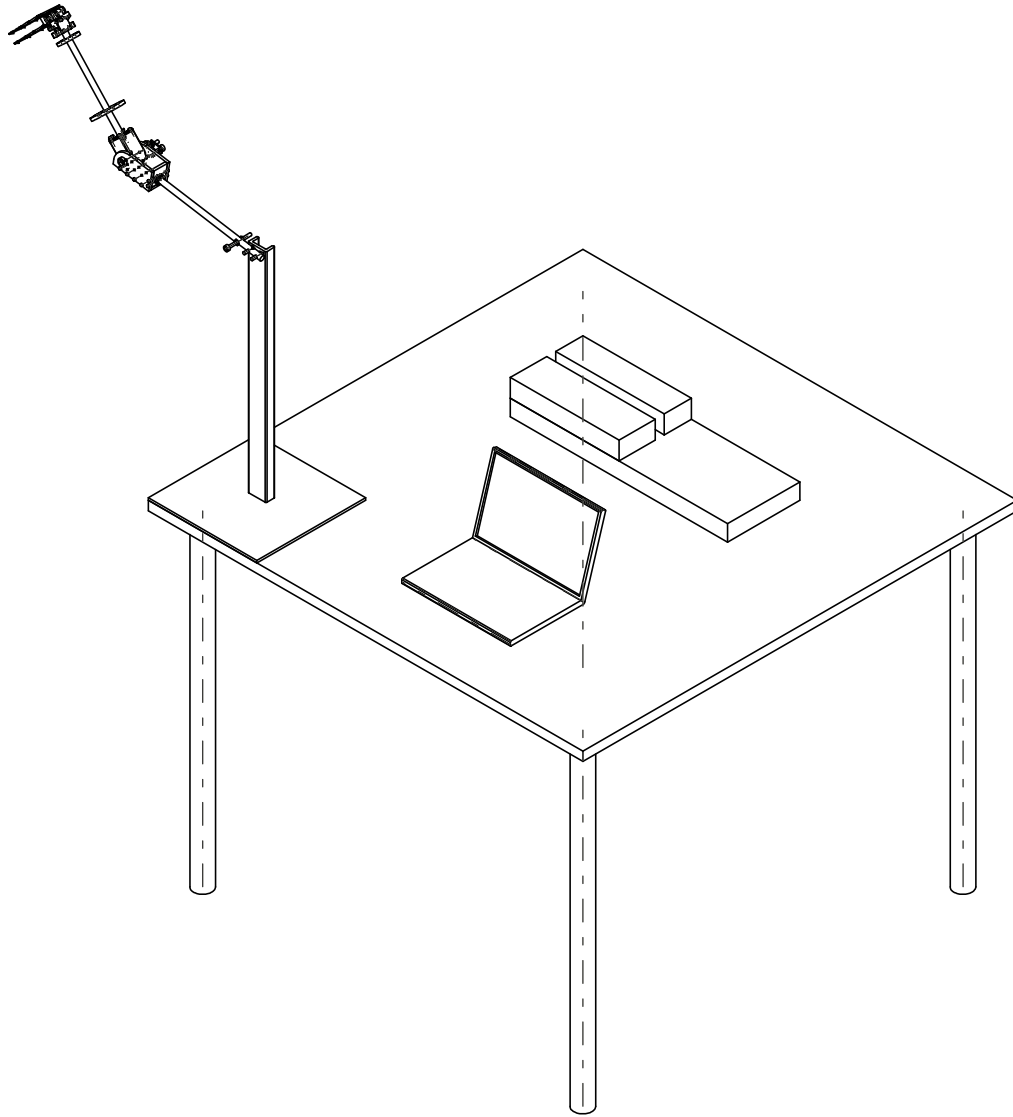


# Revision 3 Drawing Package



Revision 3

TITLE:

P09029

SIZE

**A**

DWG. NO.

REV

SCALE: 1:50

SHEET 1 OF 15

5

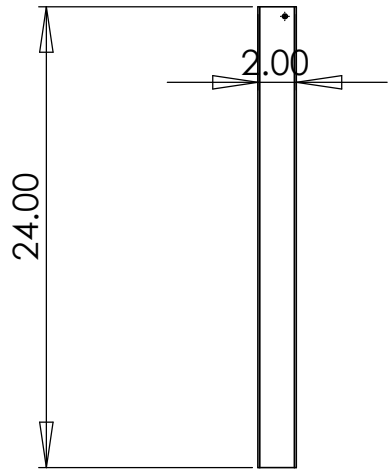
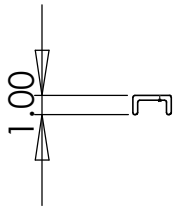
↑

4

2

1

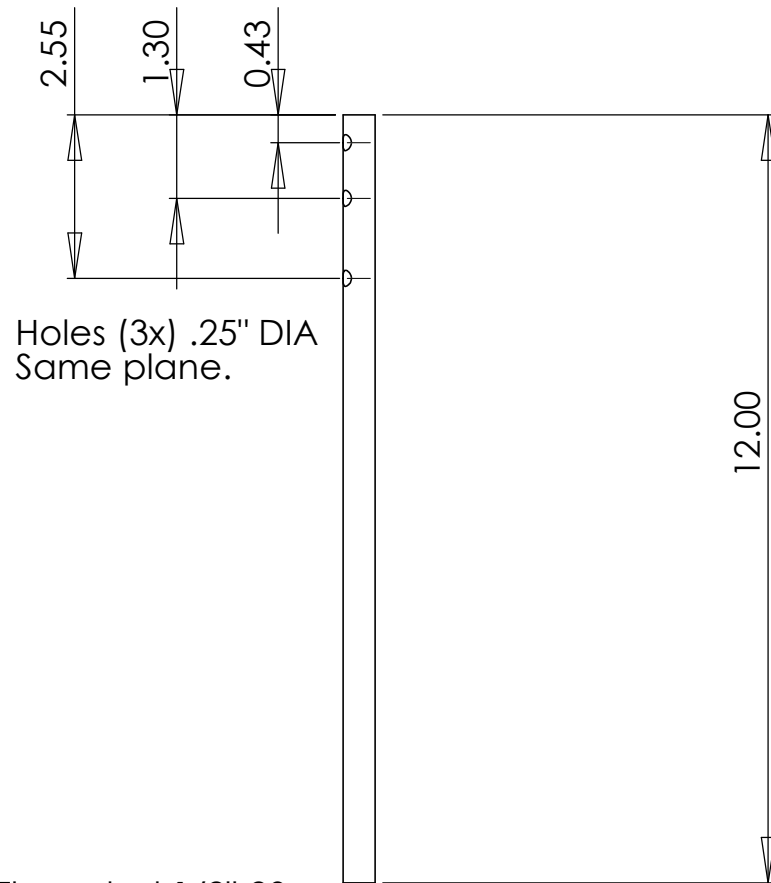
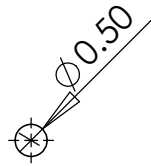
# Revision 3 Drawing Package



This is the base that holds the arm in the air. It's dimensions are a rough estimate. The material is also not important (steel or aluminum will work).

