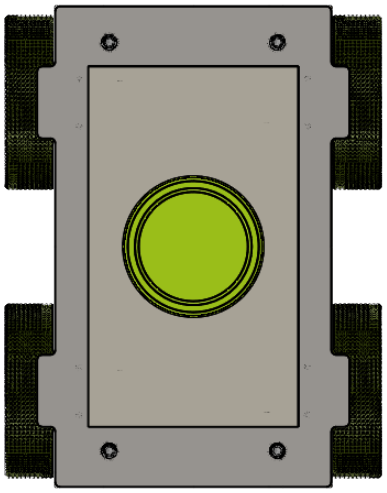
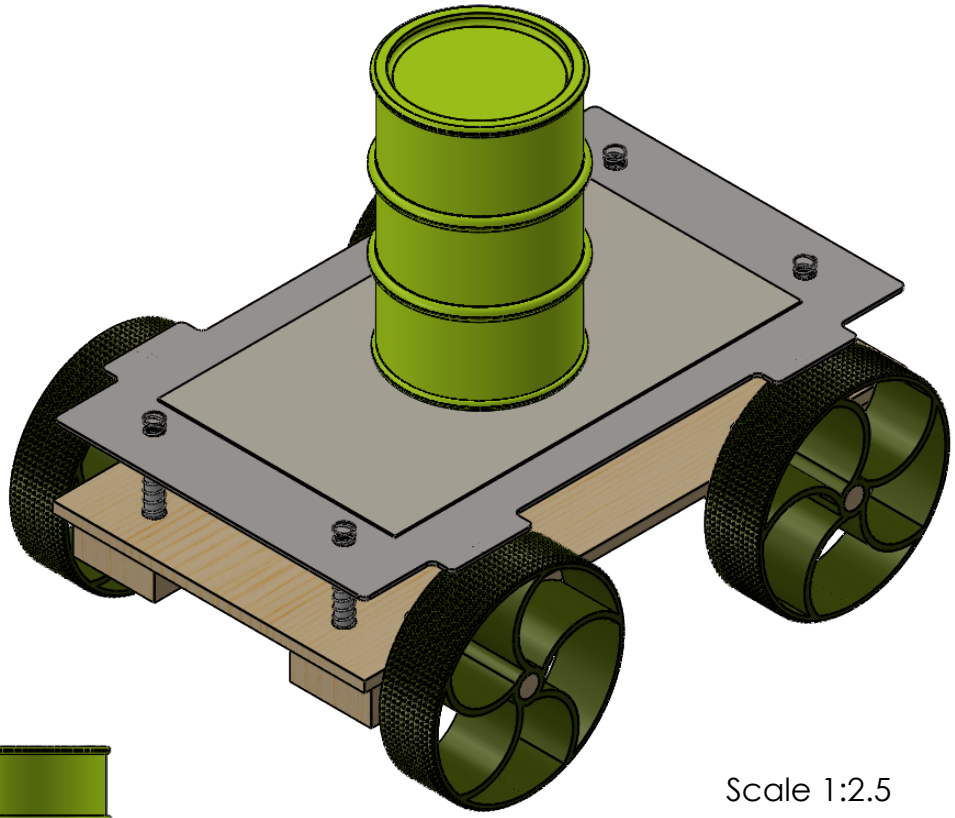
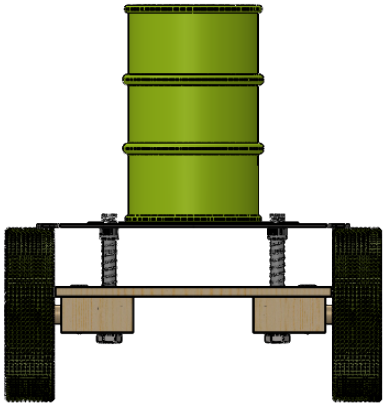


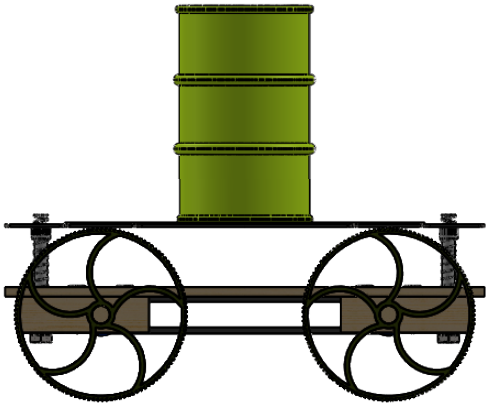
TOP



Scale 1:2.5



FRONT



SIDE

DEBURR AND BREAK SHARP EDGES

TITLE:

Compliant Trailer

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

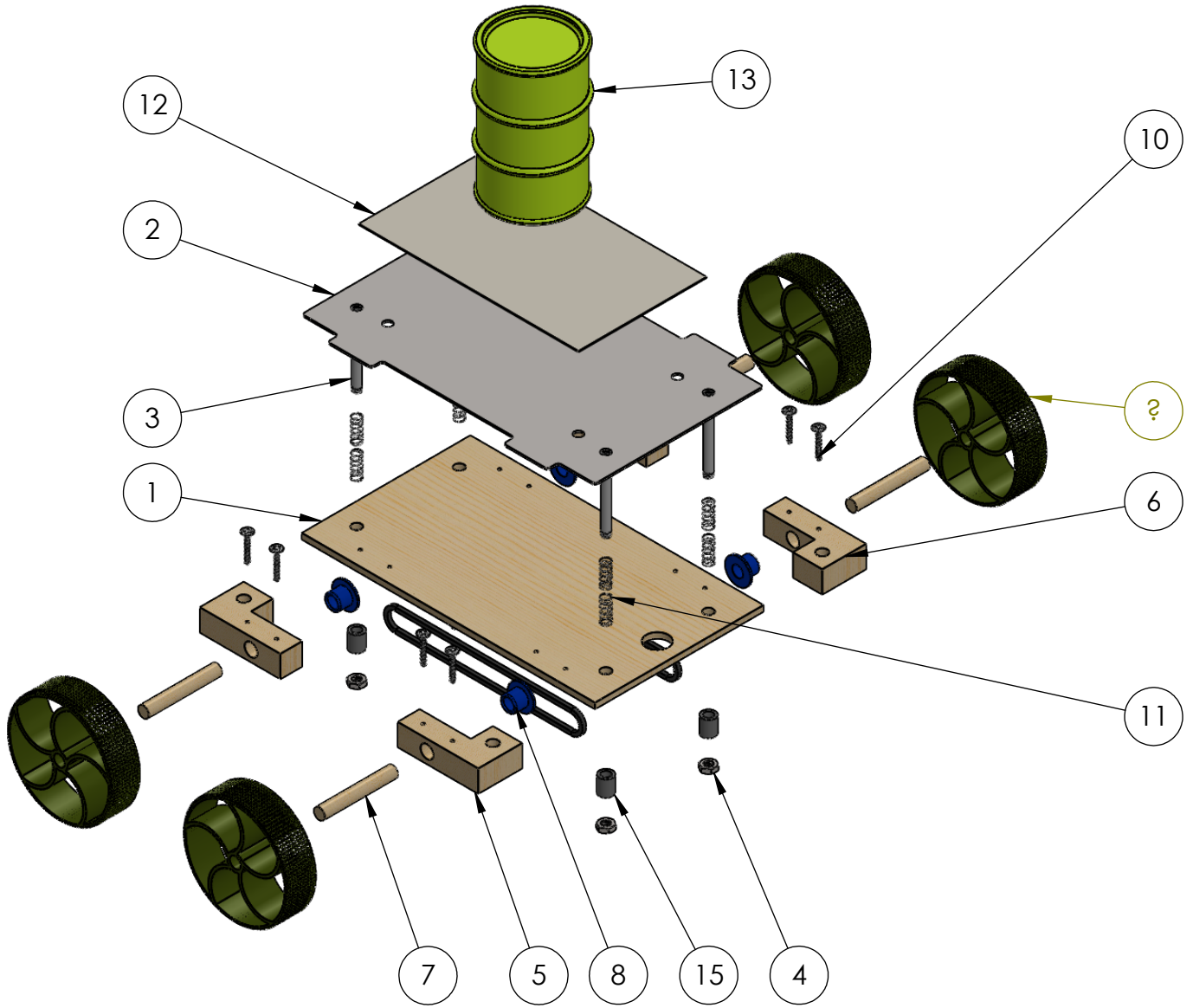
MATERIAL:

A4

SCALE:1:4

SHEET 1 OF 1

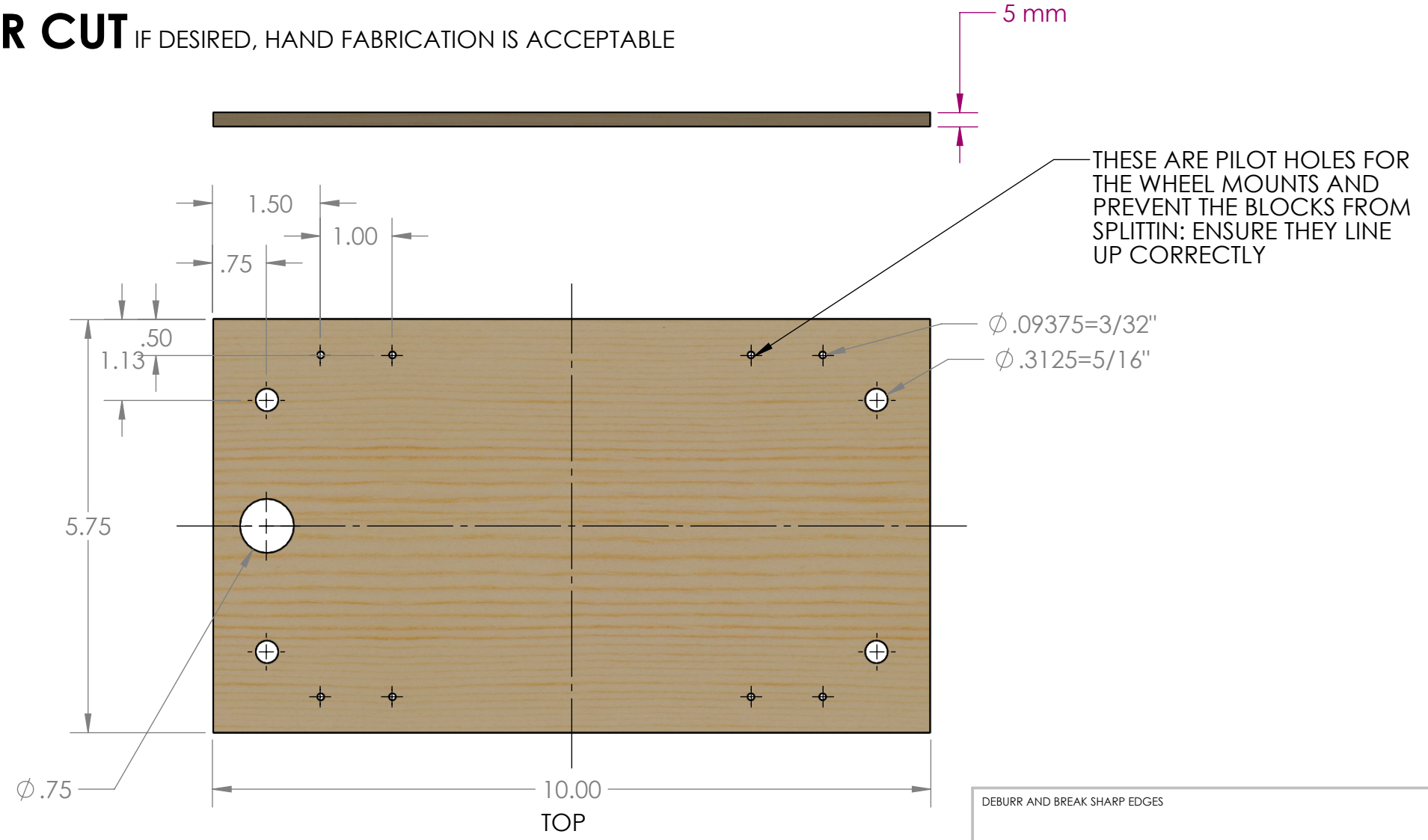
ITEM NO.	PART NUMBER	QTY.
1	Wood Base Plate	1
2	Suspension Plate	1
3	1/4"-20, 3" Long, Socket Head Screw, 1" Threaded, shortened	4
4	1/4"-20, Thin Hex Nut	4
5	Wheel Mount Block A	2
6	Wheel Mount Block B	2
7	Axle	4
8	Axle Stop	4
9	Compliant Wheel	4
10	Wood Screw	8
11	0.75" Long, 0.26" ID Compression Spring	8
12	Sandpaper 60 Grit	1
13	287_Payload	1
14	RubberBand	2
15	BoltStandoff	4



