCREW, 10-32, 0313			



SCALE 0.500



SCALE 0.500

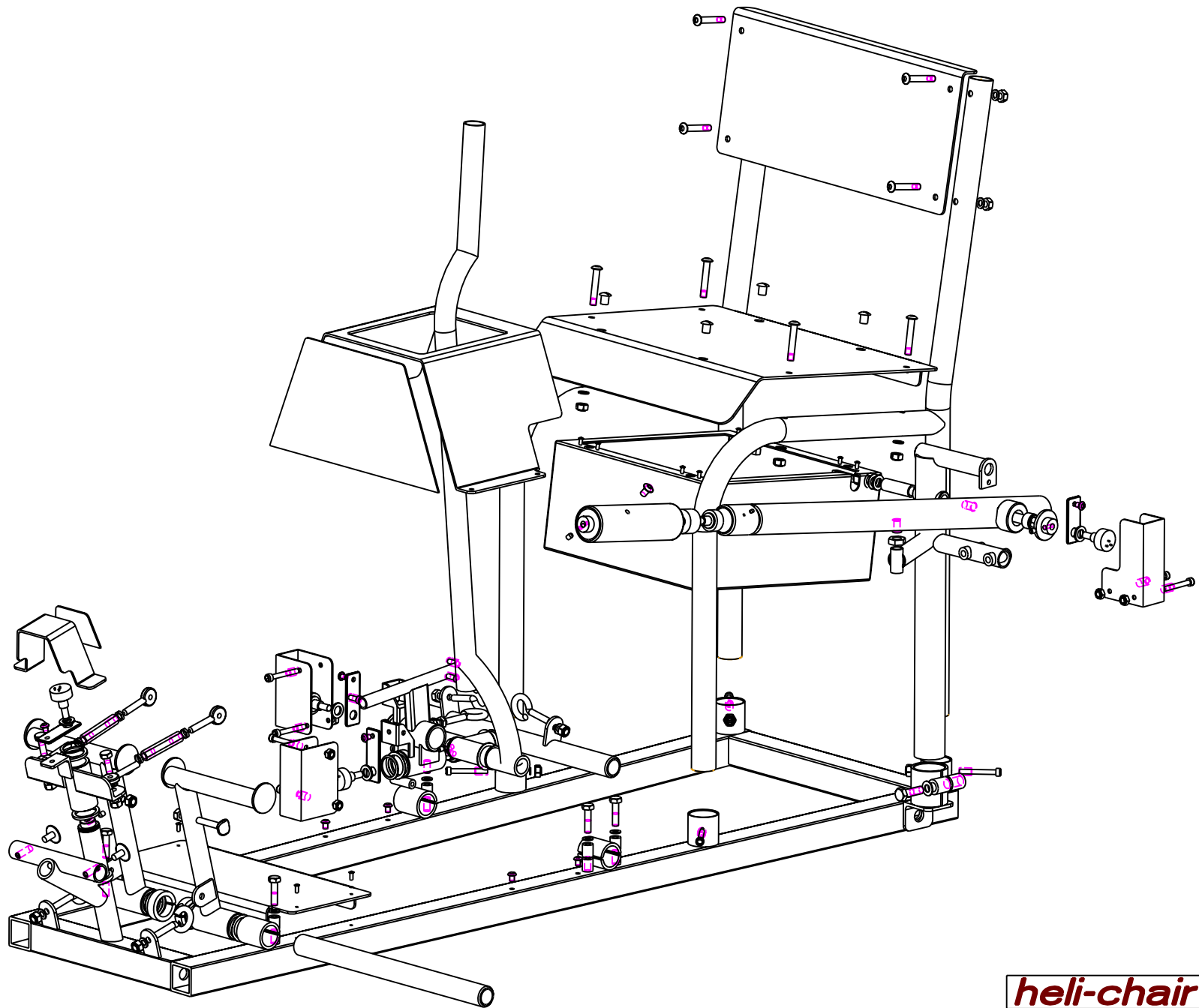
View names and "scale" are in RED

Dimensions and tolerances are in ORANGE

Fabrication and material specifications are in BLUE

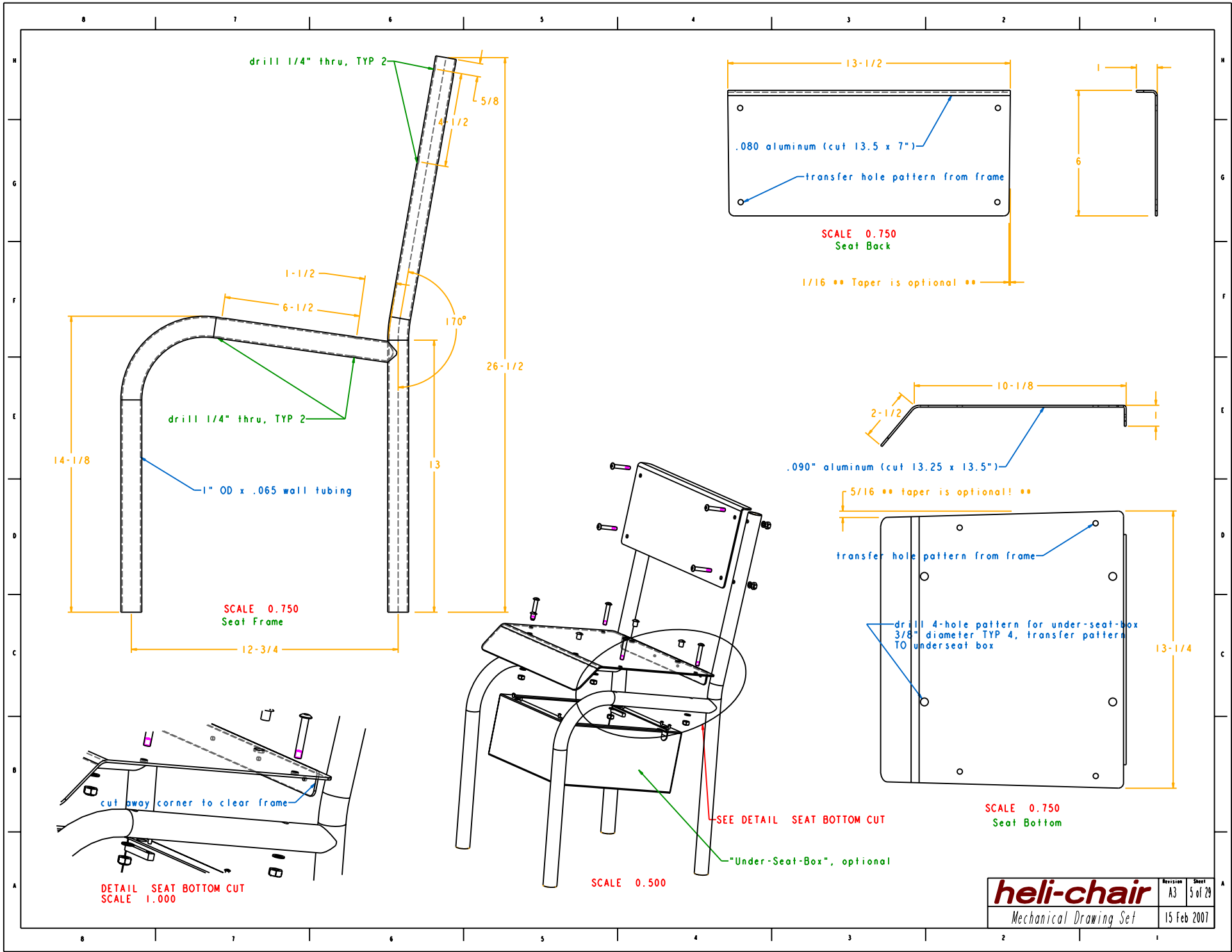
Feature notes (hole dims, etc) and part names are in GREEN

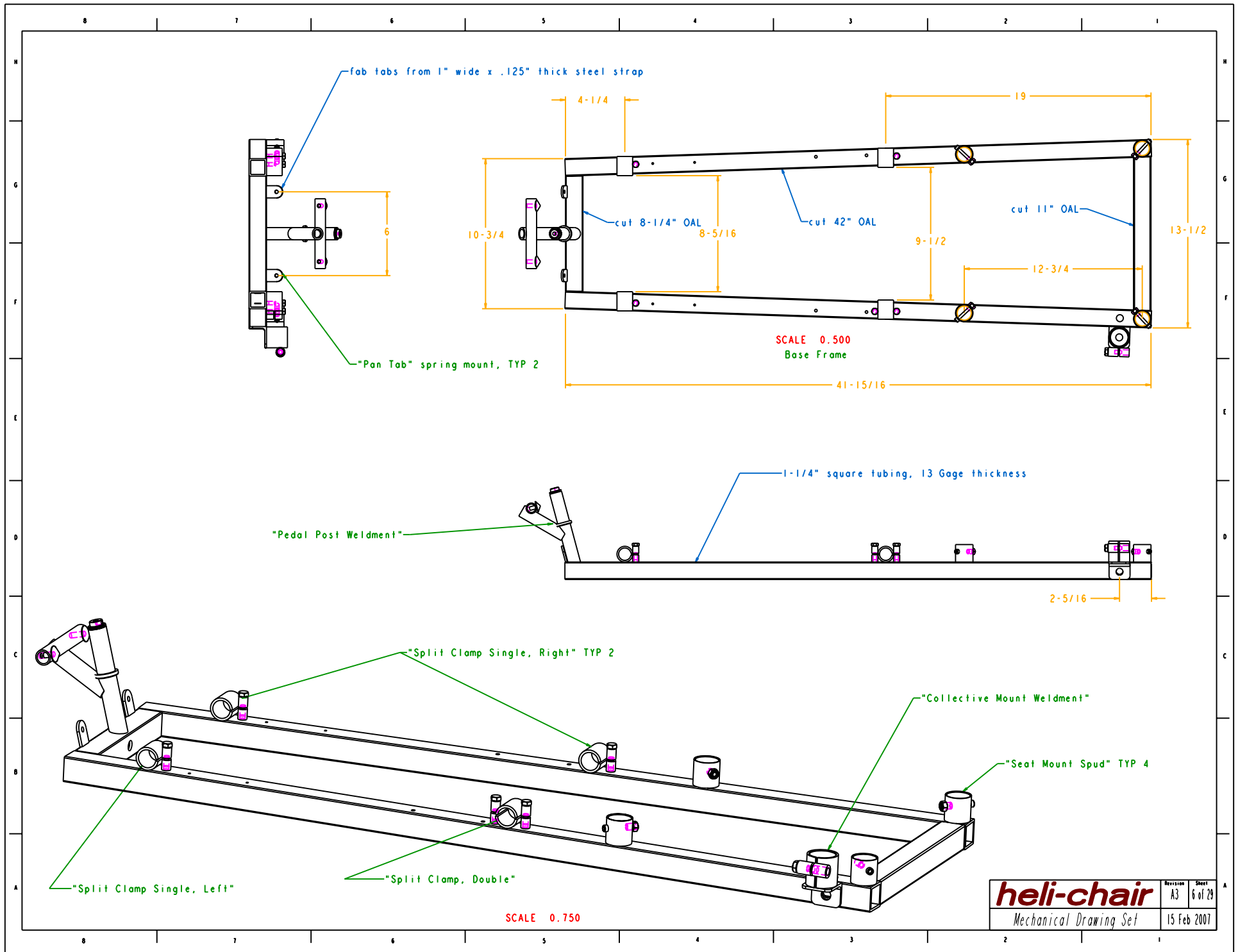
heli-chair	Revision	Sheet
	A3	3 of 29
Mechanical Drawing Set		15 Feb 2007