Revision 3		
TITLE: Base Stand		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 1:10		SHEET 2 OF 15

# Revision 3 Drawing Package



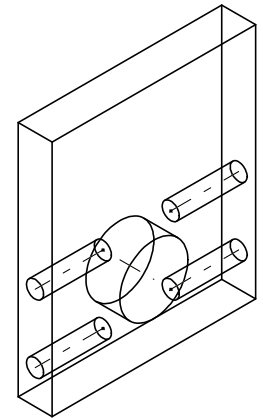
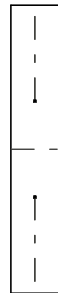
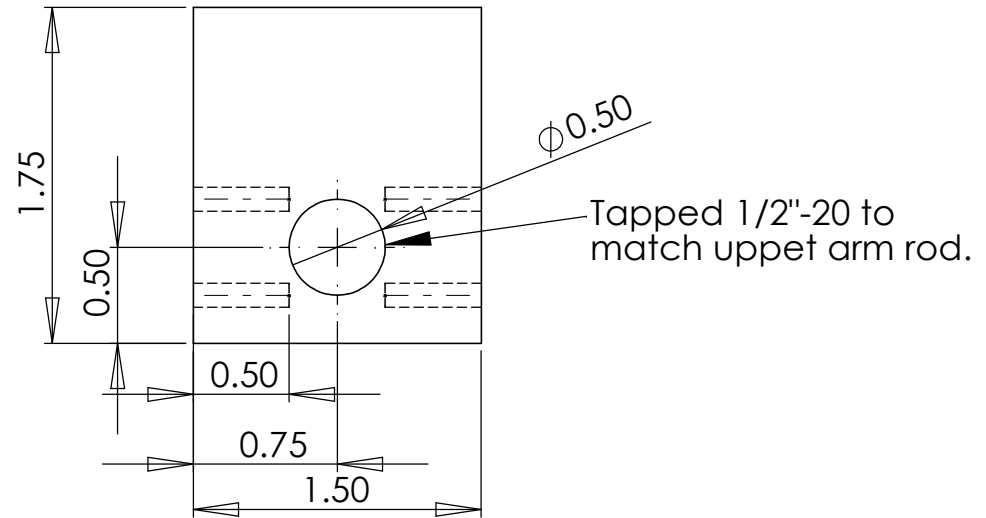
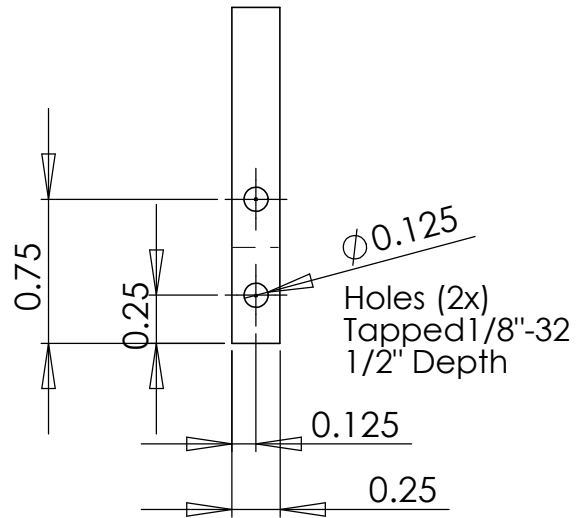
Threaded 1/2"-20  
from the bottom to .75"



This is the upper arm's  
center rod. Because of  
the forces acting on the  
arm, it must be steel.

Revision 3		
TITLE: <b>Upper Arm Rod</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 1:3		SHEET 3 OF 15

# Revision 3 Drawing Package



This 1/4" aluminum plate forms the back of the elbow.

Revision 3

TITLE:

Elbow Back

SIZE

**A**

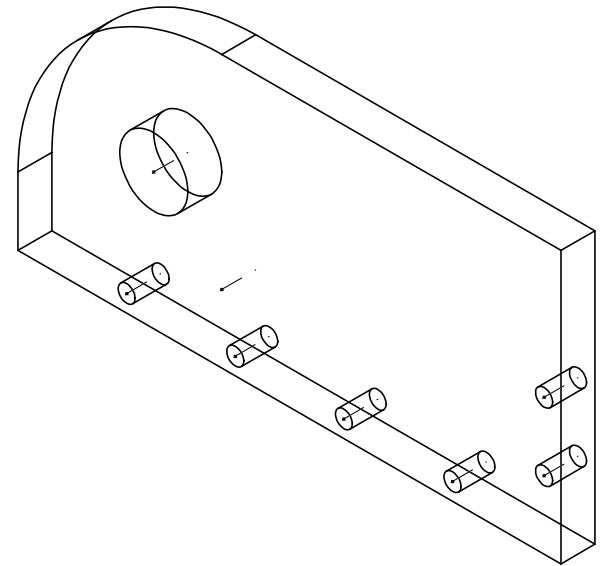
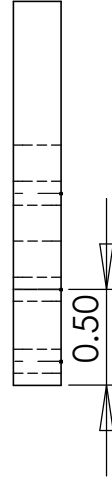
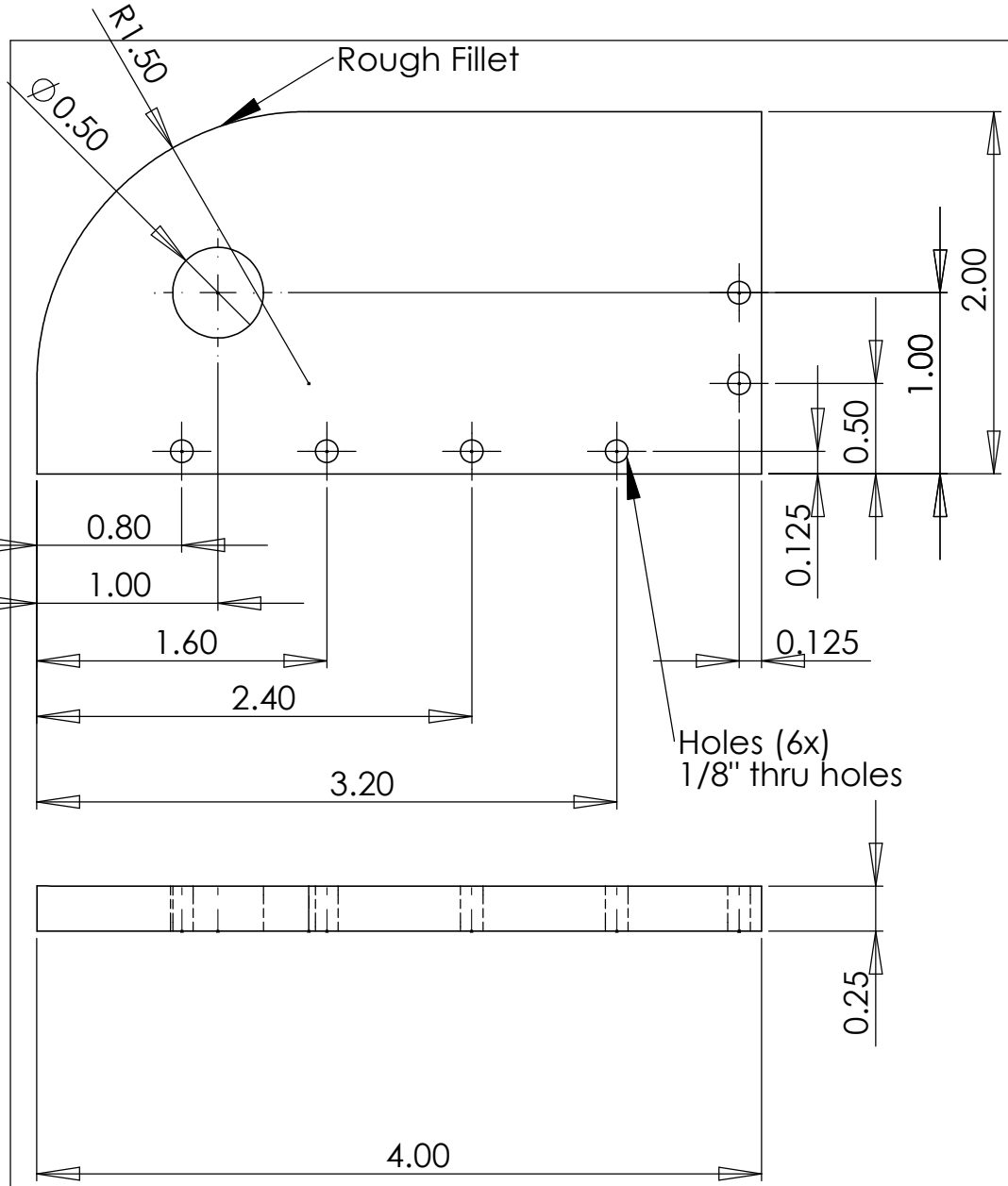
DWG. NO.

