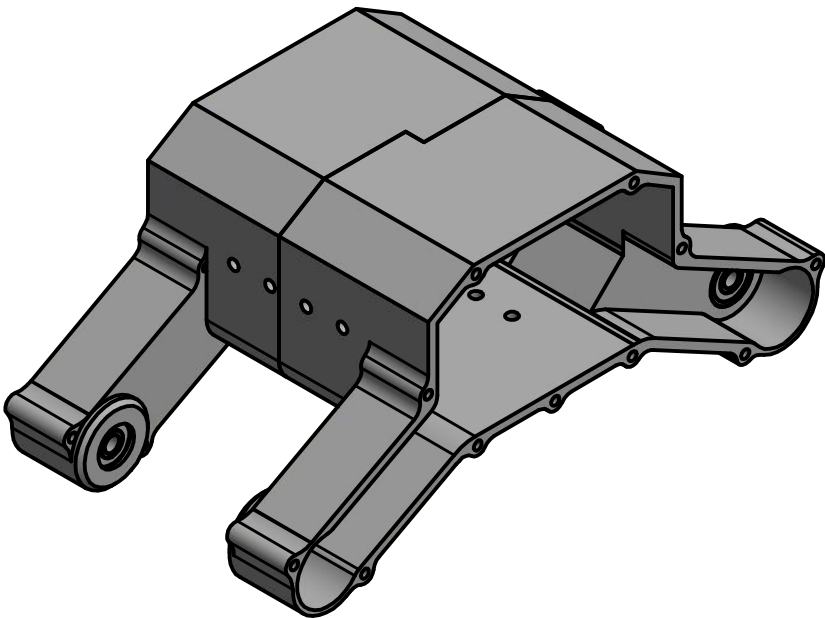
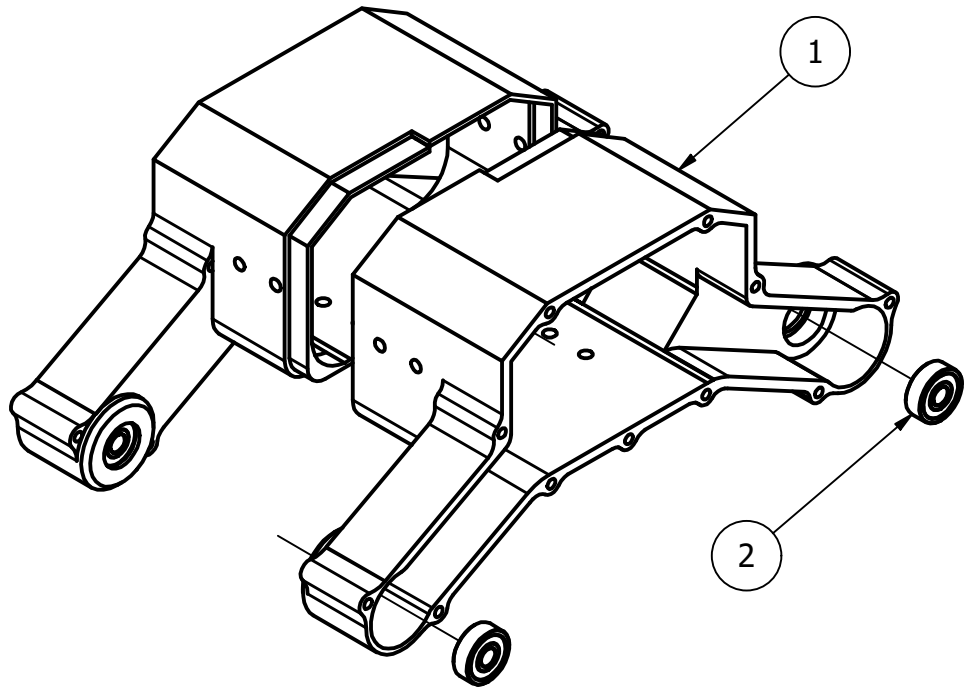