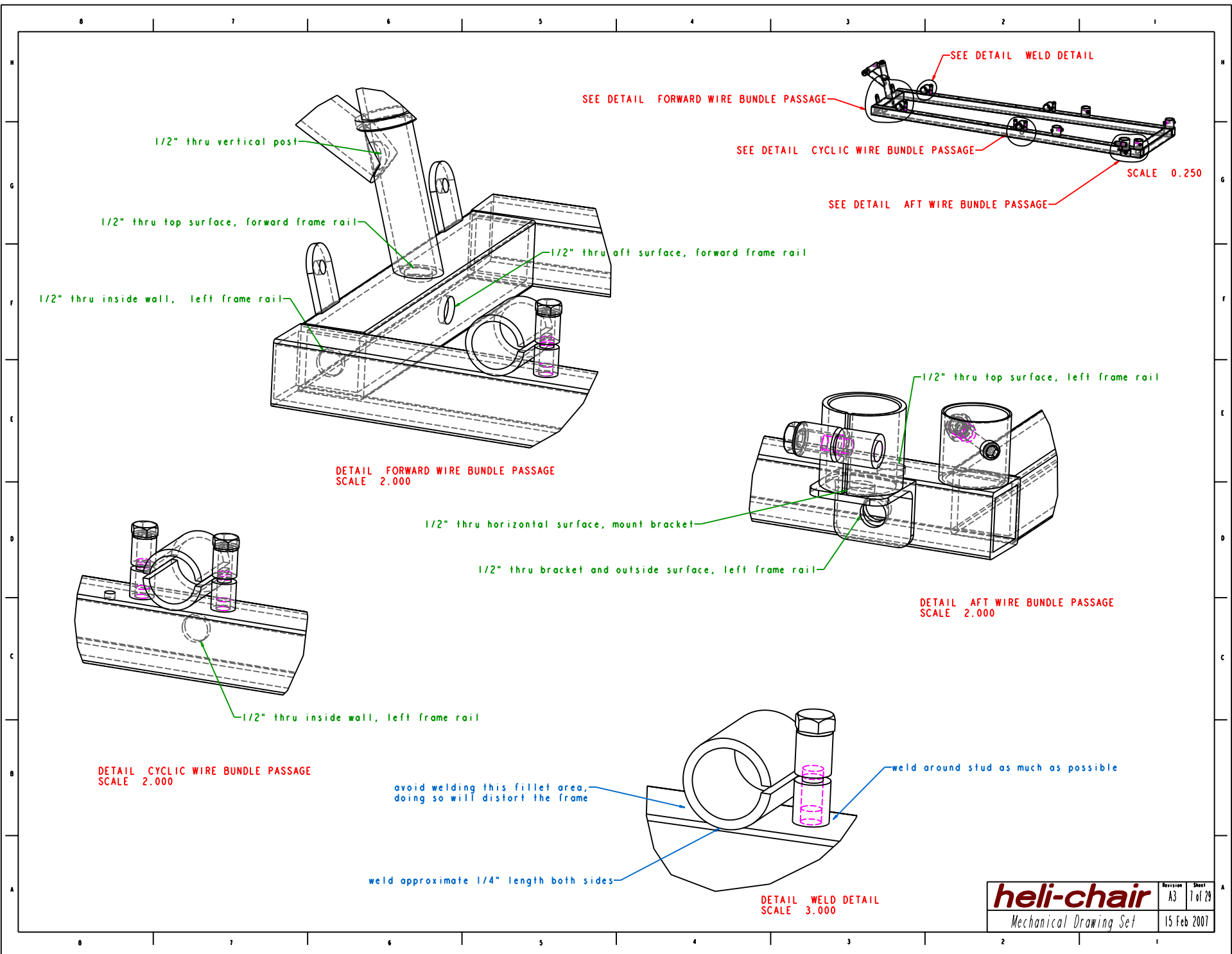


SCALE 0.750

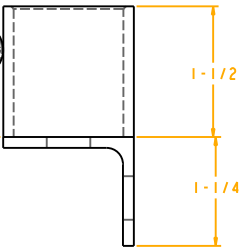
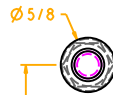
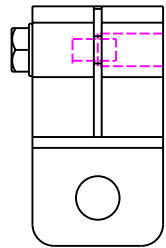
heli-chair	Revision	Sheet
	A3	4 of 29
Mechanical Drawing Set		15 Feb 2007



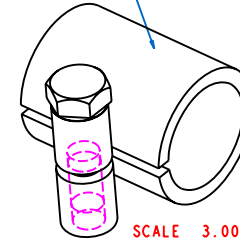




SCALE 2.000

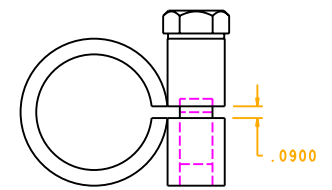


1-1/8" OD x .120 wall

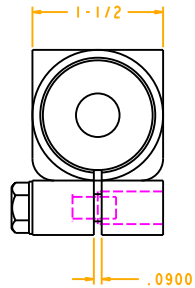


SCALE 3.000

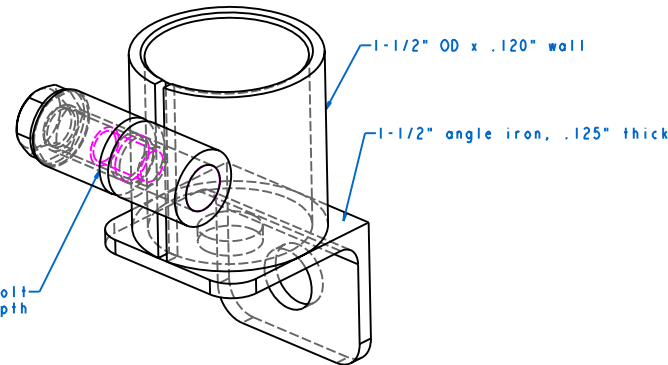
Split Clamp Single (shown: Right)



SCALE 3.000

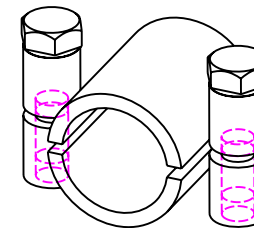


tapped spud for 3/8 x 24 bolt—
tap thru full, drill .375 to mid-depth

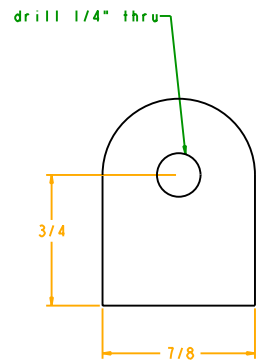
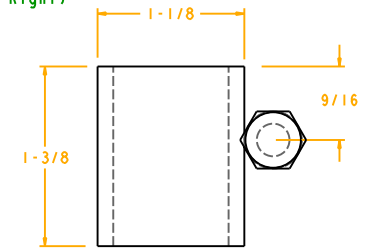


SCALE 3.000

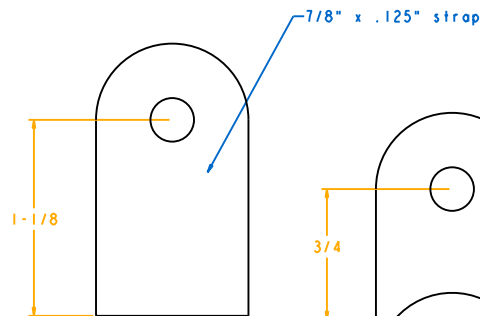
Collective Mount Weldment



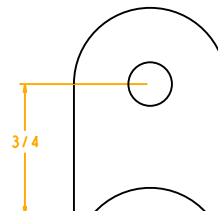
SCALE 3.000
Split Clamp Double



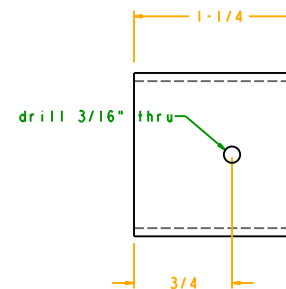
SCALE 4.000
Pan Tab, short



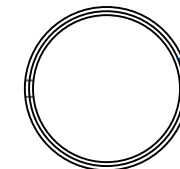
SCALE 4.000
Pan Tab, long



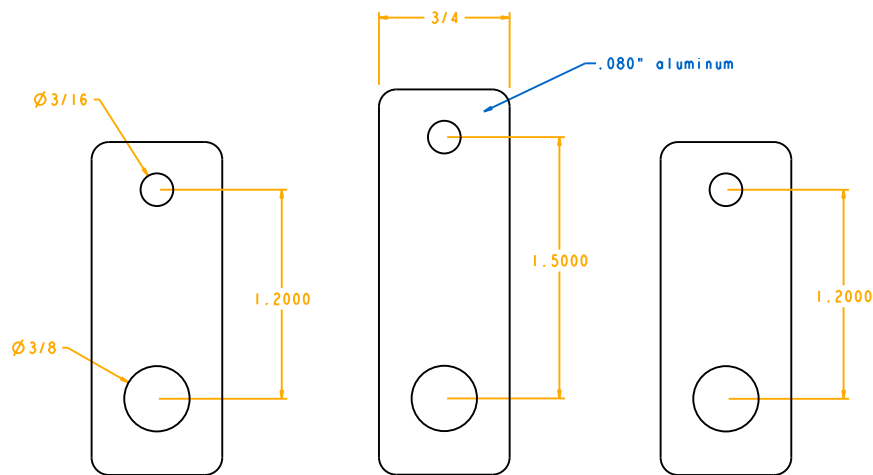
SCALE 4.000
Pan Tab, coped



1-1/4" OD x .065 wall tubing



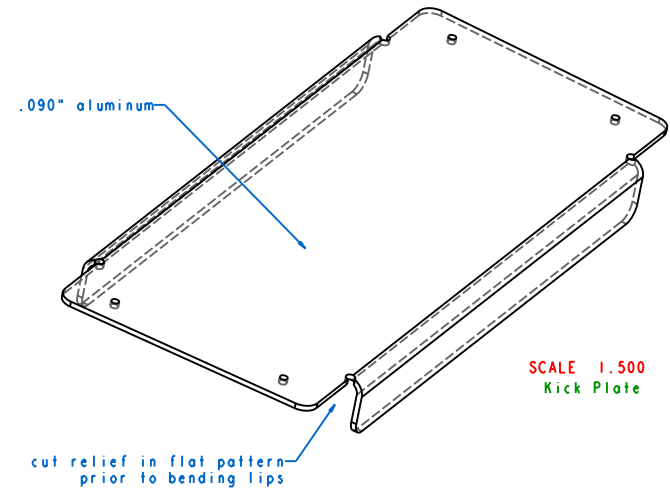
SCALE 3.000
Seat Mount Spud



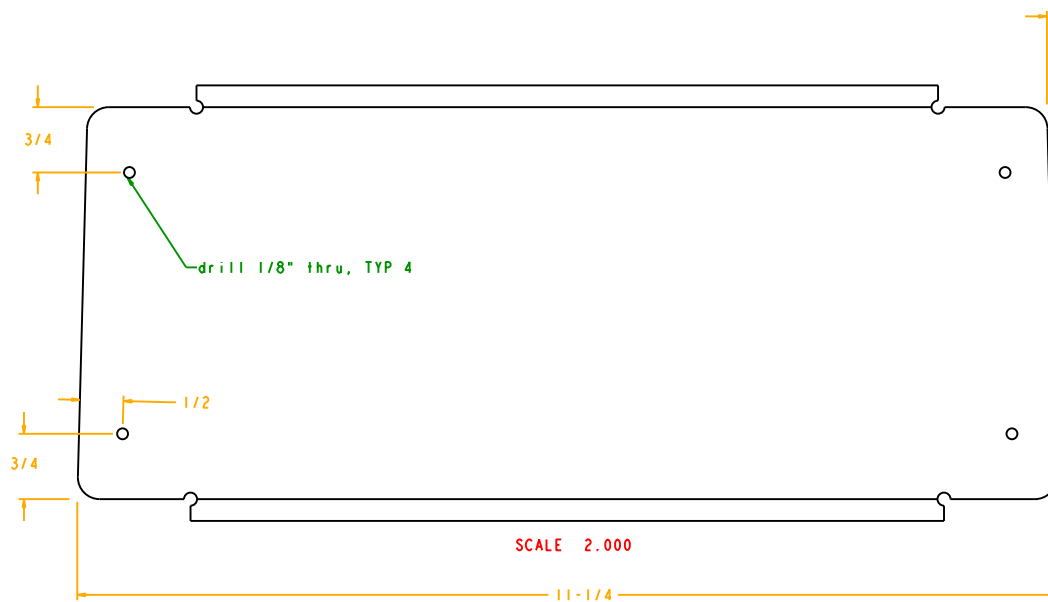
SCALE 4.000
Anti-Torque Pedals
Potentiometer Positioning Plate