REV

SCALE: 1:1

SHEET 4 OF 15

# Revision 3 Drawing Package

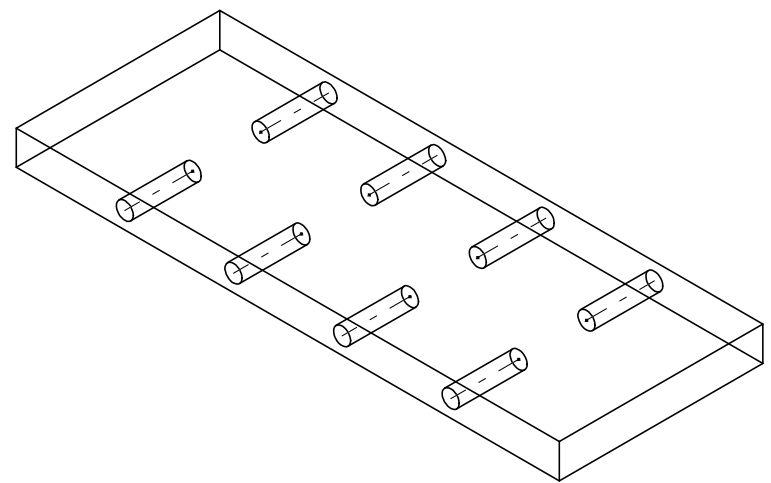
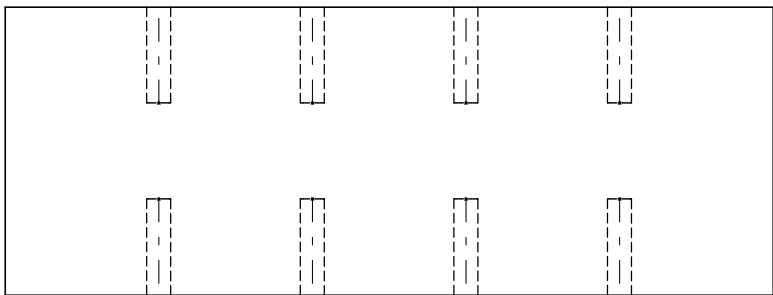
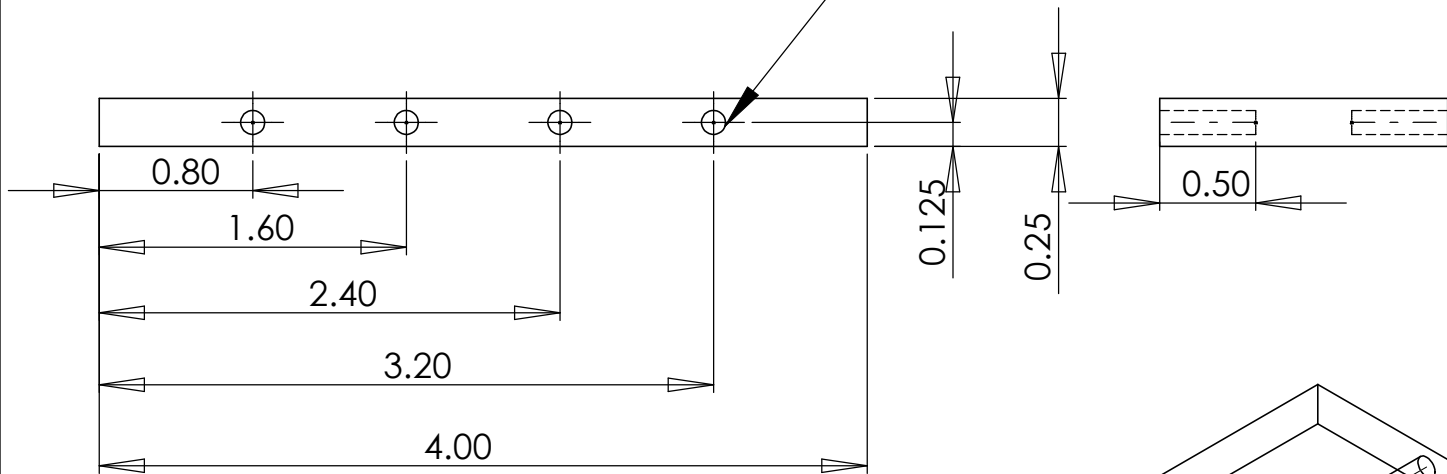


This aluminum part forms the sides of the elbow. Steel is also acceptable.

Revision 3		
TITLE: <b>Elbow Side</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 1:1		SHEET 5 OF 15

# Revision 3 Drawing Package

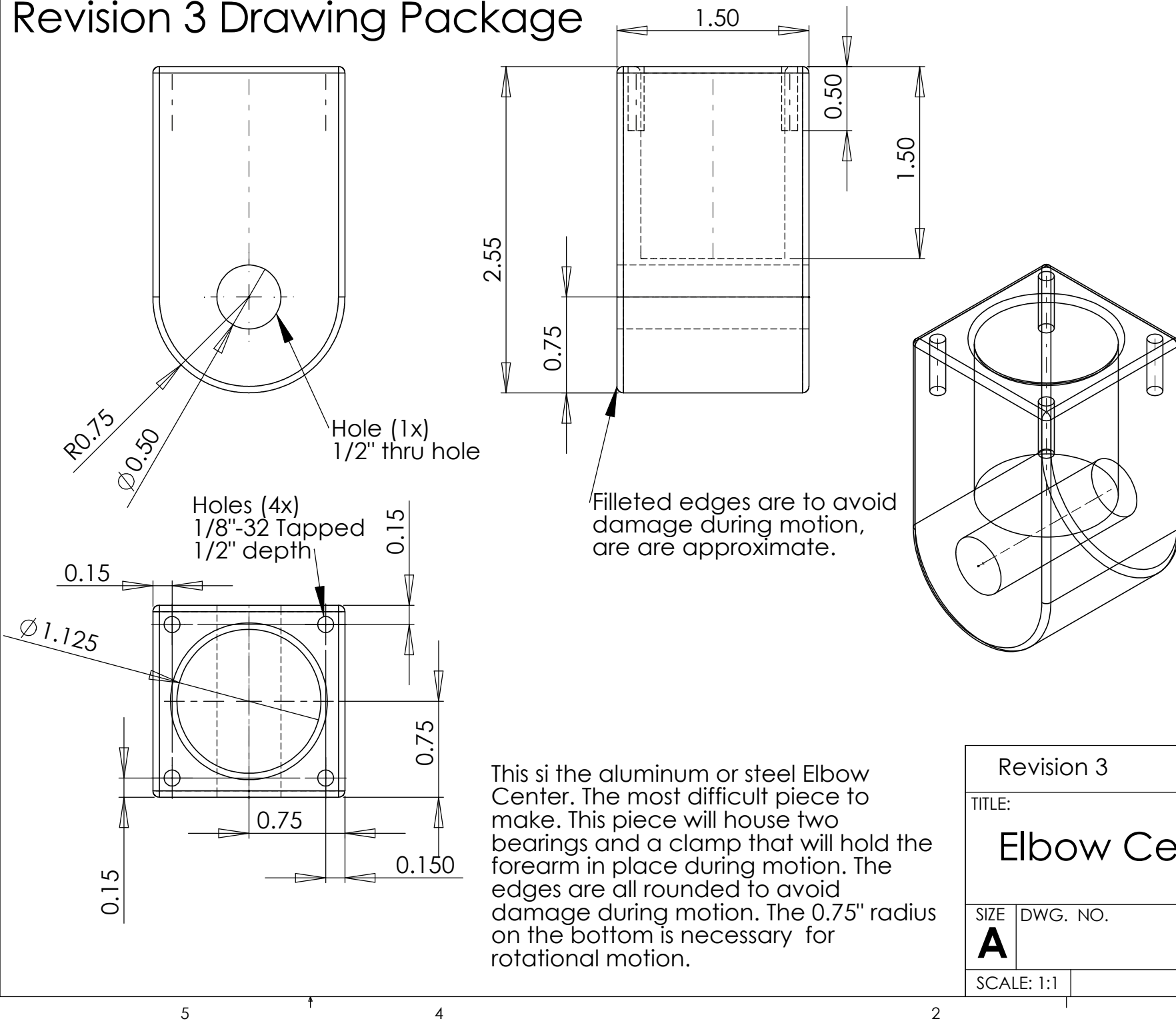
Holes (8x)  
 1/8"-32 Tapped holes  
 approx. 1/2" depth



This aluminum or steel part is the bottom of the elbow, holding the sides together.