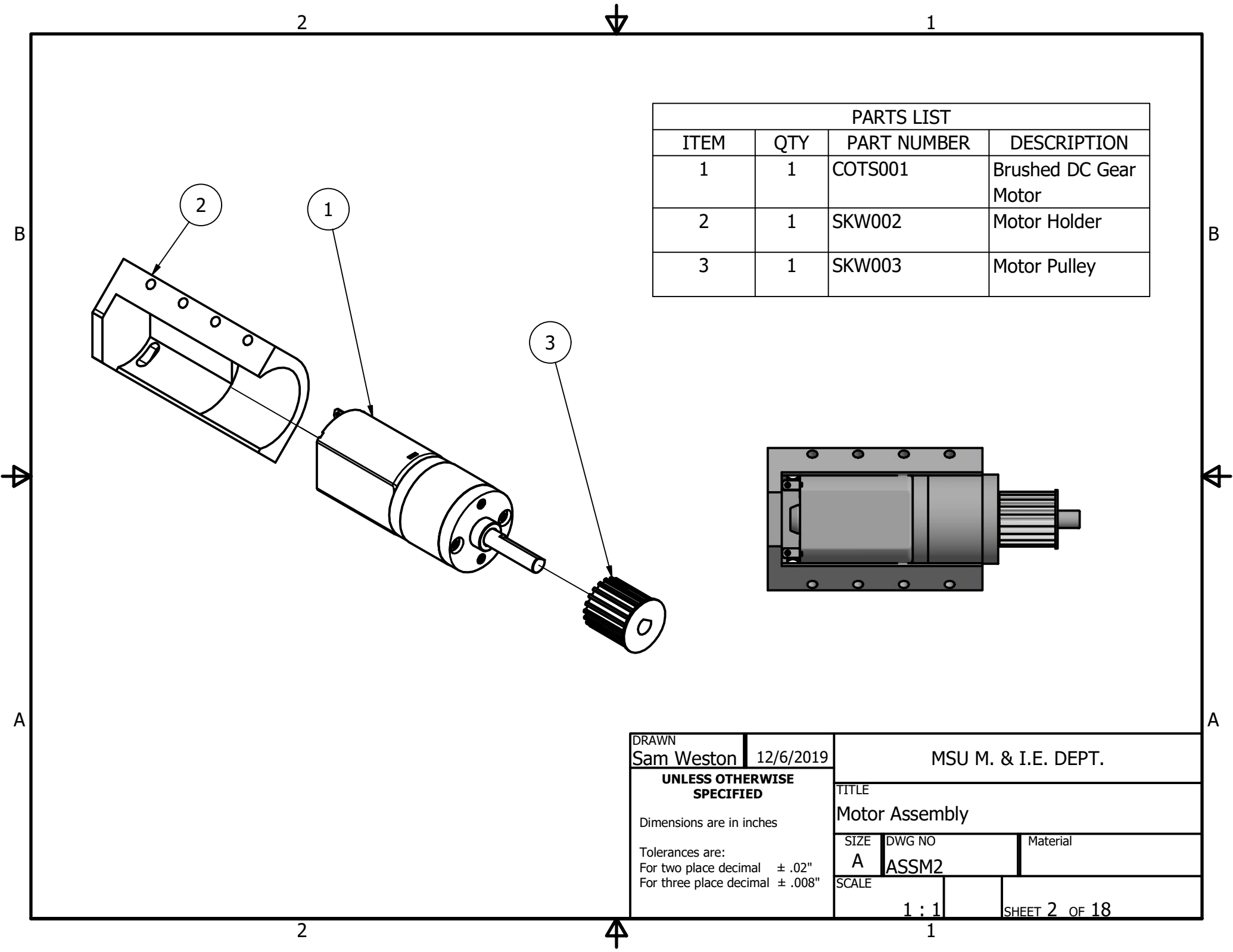


PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	SKW001	Car Body
2	4	COTS002	4mm ID Bearing

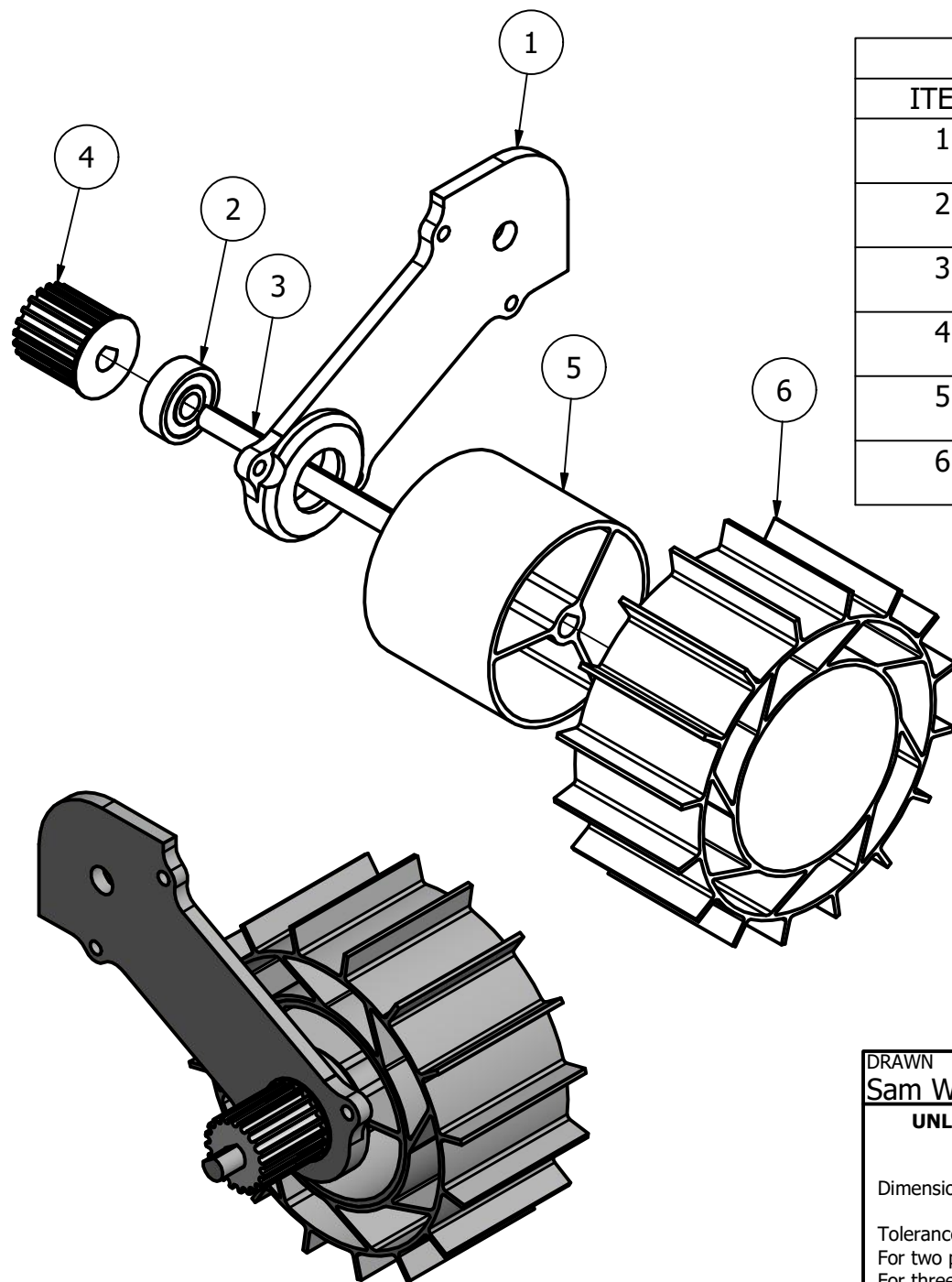


DRAWN					
Sam Weston		12/6/2019		MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"		TITLE			
		Car Chassis			
		SIZE	DWG NO	Material	
		A	ASSM1		
		SCALE			
		1 / 1.5		SHEET 1 OF 18	

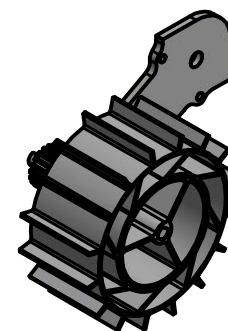


PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	COTS001	Brushed DC Gear Motor
2	1	SKW002	Motor Holder
3	1	SKW003	Motor Pulley