SCALE 4.000
Cyclic (2 used)

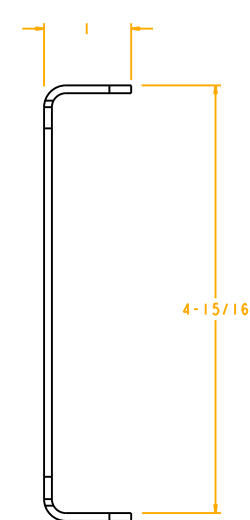
SCALE 4.000
Collective

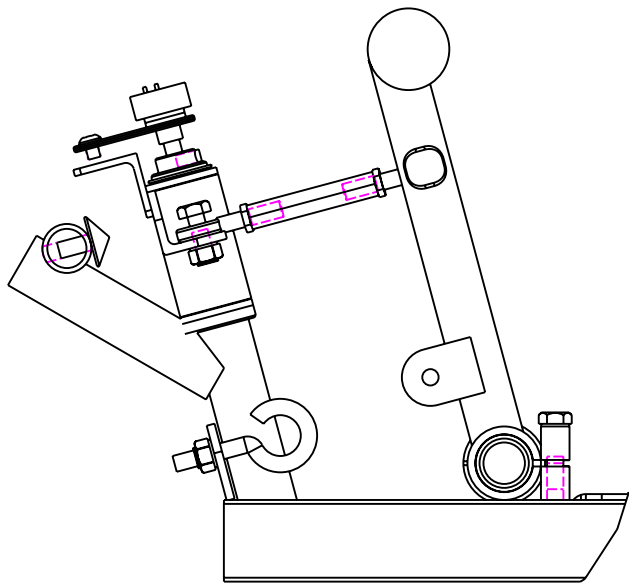
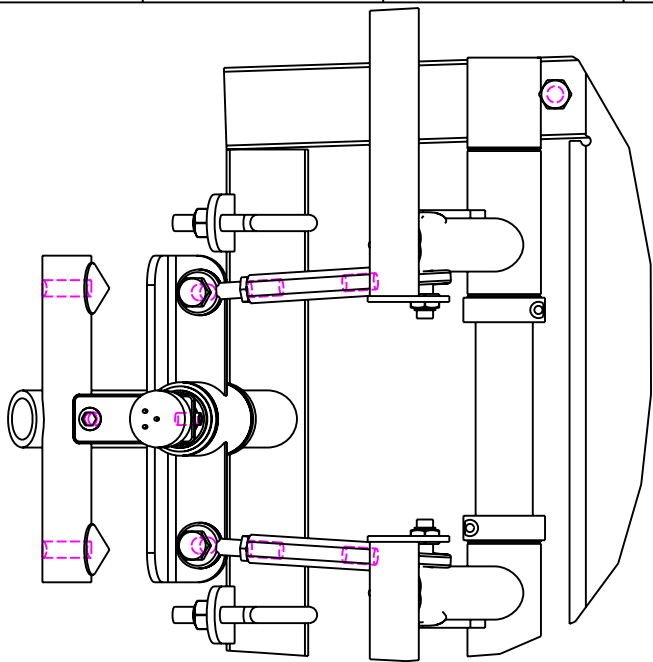


SCALE 1.500
Kick Plate

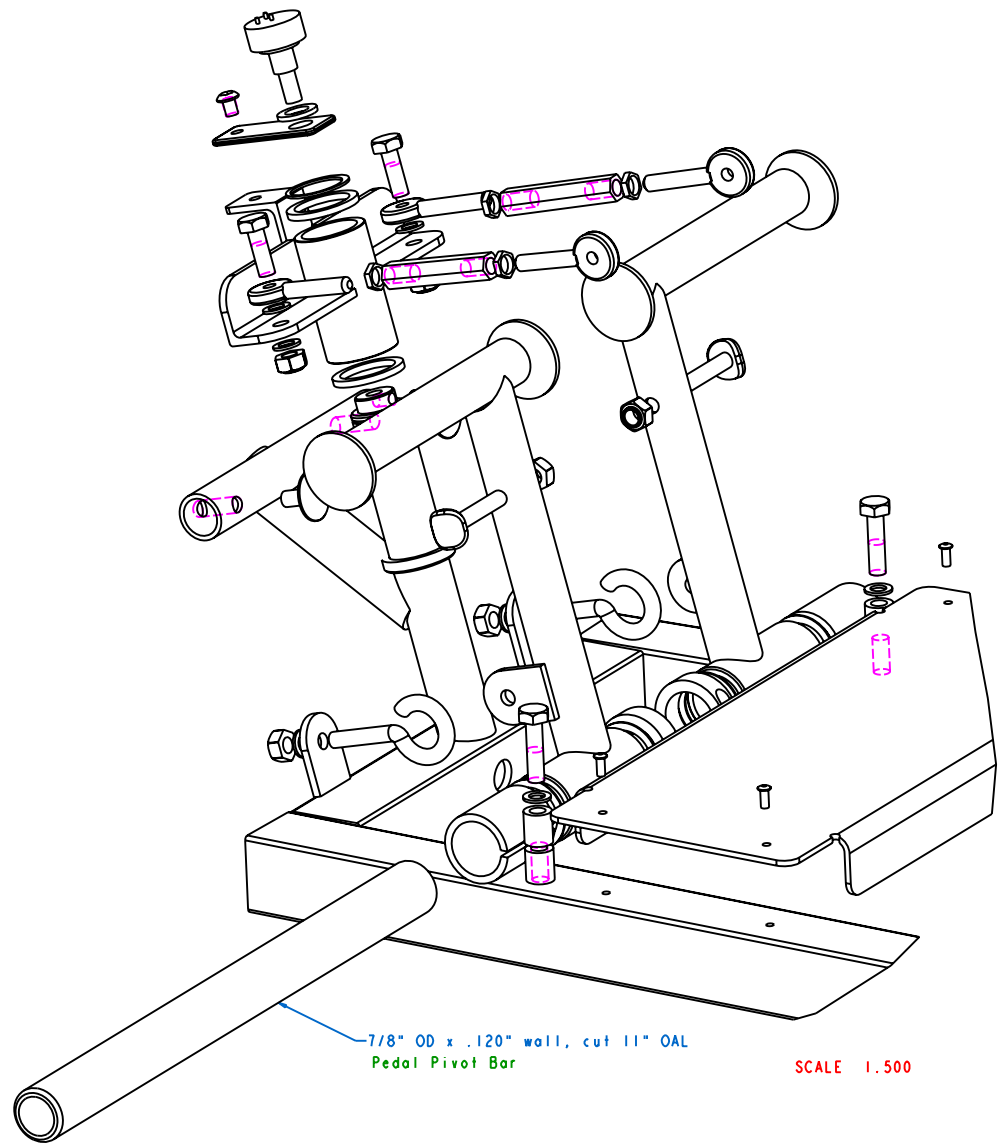


SCALE 2.000



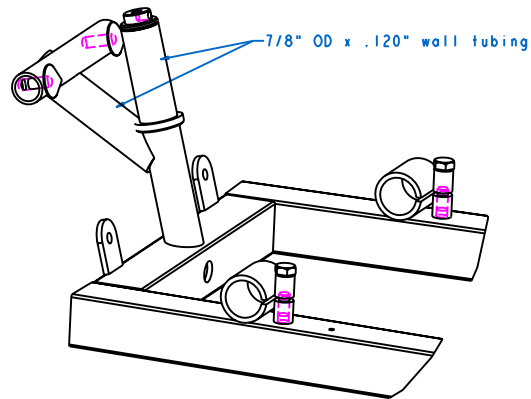


SCALE 1.500



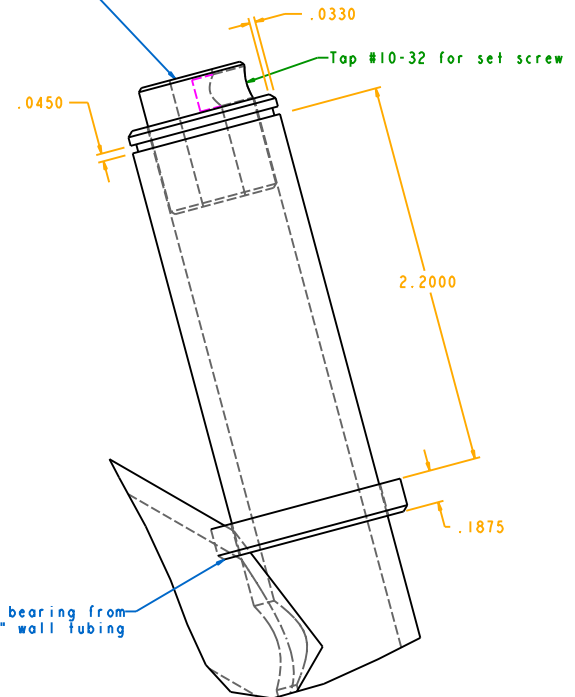
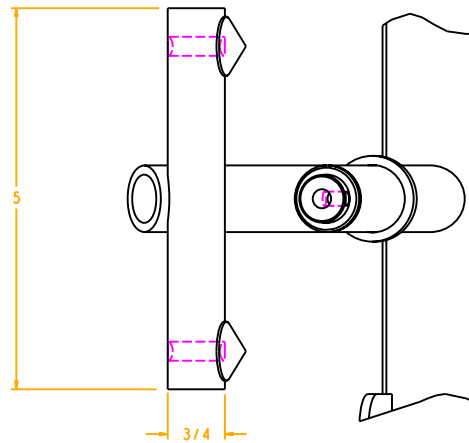
7/8" OD x .120" wall, cut 11" OAL
Pedal Pivot Bar