Revision 3		
TITLE: <b>Elbow Bottom</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 1:1		SHEET 6 OF 15

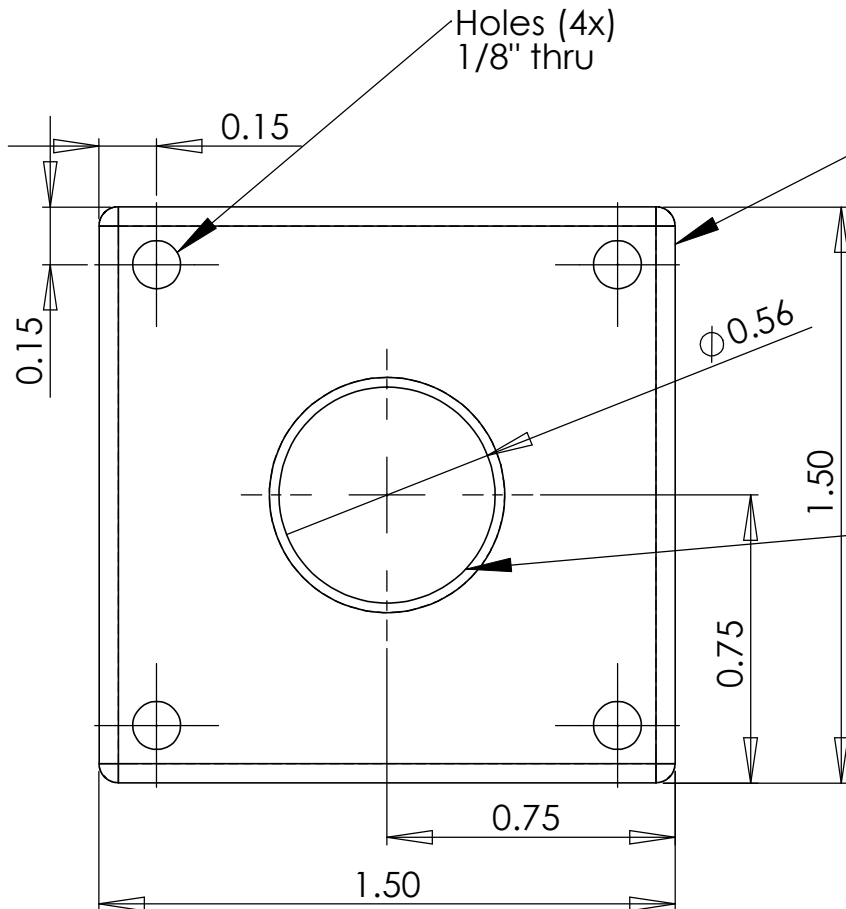
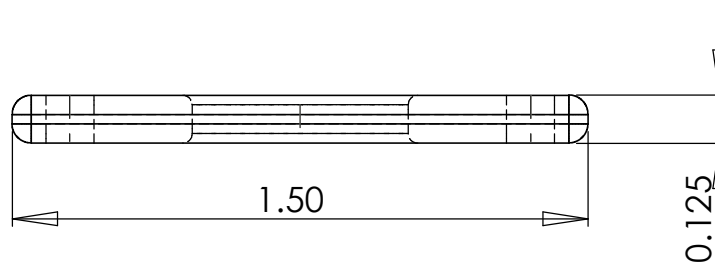
# Revision 3 Drawing Package



This is the aluminum or steel Elbow Center. The most difficult piece to make. This piece will house two bearings and a clamp that will hold the forearm in place during motion. The edges are all rounded to avoid damage during motion. The 0.75" radius on the bottom is necessary for rotational motion.

Revision 3		
TITLE: <b>Elbow Center</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 1:1		SHEET 7 OF 15

# Revision 3 Drawing Package

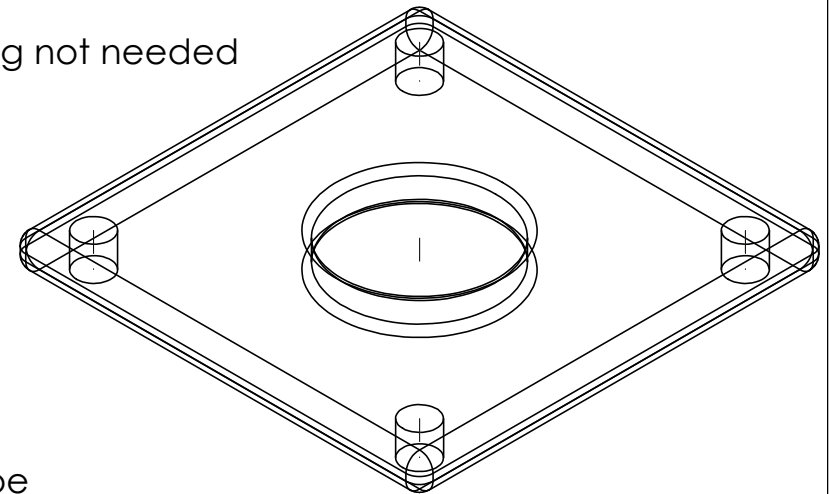


Holes (4x)  
1/8" thru

Edge rounding not needed

Hole (1x)  
.56" (must be  
greater than 1/2")  
Thru

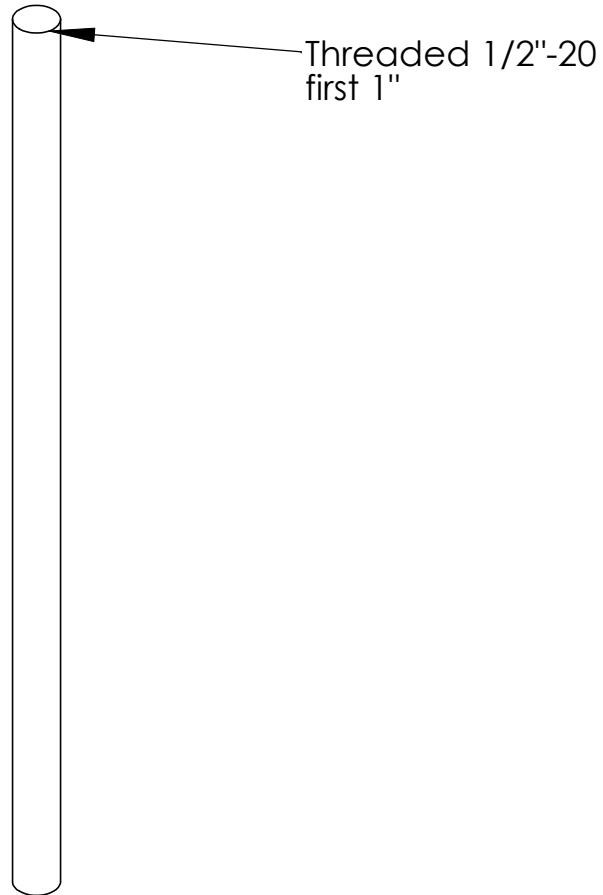
Aluminum or steel  
top for the elbow.