TITLE: BILL OF MATERIALS | A4

SCALE:1:4 | SHEET 1 OF 1

LASER CUT IF DESIRED, HAND FABRICATION IS ACCEPTABLE



DEBURR AND BREAK SHARP EDGES

TITLE:

WOOD BASE PLATE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

MATERIAL:

5MM WOOD UNDERLAYMENT

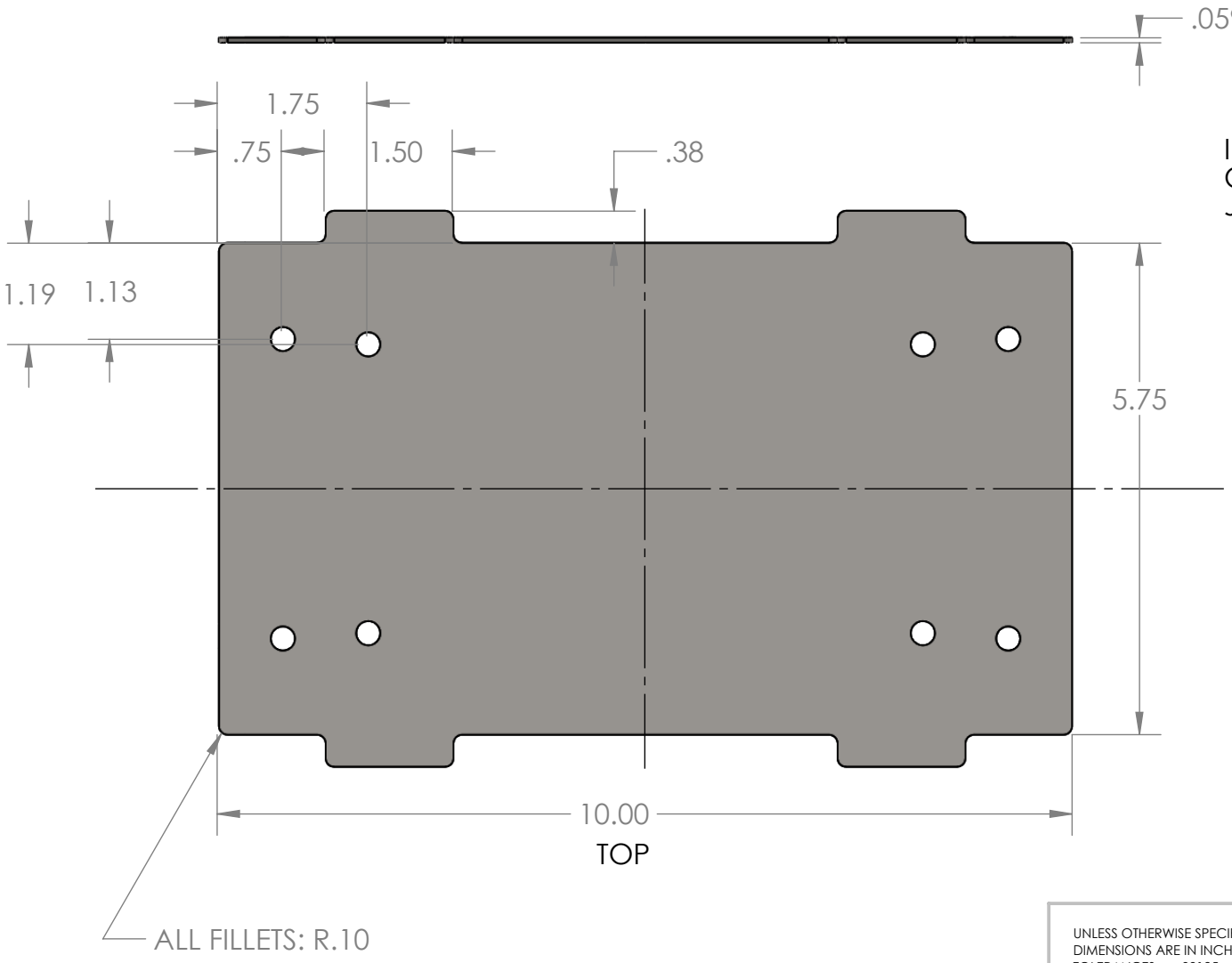
A4

SCALE:1:2

SHEET 1 OF 1

PLASMA CUT, HAND FABRICATION ACCEPTABLE

IF PLASMA CUTTING ENSURE LEAD INS ARE INSIDE HOLES OR OUTISDE PART



IF MODIFYING EXISTING PART,
CUT 4 1.5X.375 BITS OF 16GA STEEL AND JUST BUTT WELD THEM ON

DEBURR AND BREAK SHARP EDGES

TITLE: SUSPENSION PLATE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

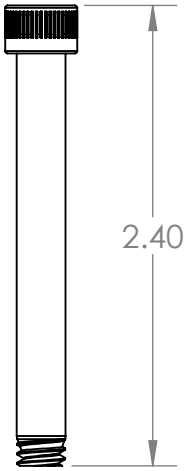
MATERIAL: MILD STEEL

A4

SCALE:1:2

SHEET 1 OF 1

THIS IS CHOPPED OFF 1.4-20 SOCKET HEAD BOLT. THIESE BOLTS ARE THE POSTS THAT HOLD UP THE SUSPENSION PLATE AND WILL BE WELDED TO IT. THEY WILL HAVE NUTS ON THE BOTTOM USED TO ADJUST THE HEIGHT OF THE PLATE. IF FULLY THREADED BOLTS WERE AVALIABLE THEY WOULD BE USED AND THE BOLT STANDOFFS WOULD BE UNNESSACARY. THE LENGTH CHOPPED TO SHOULD BE JUST ENOUGH SO THAT THERE ARE ENOUGH THREADS TO PUT A NUT ON IT AND BRING THE SUSPENSION PLATE ALMOST INTO CONTACT WTIH THE WHEELS.



DEBURR AND BREAK SHARP EDGES

TITLE:

MODIFIED BOLT

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

MATERIAL:

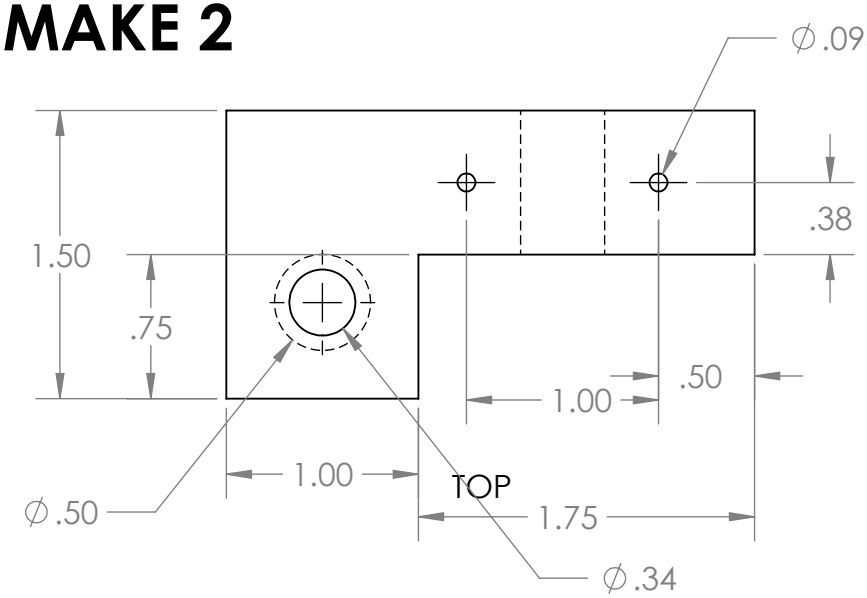
Alloy Steel

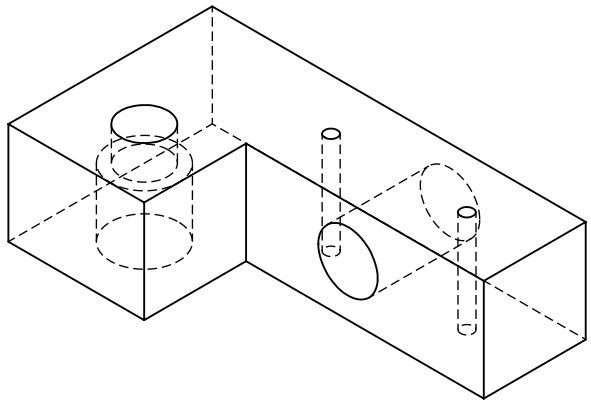
A4

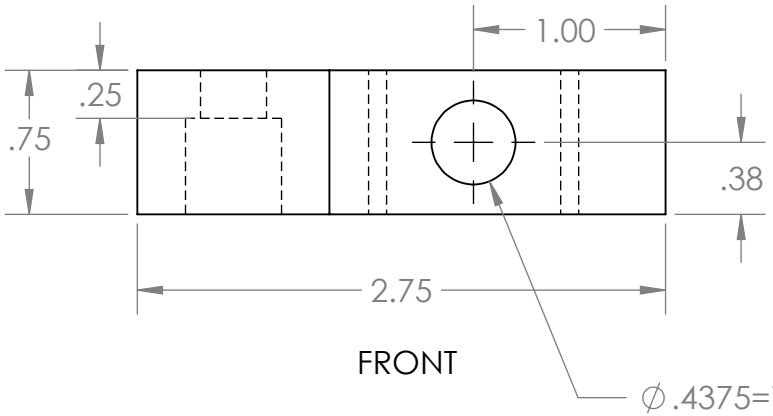
SCALE:1:1

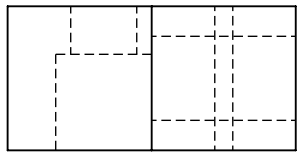
SHEET 1 OF 1

MAKE 2









SIDE

DEBURR AND BREAK SHARP EDGES

TITLE:

WHEEL MOUNT BLOCK A

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

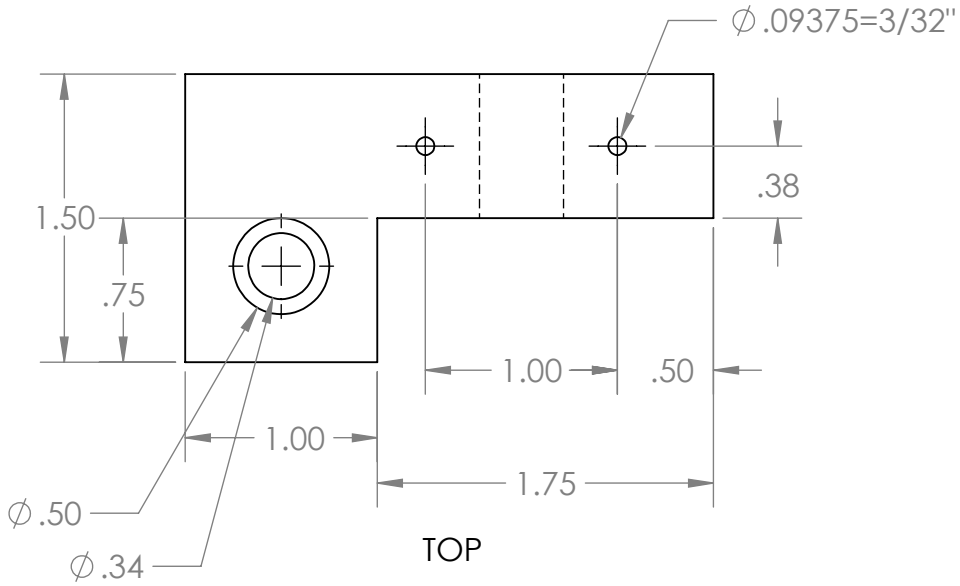
MATERIAL: SOFT WOOD

A4

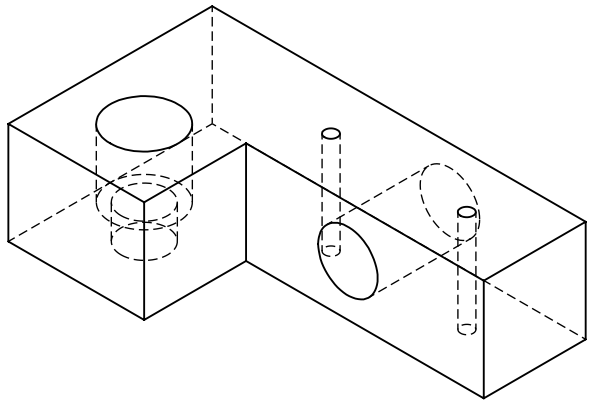
SCALE:1:1

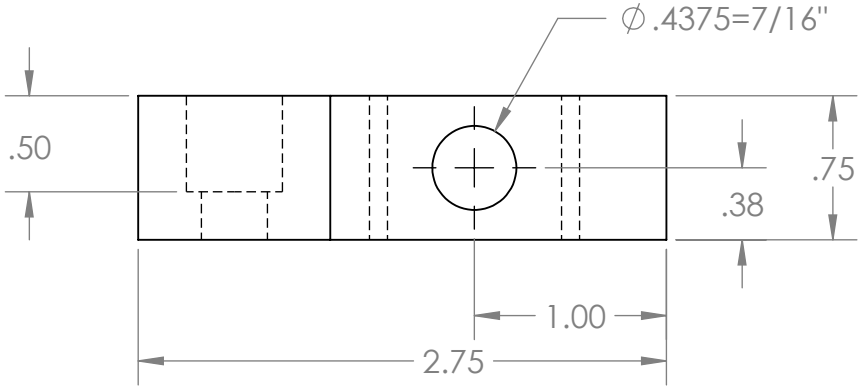
SHEET 1 OF 1

MAKE 2

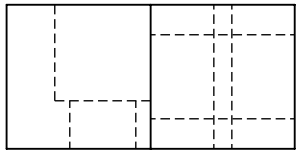


TOP





FRONT



SIDE

DEBURR AND BREAK SHARP EDGES

TITLE:
WHEEL MOUNT BLOCK B

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