SCALE 1.500



SCALE 1.000

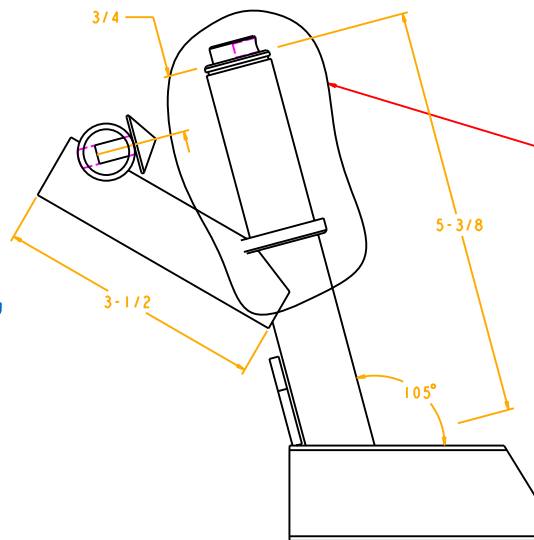
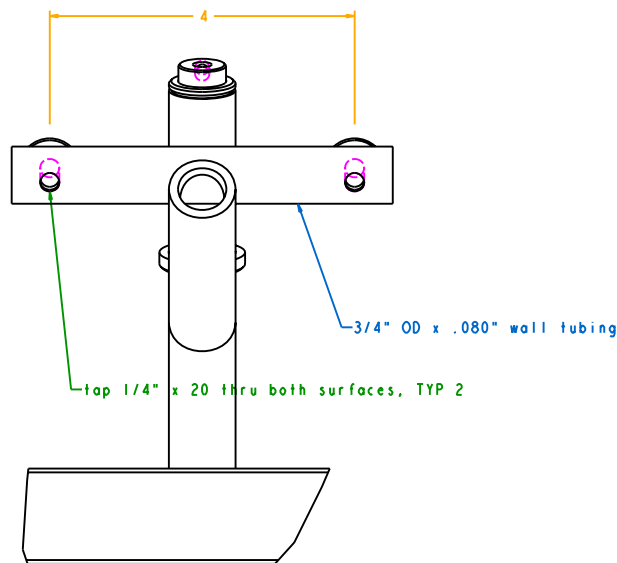
Weld special potentiometer grip collar into tubing and tighten setscrew to secure potentiometer shaft into collar