Revision 3		
TITLE: <b>Elbow Top</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 2:1		SHEET 8 OF 15



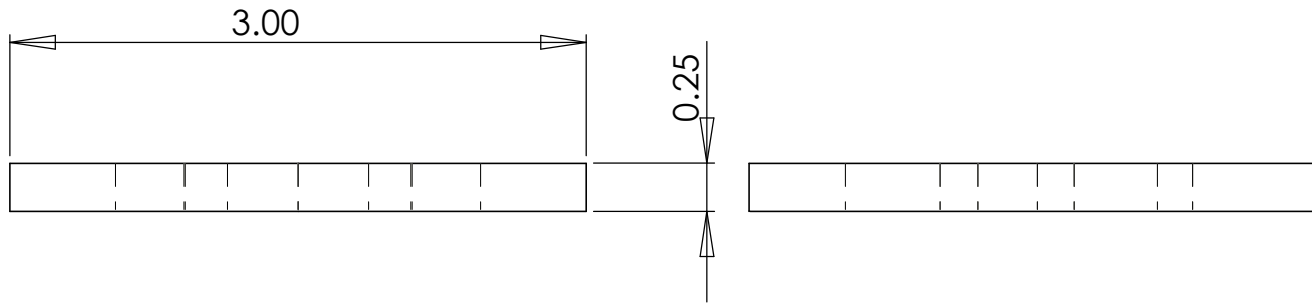
# Revision 3 Drawing Package



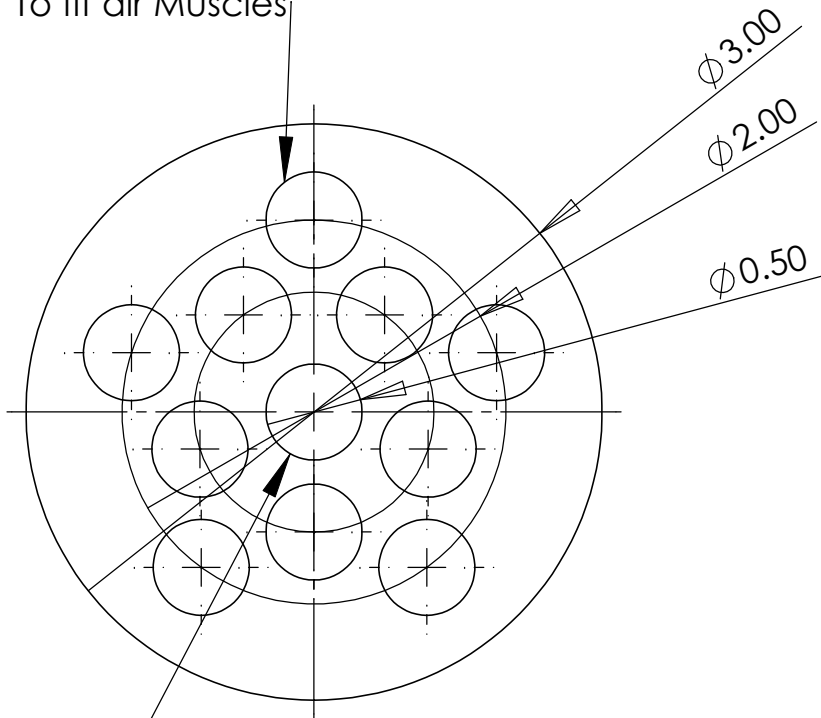
This 1/2" steel rod is the forearm piece. Steel must be used.

Revision 3		
TITLE: <b>Forearm</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 1:5		SHEET 9 OF 15

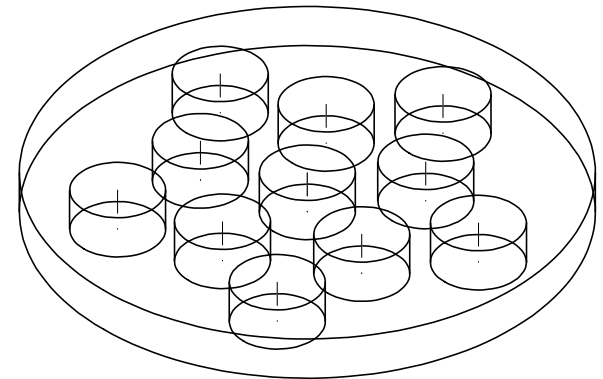
# Revision 3 Drawing Package



Holes (10x)  
To fit air Muscles



Hole (1x)  
1/2" thru hold for the forearm



This steel or aluminum piece holds the base of the muscles that activate this wrist and fingers. It will need to be updated based on how the muscles attach.

Revision 3

TITLE:

**Muscle Holder 1**

SIZE

**A**

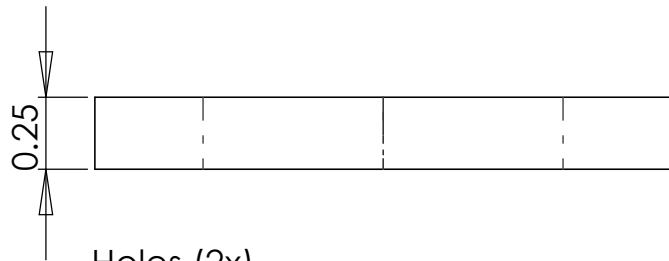
DWG. NO.

REV

SCALE: 1:1

SHEET 10 OF 15

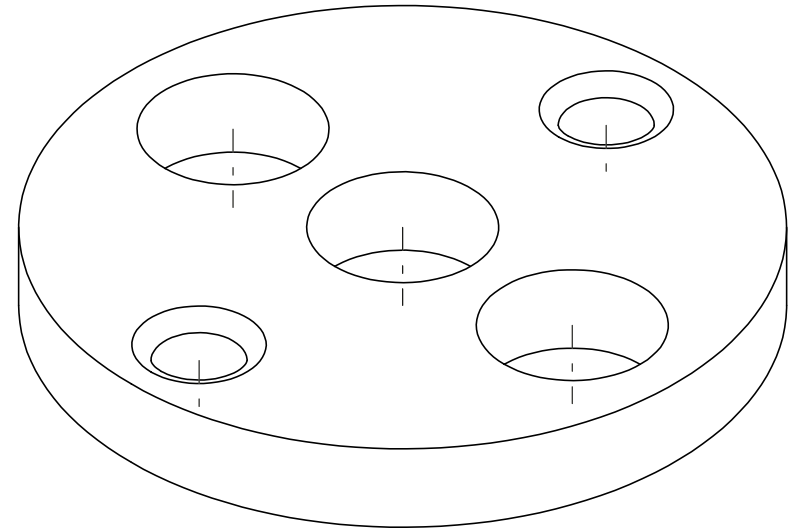
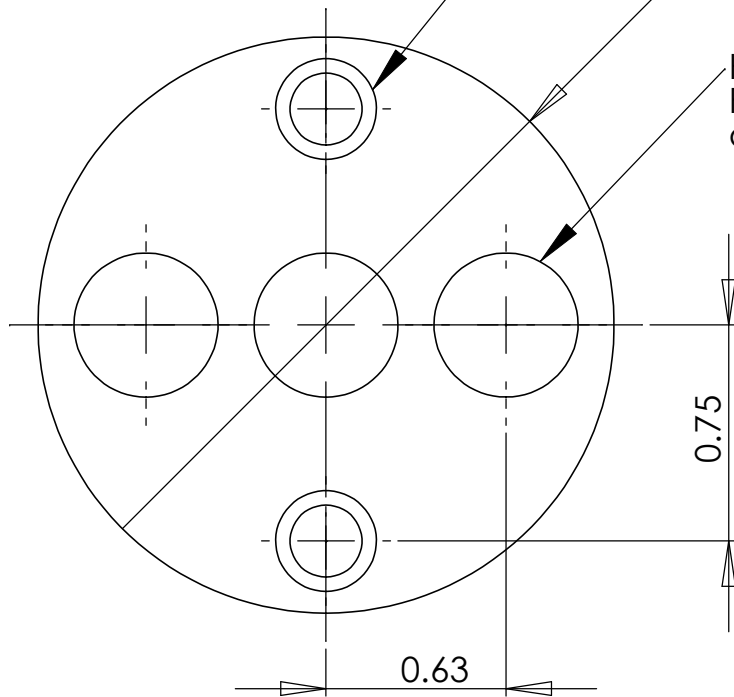
# Revision 3 Drawing Package