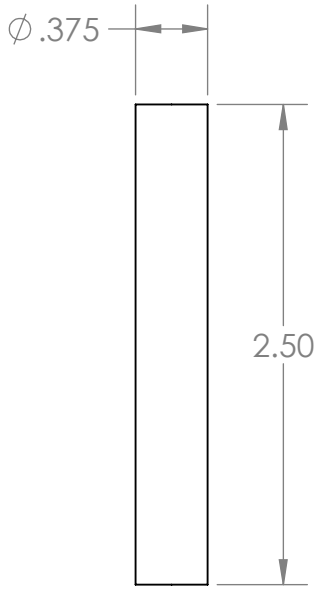
MATERIAL:
SOFT WOOD

A4

SCALE:1:1

SHEET 1 OF 1

MAKE 4



DEBURR AND BREAK SHARP EDGES

TITLE:
AXLE

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

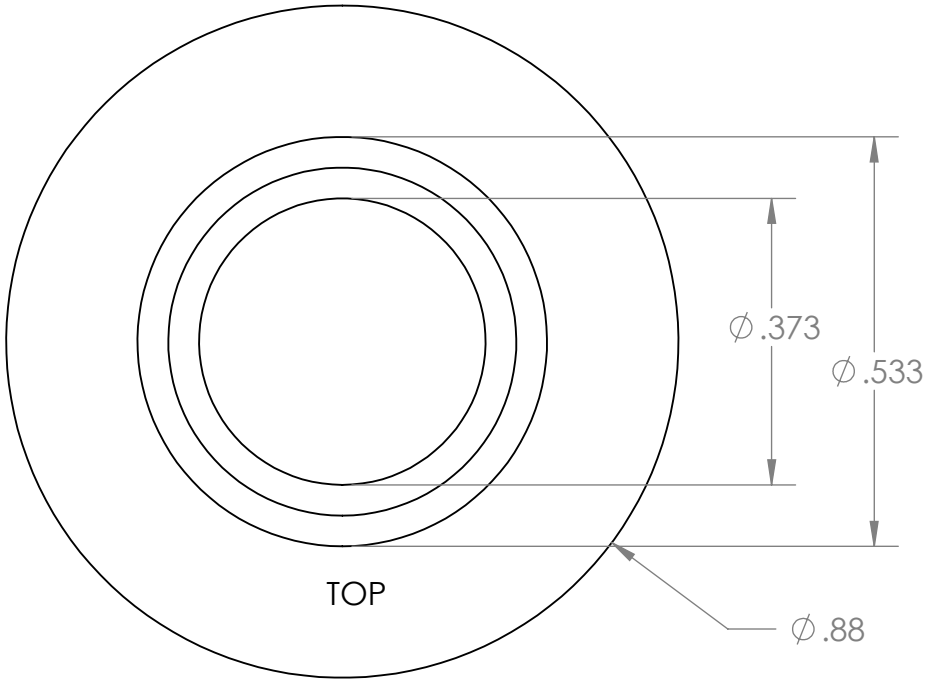
MATERIAL:
WOOD DOWL

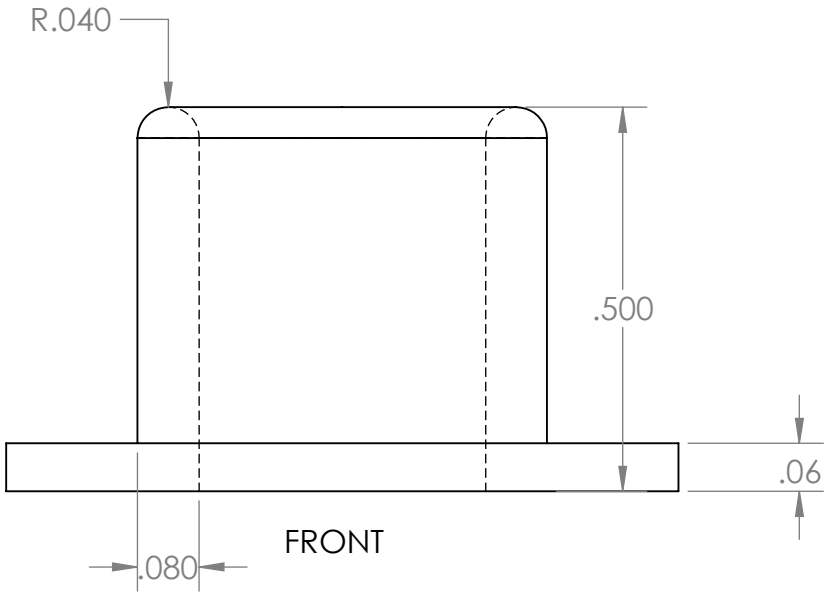
A4

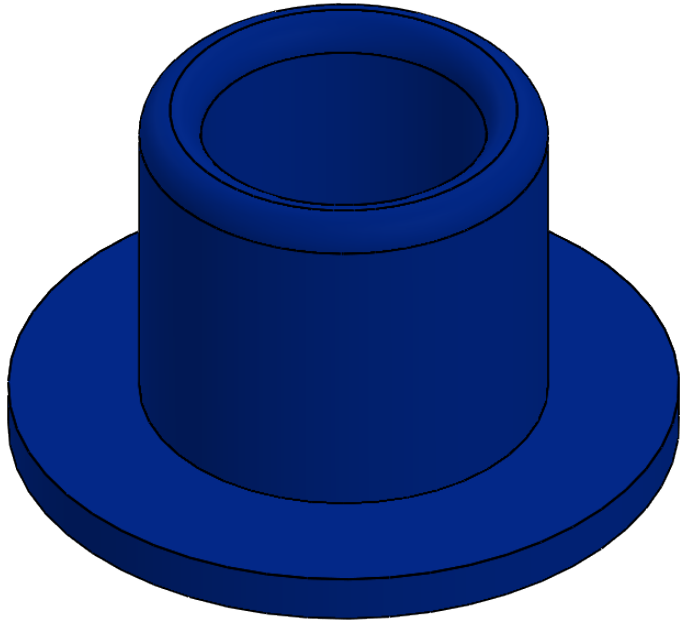
SCALE:1:1

SHEET 1 OF 1