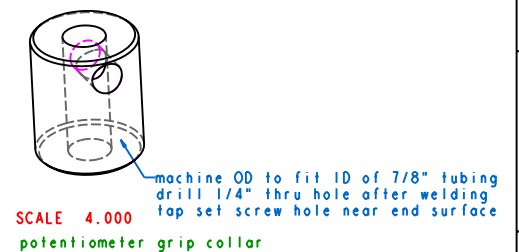
DETAIL PIVOT POST
SCALE 4.000

fab lower bearing from
1-1/8" OD x .120" wall tubing

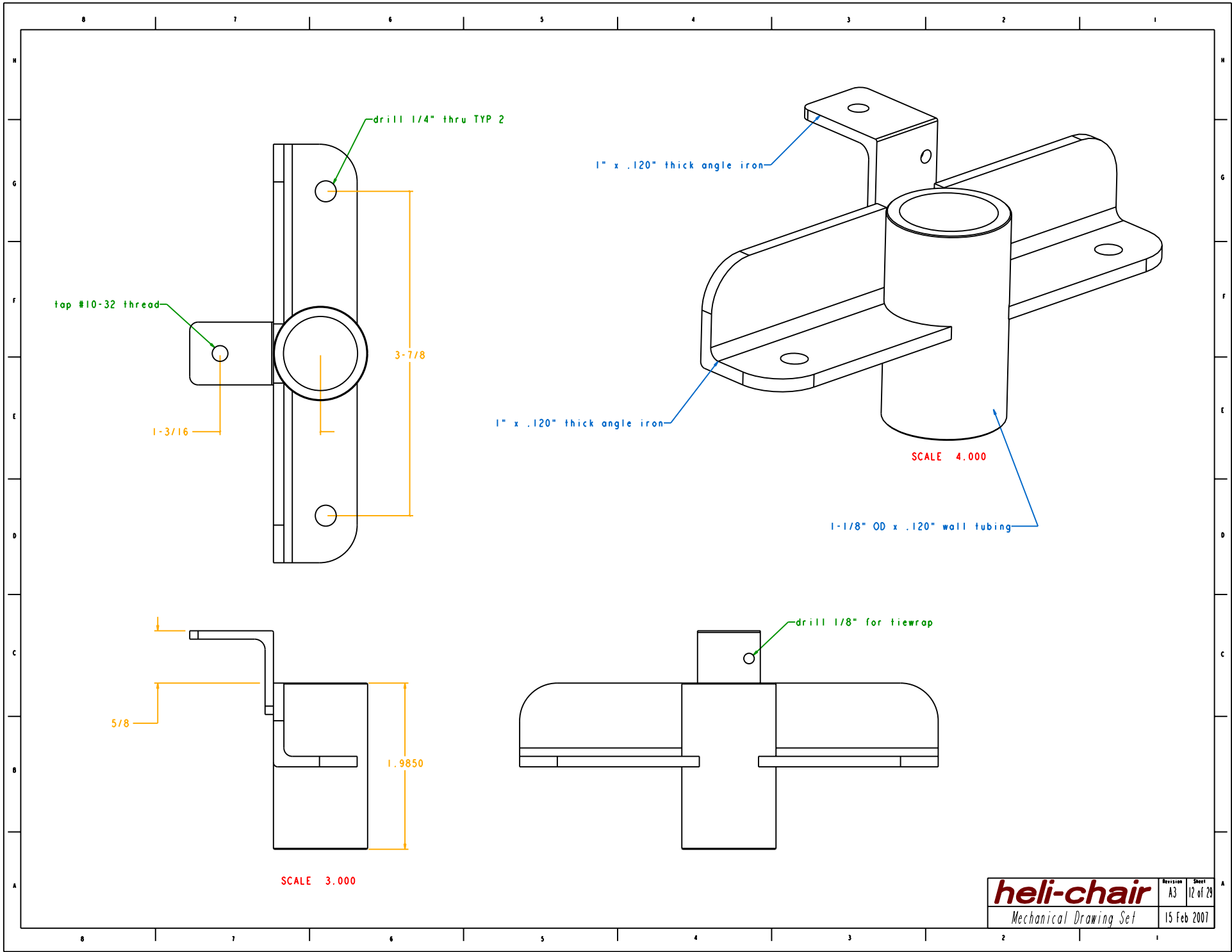
SEE DETAIL PIVOT POST

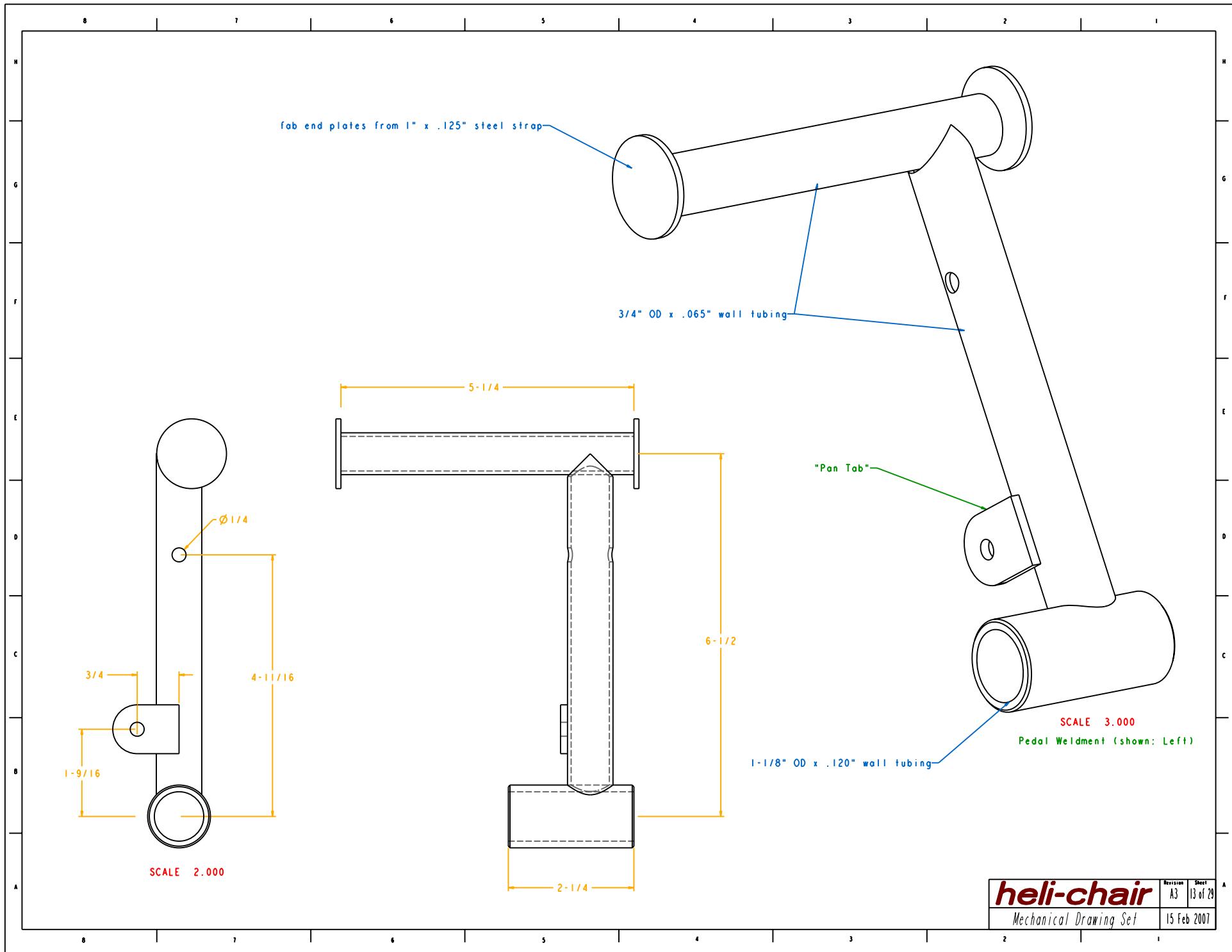


SCALE 1.750

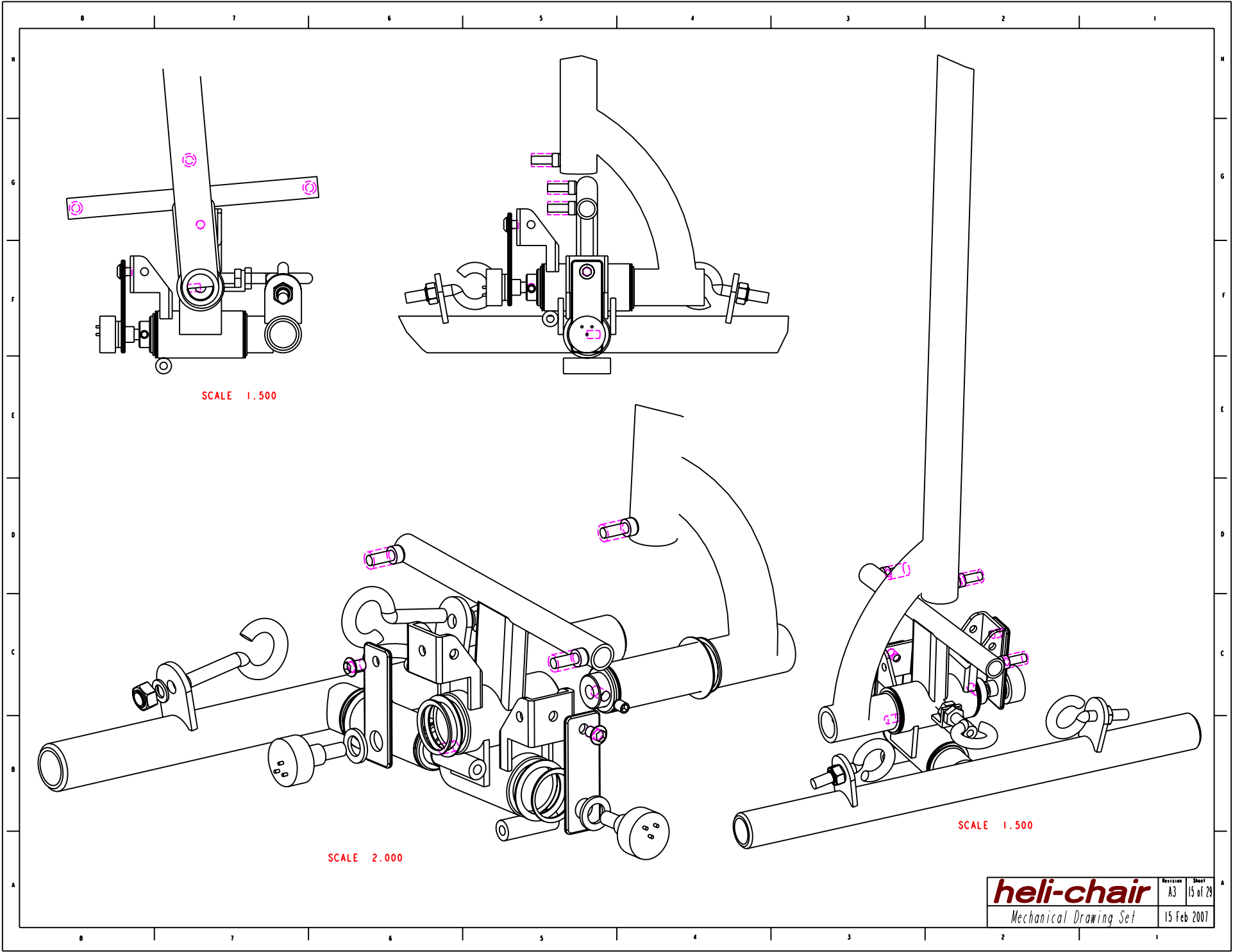


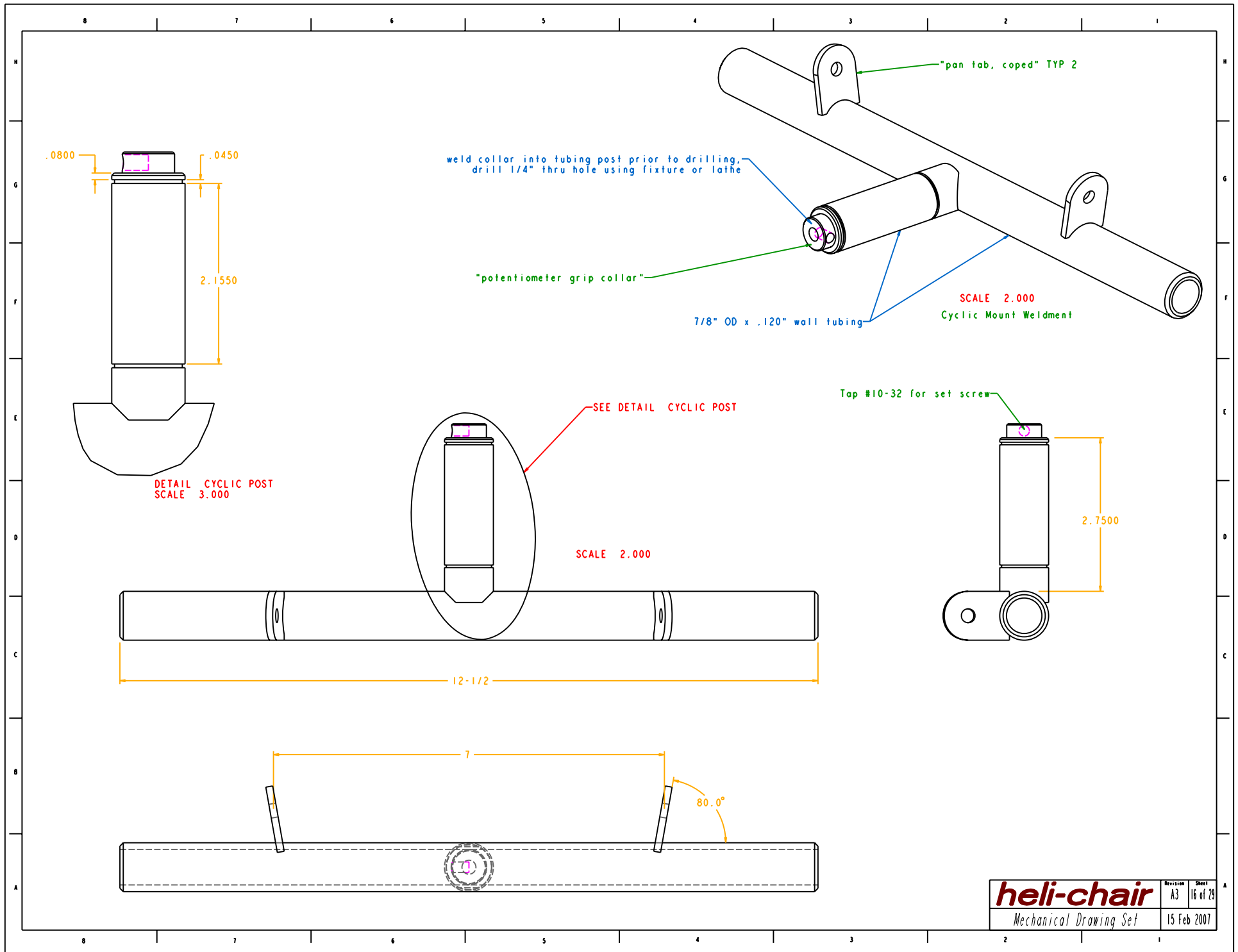
heli-chair		Revision	Sheet
Mechanical Drawing Set		A3	11 of 28
		15 Feb 2007	

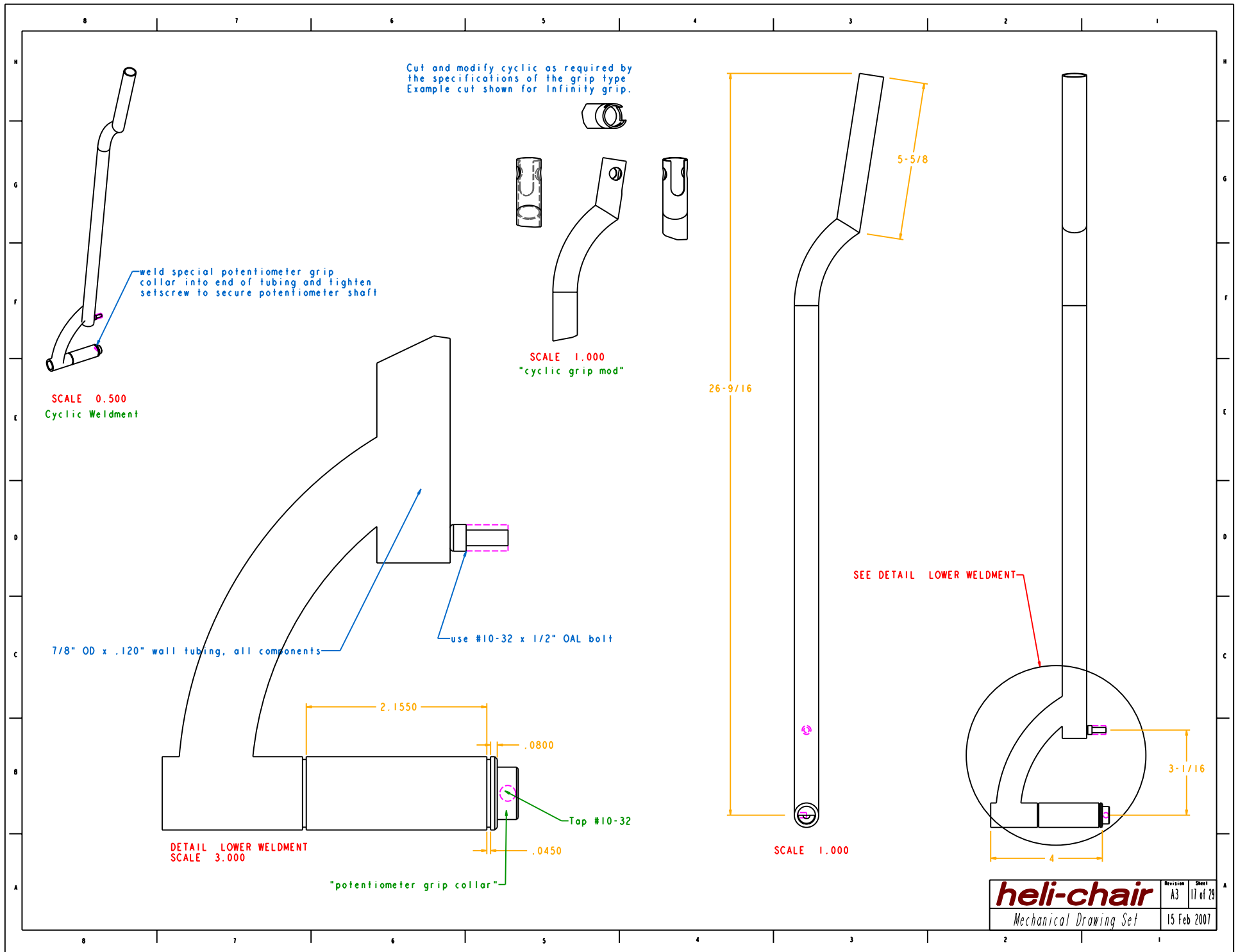


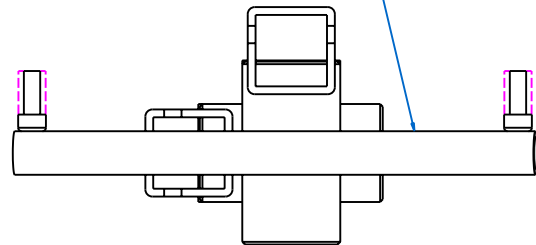
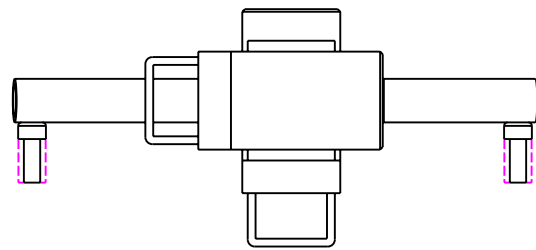