Holes (2x)  
1/4" thru  
Fillet to prevent cord damage

$\phi 2.00$

Holes (2x)  
For mounting  
air muscles



This muscle holder holes the forearm actuating muscles. There is also a thru hold for cables to pass through

Revision 3

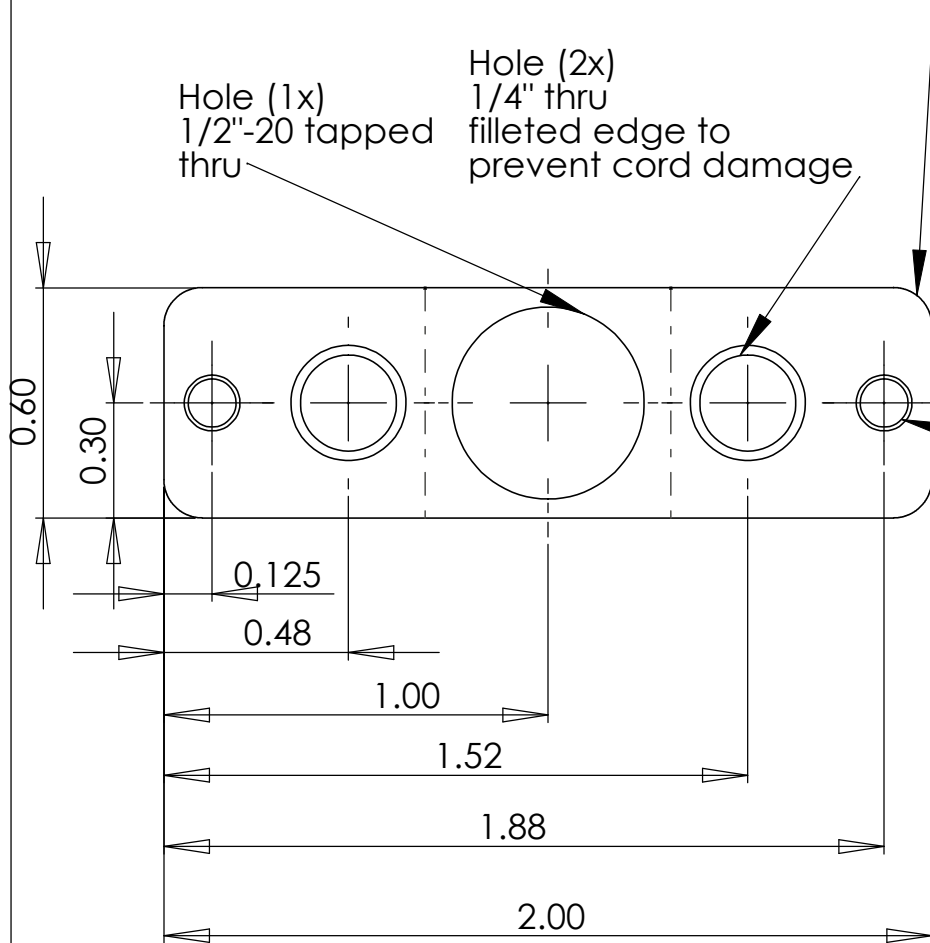
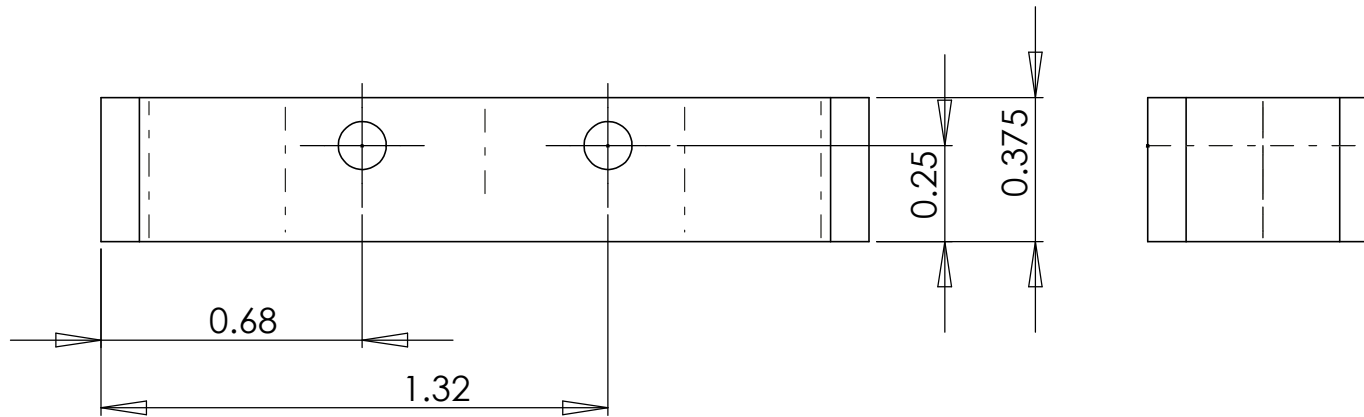
TITLE:

Muscle Holder 2

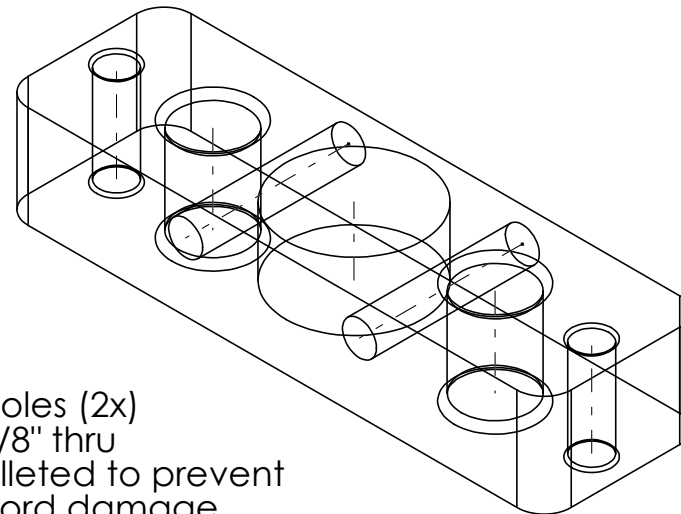
SIZE <b>A</b>	DWG. NO.	REV
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SCALE: 1:1 | SHEET 11 OF 15

# Revision 3 Drawing Package



Approx. Fillet



Holes (2x)  
1/8" thru  
Filleted to prevent cord damage

Steel or aluminum wrist base that supports the actions for the wrist.