3D PRINT FROM TPU, MAKE SOLID







DEBURR AND BREAK SHARP EDGES

TITLE: AXLE STOP

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

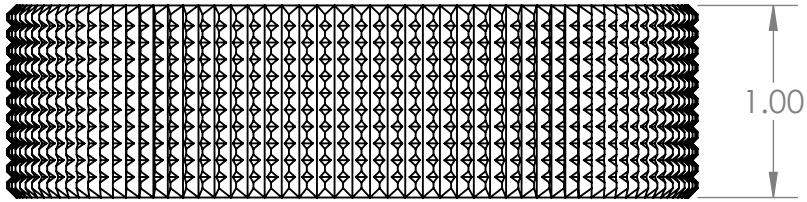
MATERIAL: 3D PRINTED TPU

A4

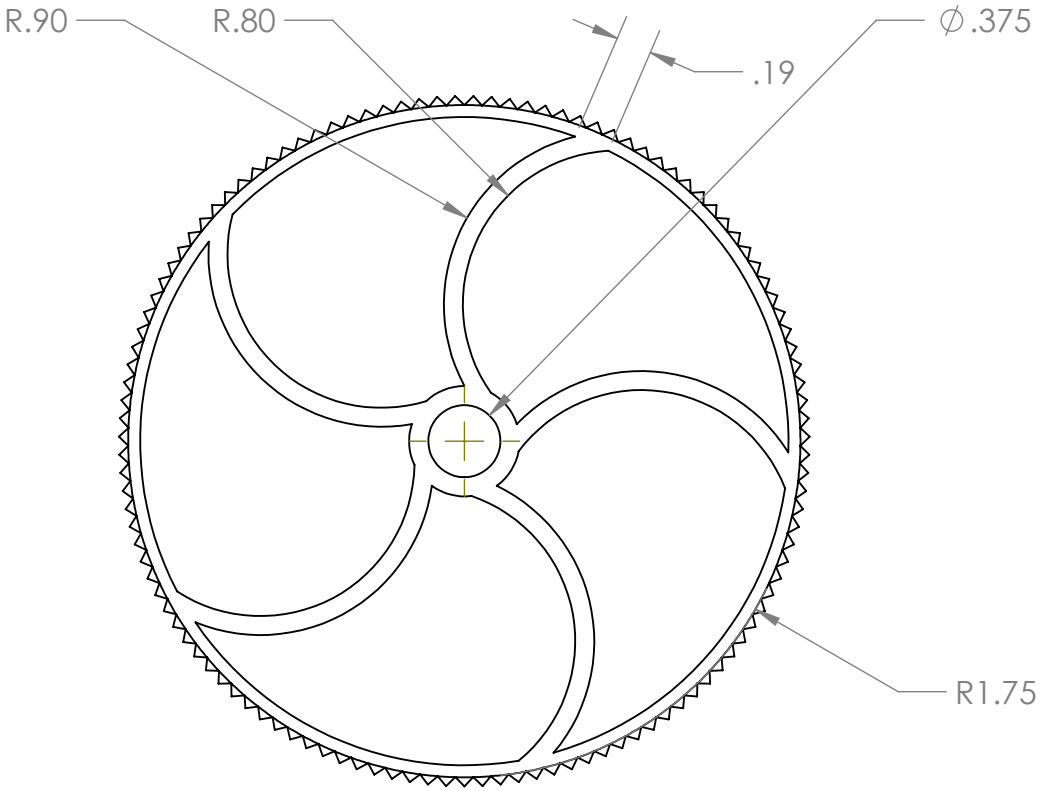
SCALE:4:1

SHEET 1 OF 1

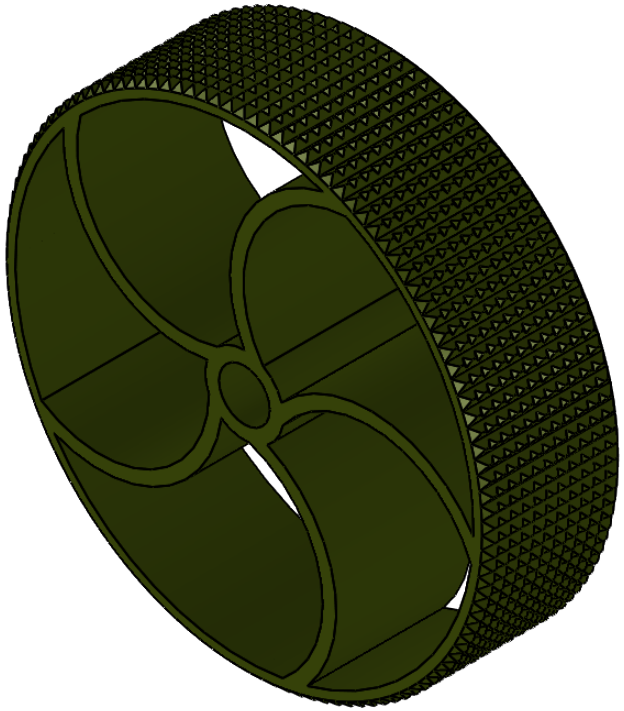
3D PRINT FROM TPU, ADD WALLS UNTIL SPOKES AND RIM ARE SOLID, TRY NO SUPPORTS TO GET GOOD TREAD, 30% INFILL