Cyclic Sub-Assembly



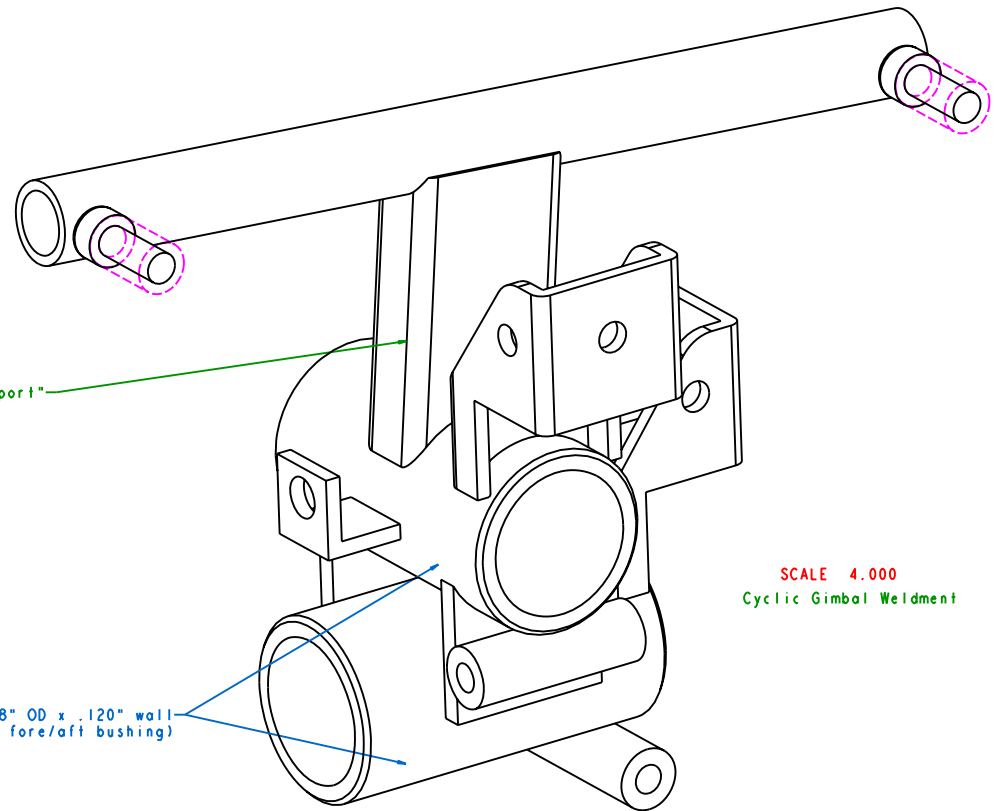






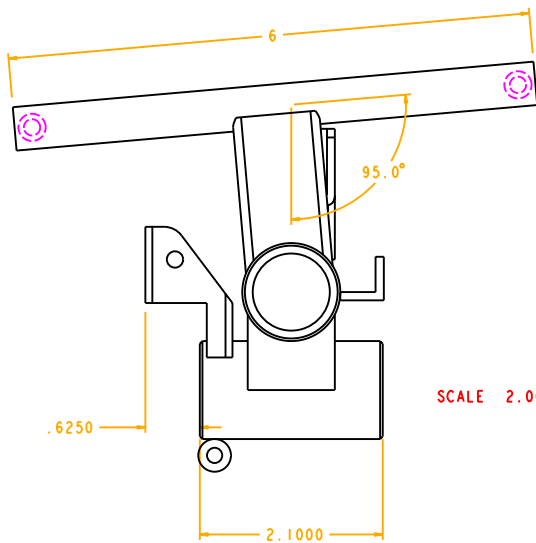
1/2" OD x .062 wall

"cyclic fore-aft spring support"

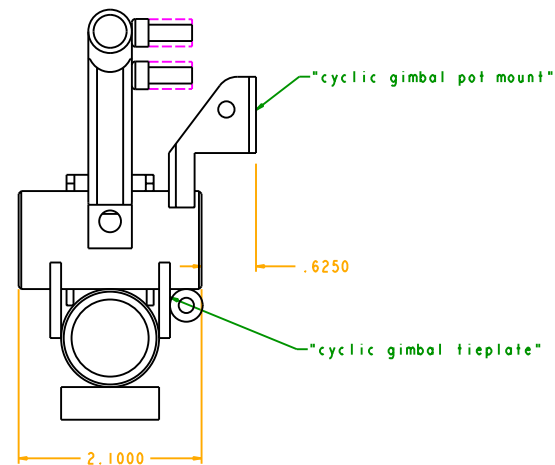


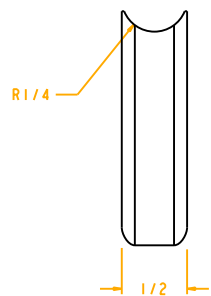
1-1/8" OD x .120" wall
(lateral and fore/aft bushing)

SCALE 4.000
Cyclic Gimbal Weldment



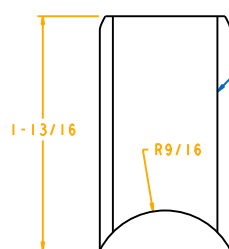
SCALE 2.000



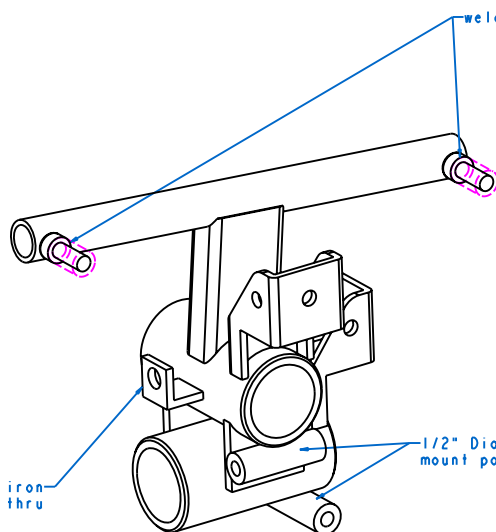


SCALE 3.000

cyclic gimbal fore-aft spring support



1" x .375" rectangular tubing, .100" wall

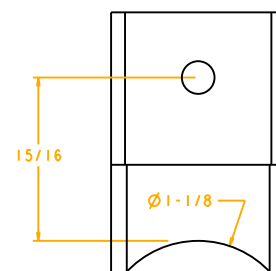


weld on #10-32 bolt 2 places

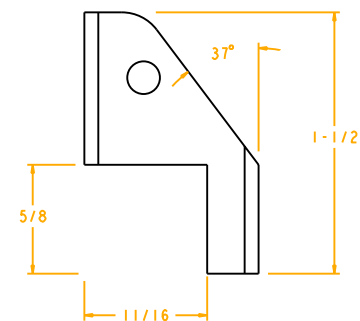
1/2" angle iron
drill 1/4" thru

1/2" Diam x .120" wall bosses provide
mount point for the potentiometer guards

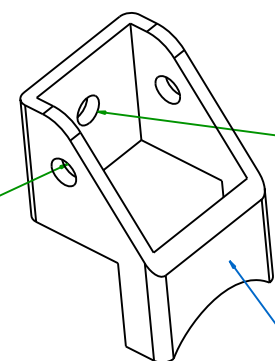
SCALE 2.000



SCALE 4.000



transfer hole position from potentiometer
cover and drill through for 10-32 bolt

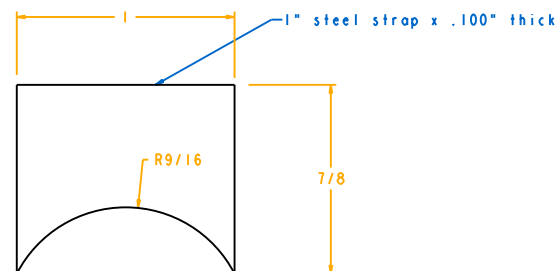


tap #10-32 thru

1" square tubing, 11 gage

SCALE 4.000

cyclic gimbal potentiometer mount

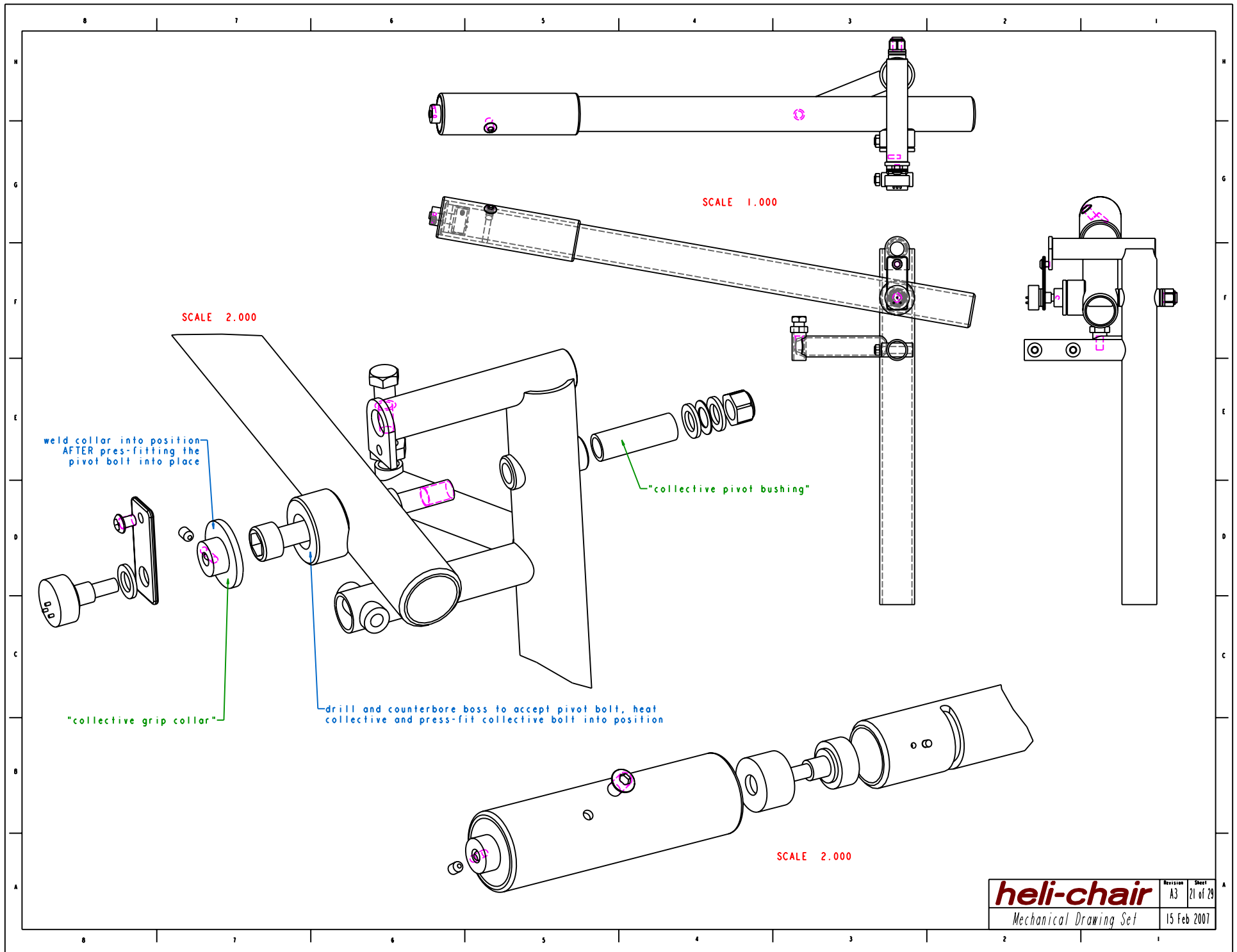


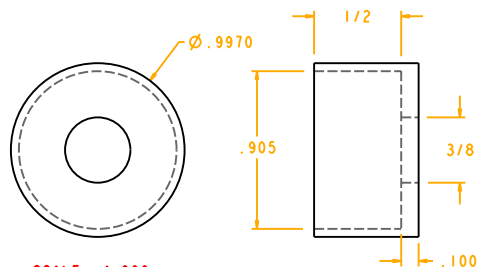
1" steel strap x .100" thick

SCALE 5.000

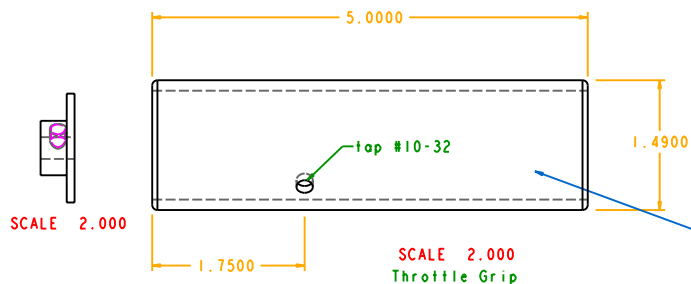
cyclic gimbal tieplate

Collective Sub-Assembly

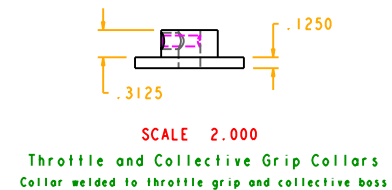
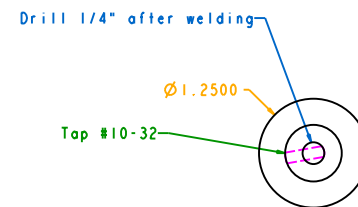