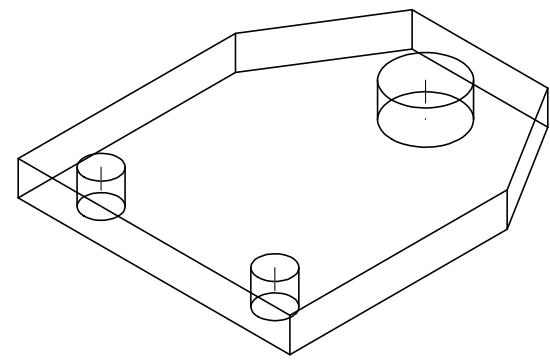
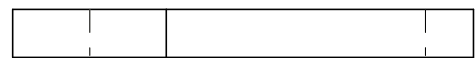
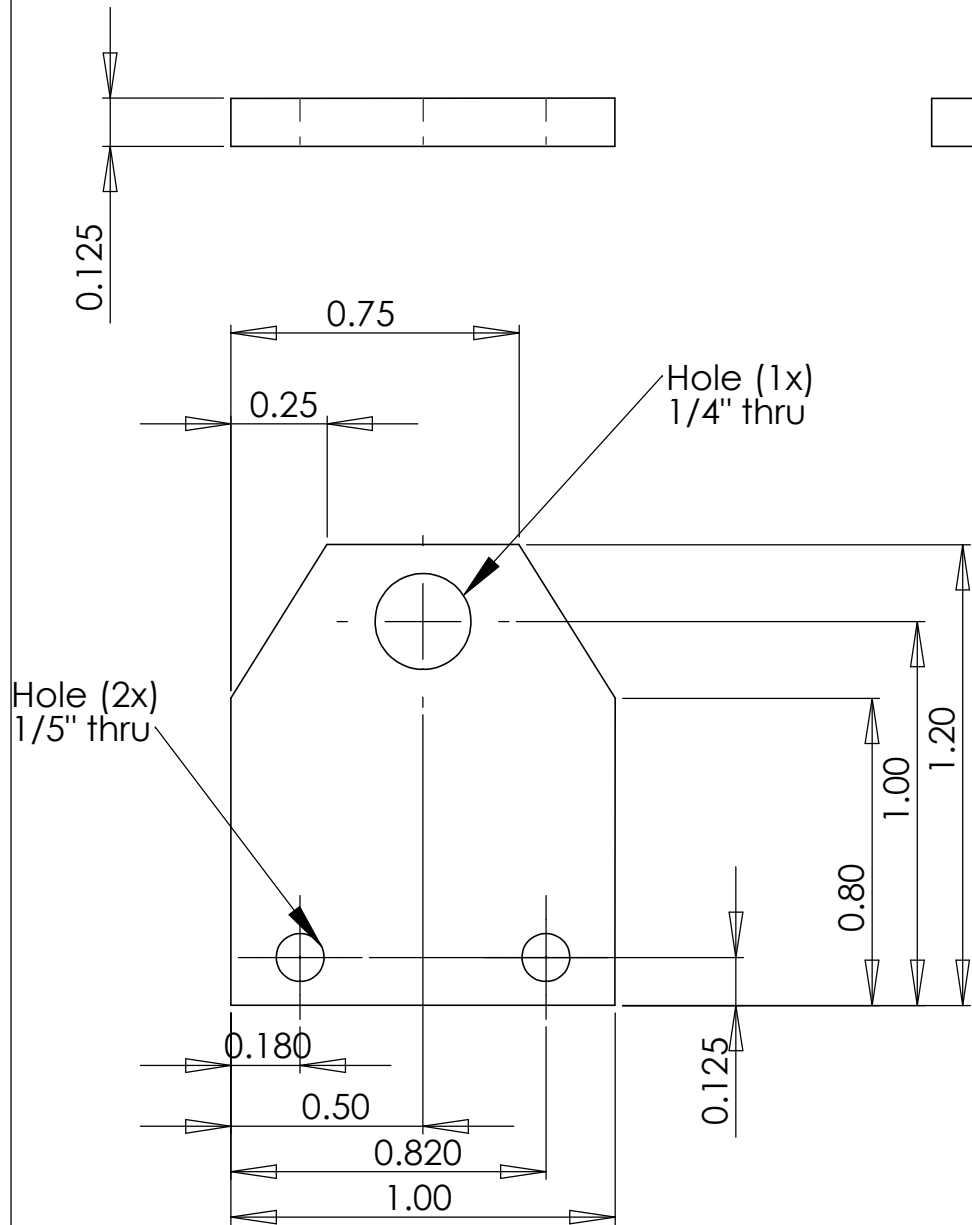
Revision 3

TITLE:

Wrist Base

SIZE	DWG. NO.	REV
<b>A</b>		
SCALE: 2:1		SHEET 12 OF 15

# Revision 3 Drawing Package

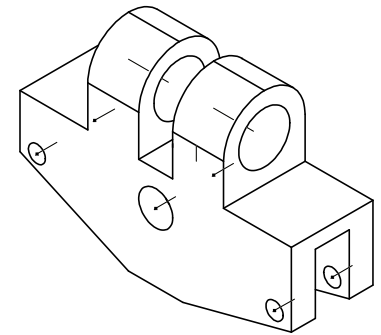
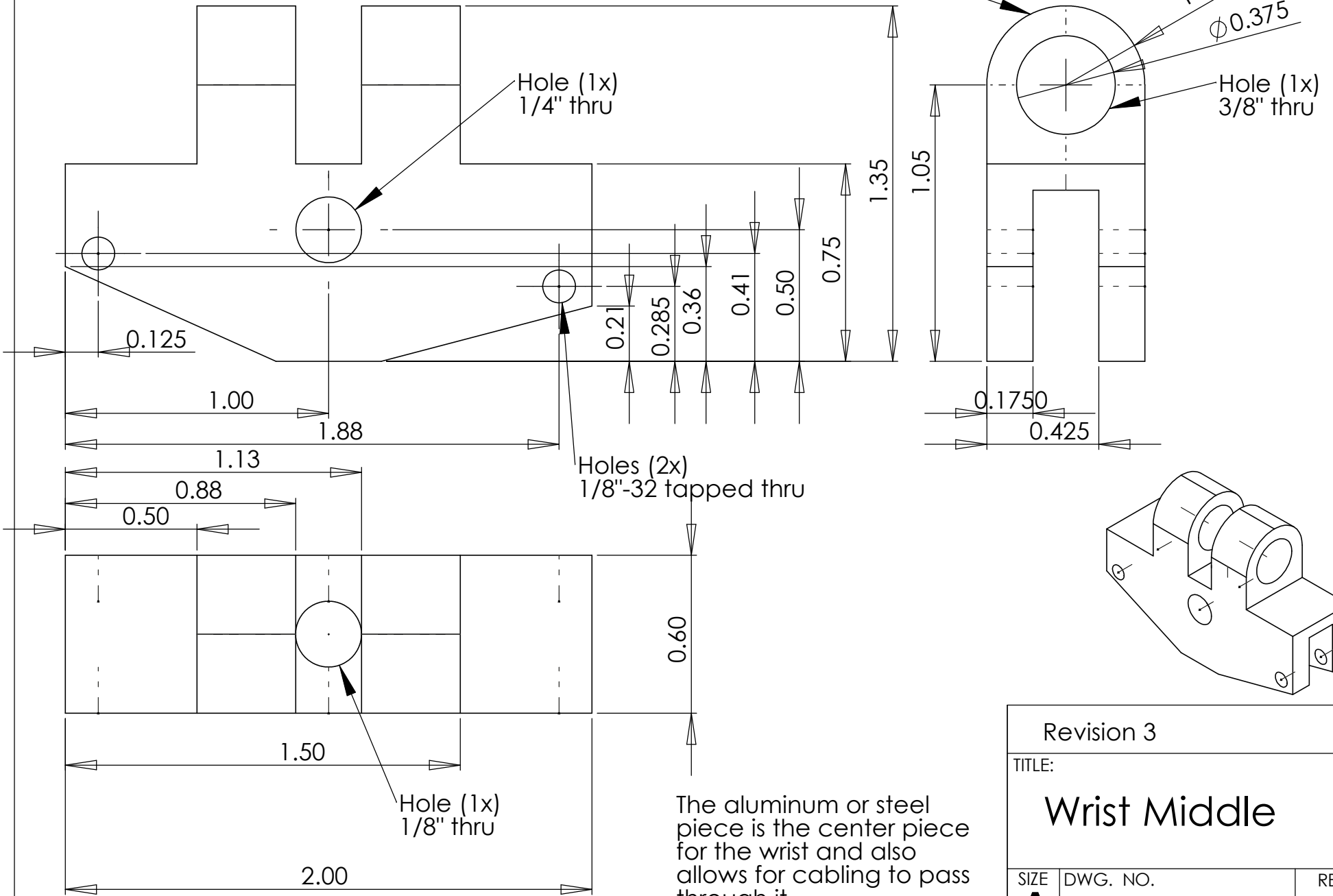


This aluminum or steel piece is the side of the wrist.