TOP



FRONT



DEBURR AND BREAK SHARP EDGES

TITLE: COMPLIANT WHEEL

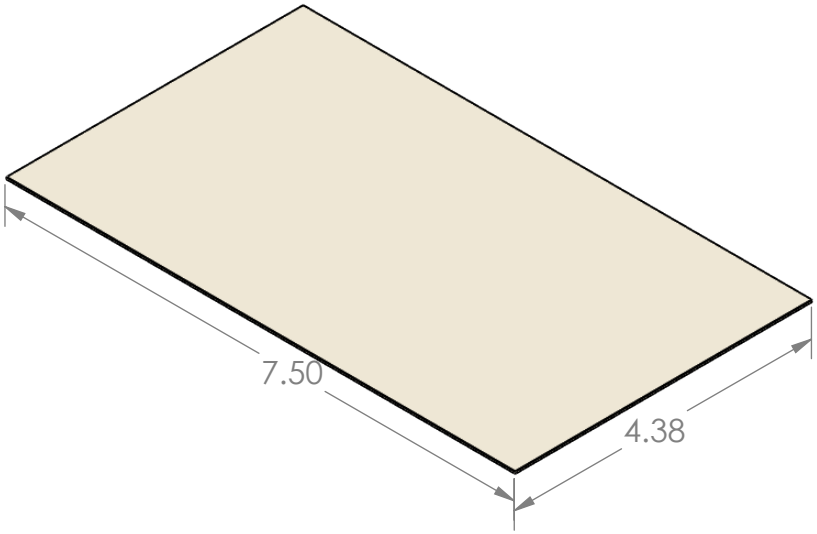
UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

MATERIAL: 3D PRINTED TPU

A4

SCALE:1:1

SHEET 1 OF 1



60 GRIT PREFERRED

USE THE 60GRIT WITH THE GLUE BACKING. IT MAY NOT BE EXACTLY THE SAME WIDTH AS SPECED HERE, BUT WHATEVER.

DEBURR AND BREAK SHARP EDGES

TITLE:

SANDPAPER

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

MATERIAL:

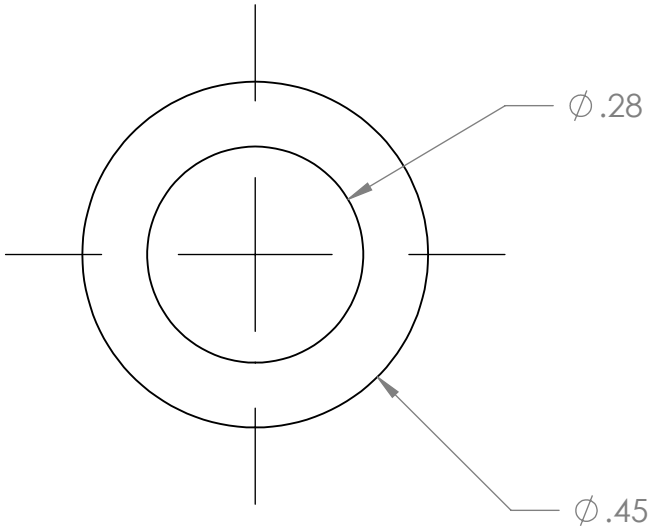
60 GRIT SANDPAPER

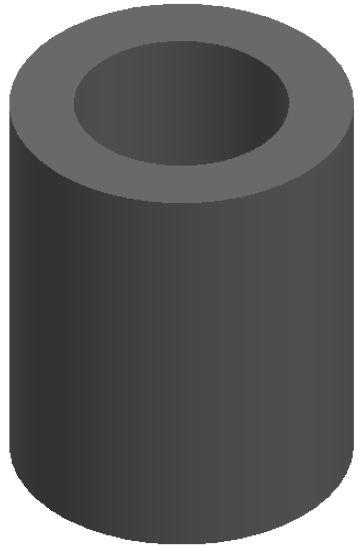
A4

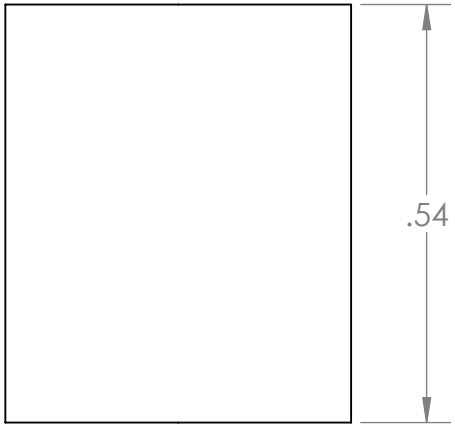
SCALE:1:2

SHEET 1 OF 1

3D PRINT 4 FROM PLA.







THE PURPOSE OF THIS IS TO ACCOUT FOR PARTIALLY THREADED BOLTS. THE NUT ISN'T ABLE TO REACH THE BLOCK IT PUSHES AGAINST, SO A SPACER IS NEEDED. BECUASE OF THE TIGHT SIZE CONSTRAINTS IT WAS DECIDED TO MAKE THIS INSTEAD OF EMPLOYING THE TRADITIONAL SOLUTION OF WASHERS. **IF WASHERS ARE FOUND THAT CAN DO THE JOB, USE THEM INSTEAD OF MAKING THIS.**

DEBURR AND BREAK SHARP EDGES

TITLE:

BOLT STANDOFF

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES: +- .03125

MATERIAL: PLA

A4

SCALE:4:1

SHEET 1 OF 1