SCALE 4.000
Throttle Pot Grip

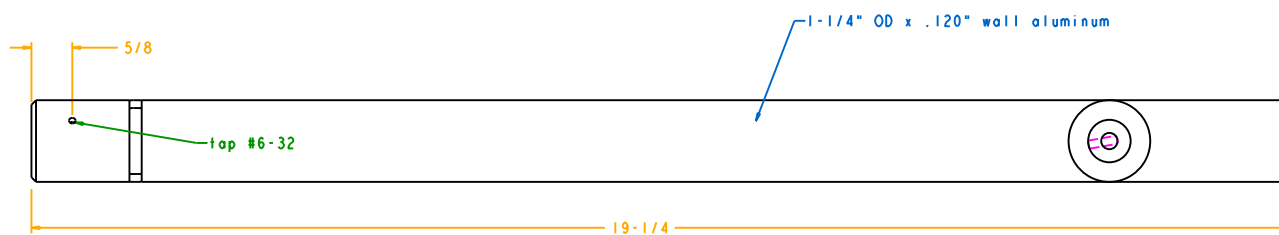


SCALE 2.000
Throttle Grip

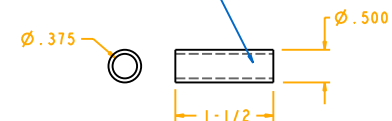


SCALE 2.000

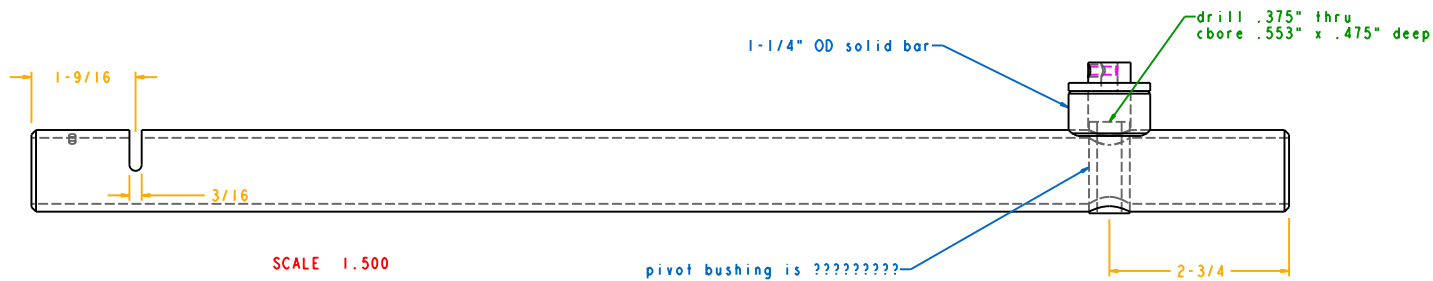
Throttle and Collective Grip Collars
Collar welded to throttle grip and collective boss



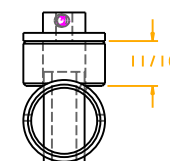
machine ID and OD from nylon stock



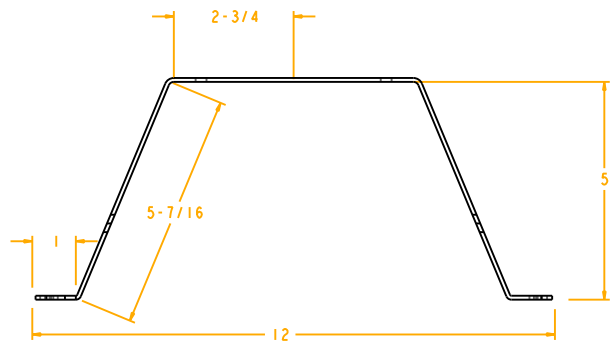
SCALE 1.500
Collective Pivot Bushing



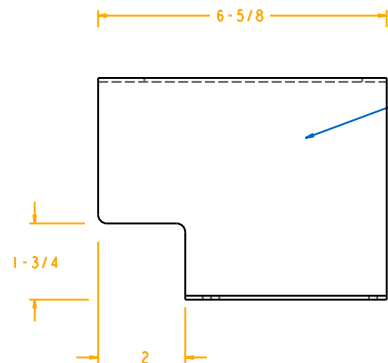
SCALE 1.500
Collective Weldment



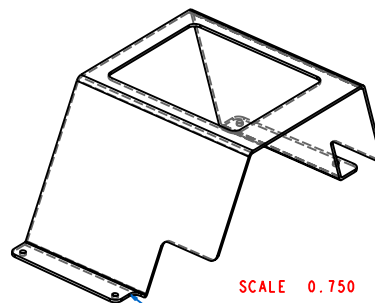
Sheet Metal Guards and auxillary box



SCALE 1.000
Cyclic Gimbal Housing

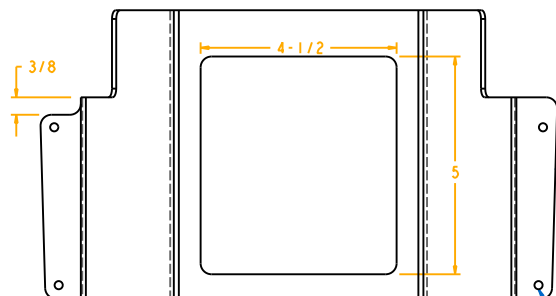


.060" aluminum sheet



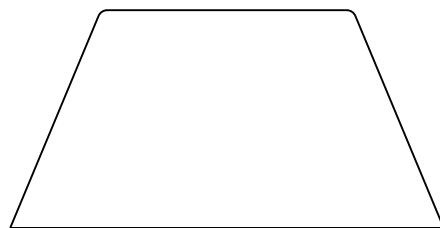
SCALE 0.750

note additional cutaway on this side

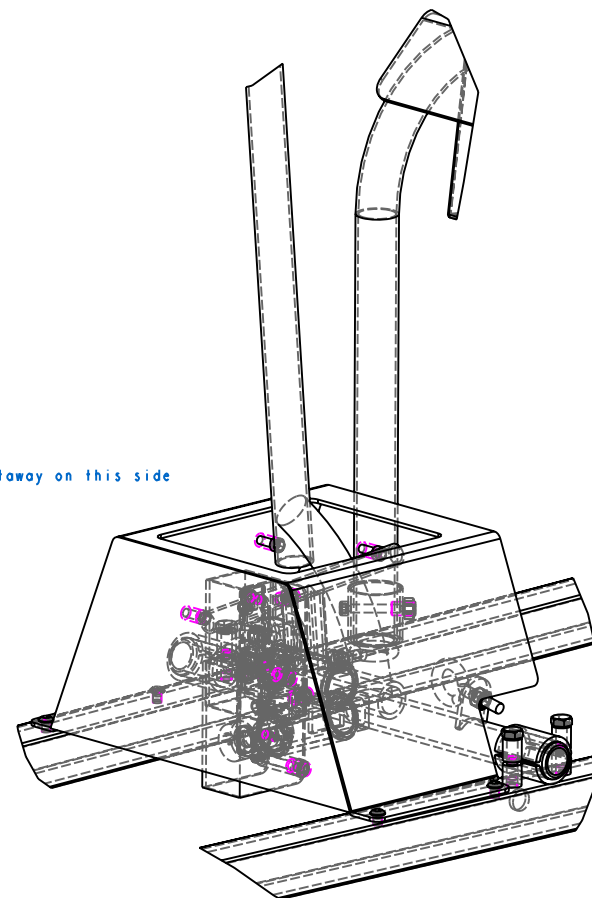


taper to match frame

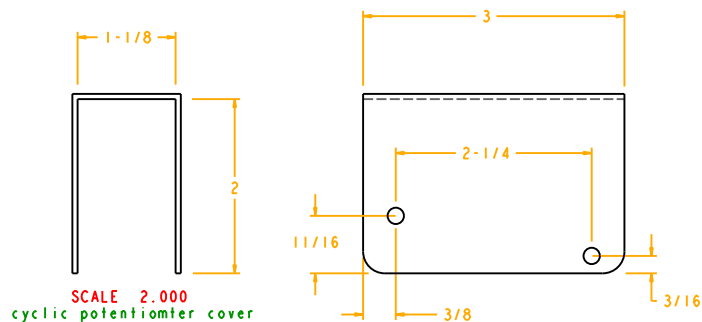
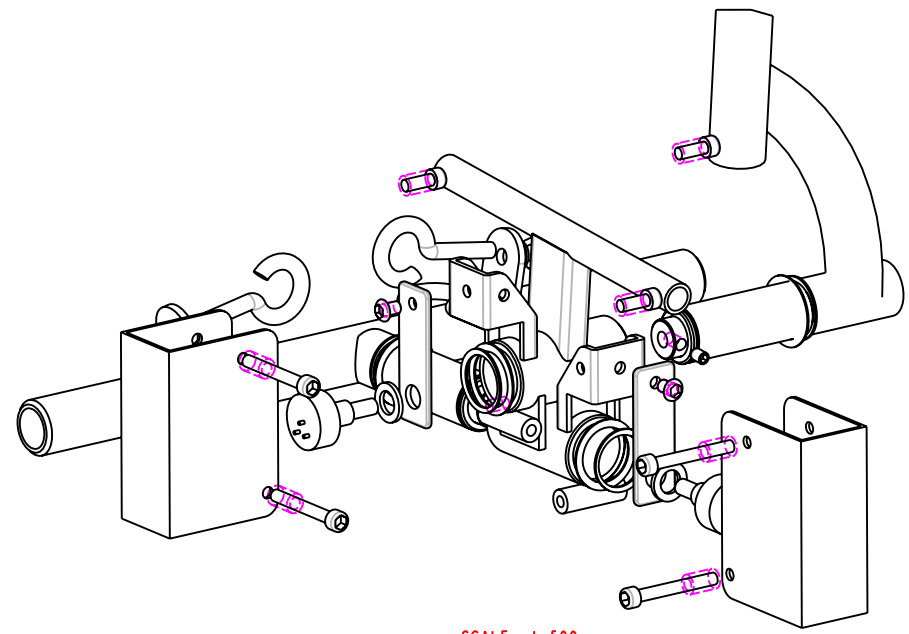
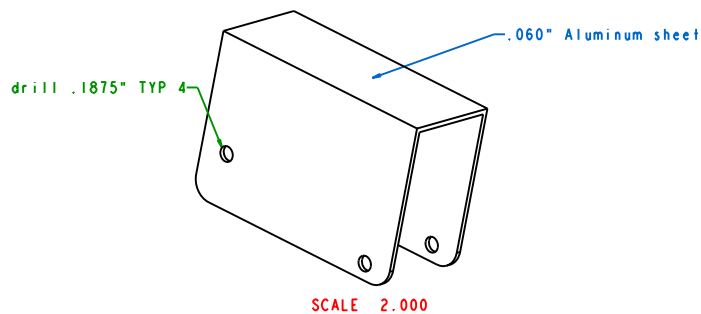
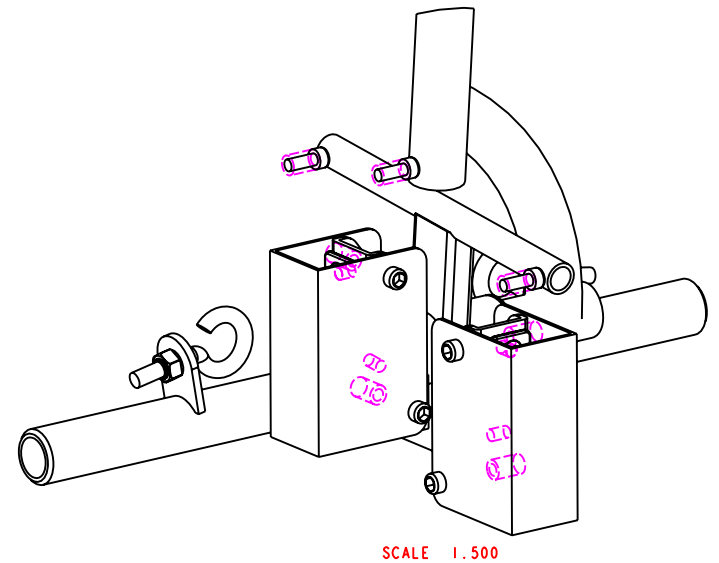
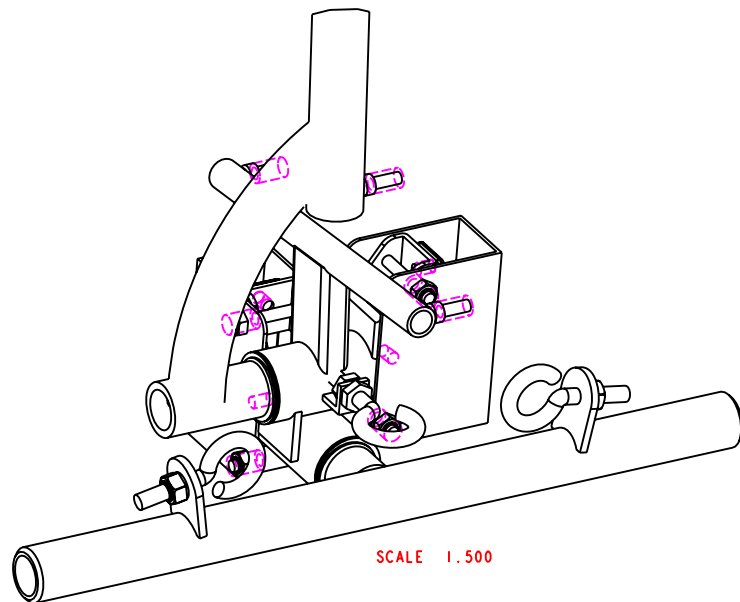
drill 4 holes during assembly for #10 screw
transfer pattern to base frame and tap holes
(transfer using 1/8" bit, then open holes and tap)