Revision 3		
TITLE: <b>Wrist Side</b>		
SIZE <b>A</b>	DWG. NO.	REV
SCALE: 2:1		SHEET 13 OF 15

# Revision 3 Drawing Package

Fillet necessary for motion clearance



The aluminum or steel piece is the center piece for the wrist and also allows for cabling to pass through it.

Revision 3

TITLE:

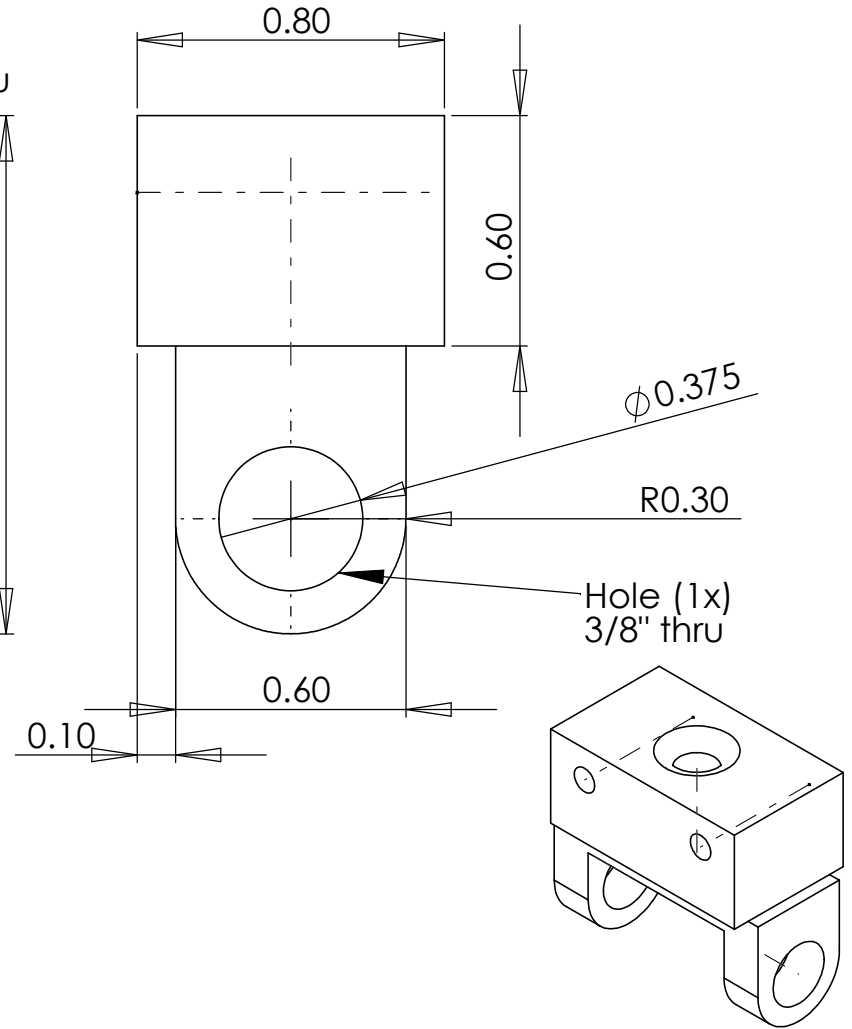
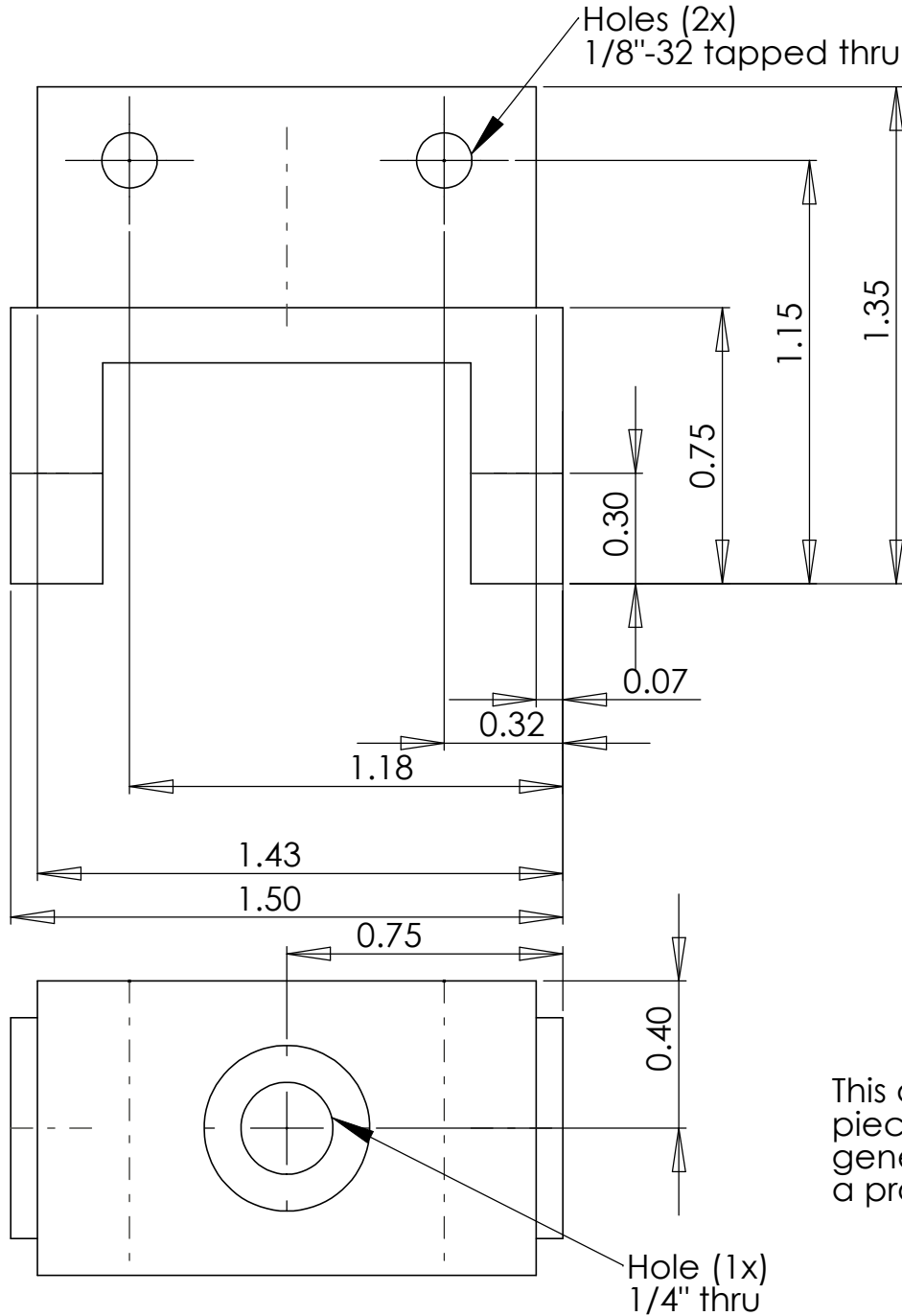
Wrist Middle

SIZE	DWG. NO.	REV
<b>A</b>		

SCALE: 2:1

SHEET 14 OF 15

# Revision 3 Drawing Package



This aluminum or steel piece connects this generations prototype to a prototype from P08024.

Revision 3

TITLE:

Wrist Top

SIZE	DWG. NO.	REV
<b>A</b>		
SCALE: 2:1		SHEET 15 OF 15