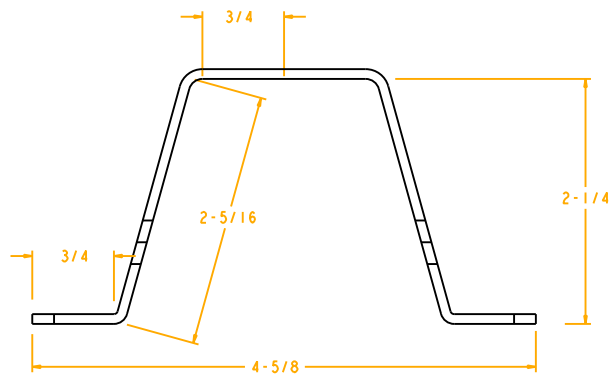


SCALE 1.000
Cyclic Housing Front Plate

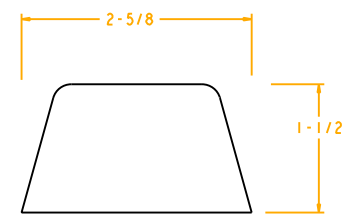
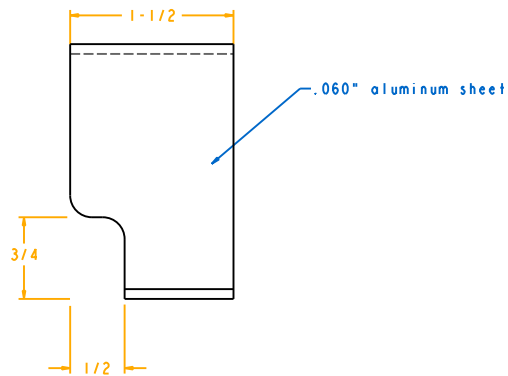


SCALE 1.000

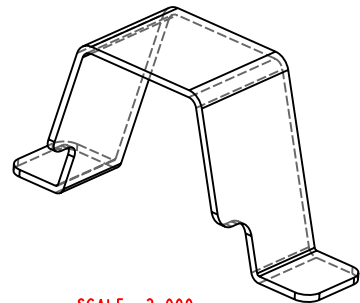
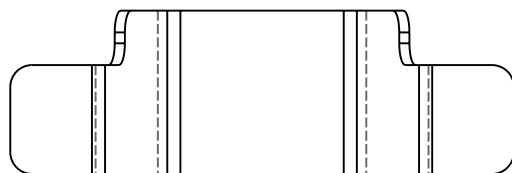




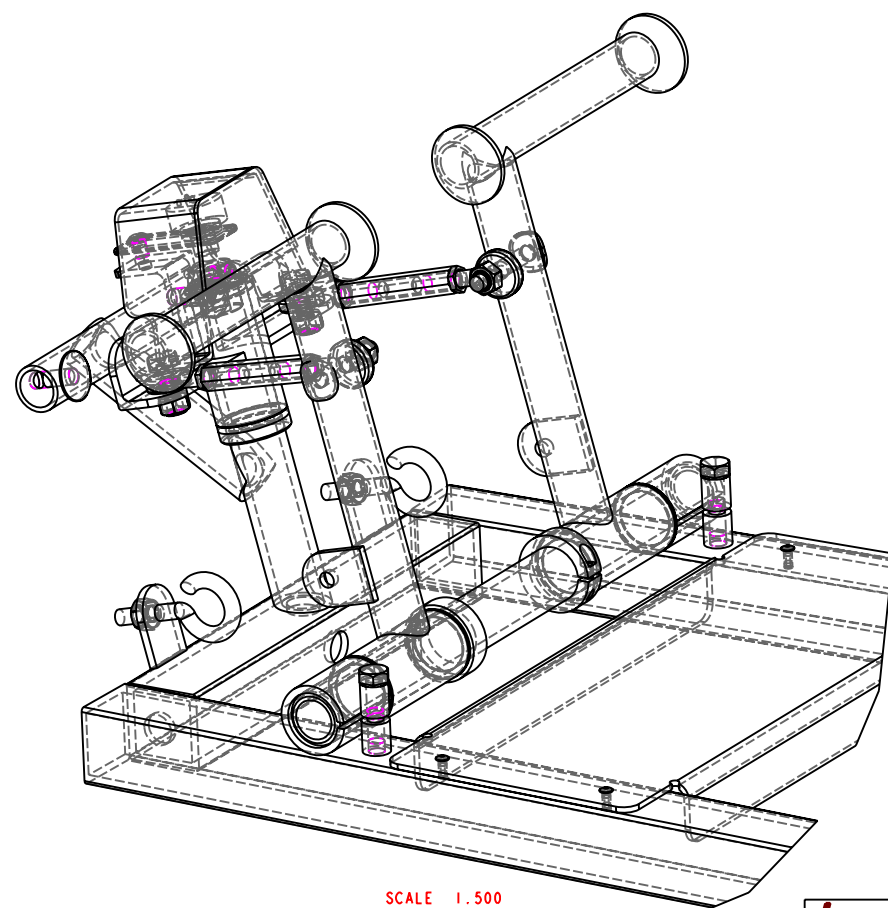
SCALE 2.500
Walking Bar Housing



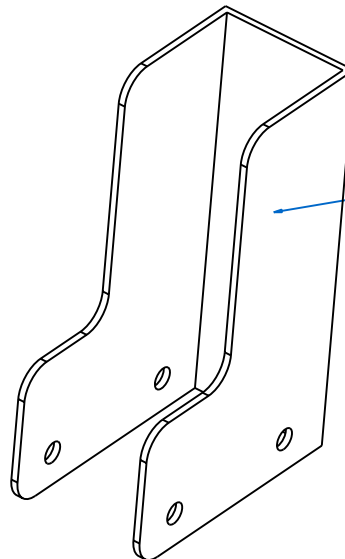
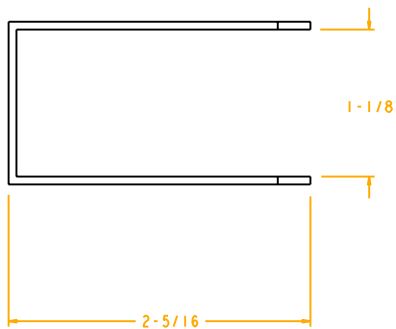
SCALE 2.000
Walking Bar Housing Plate



SCALE 2.000

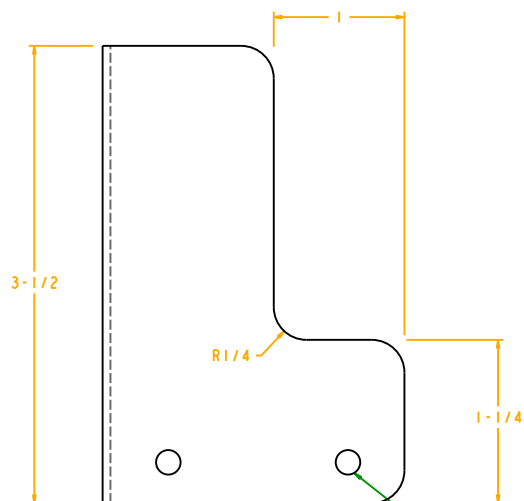


SCALE 1.500



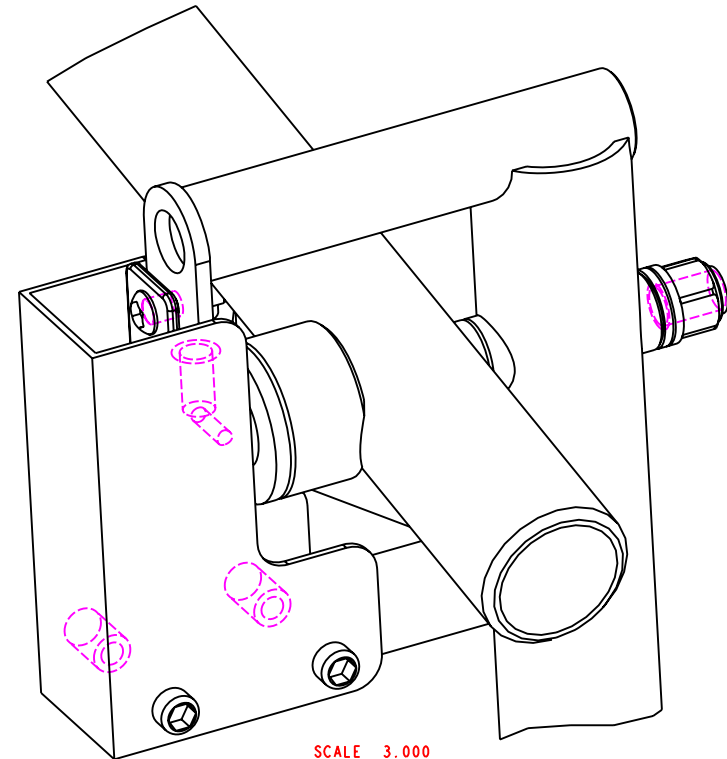
SCALE 3.000

.060" aluminum sheet



SCALE 3.000
collective potentiometer cover

drill for #10 bolt thru



SCALE 3.000