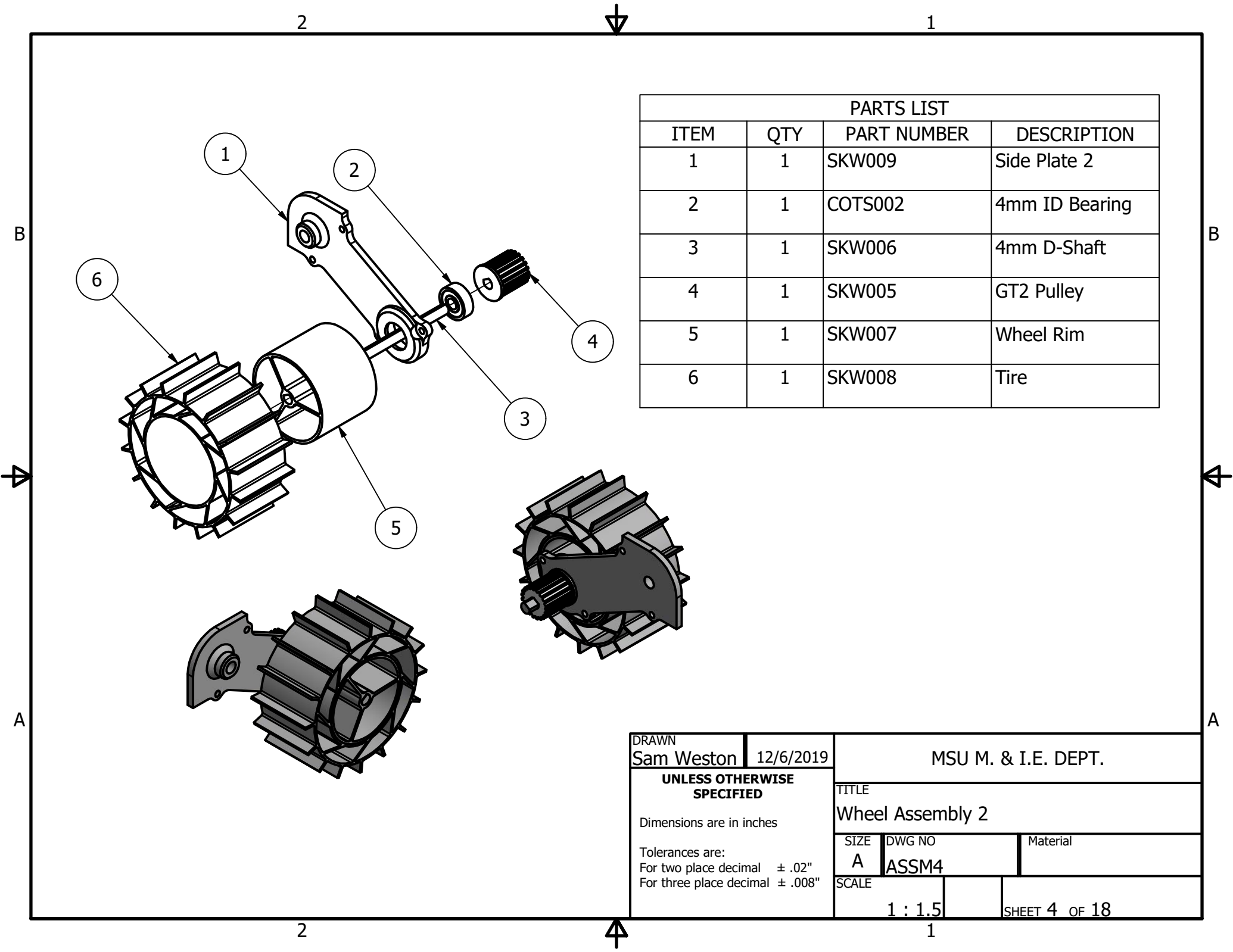
DRAWN Sam Weston		12/6/2019	MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"			TITLE Motor Assembly	
SIZE A	DWG NO ASSM2		Material	
SCALE 1 : 1			SHEET 2 OF 18	



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SKW004	Side Plate 1
2	1	COTS002	4mm ID Bearing
3	1	SKW006	4mm D-Shaft
4	1	SKW005	GT2 Pulley
5	1	SKW007	Wheel Rim
6	1	SKW008	Tire

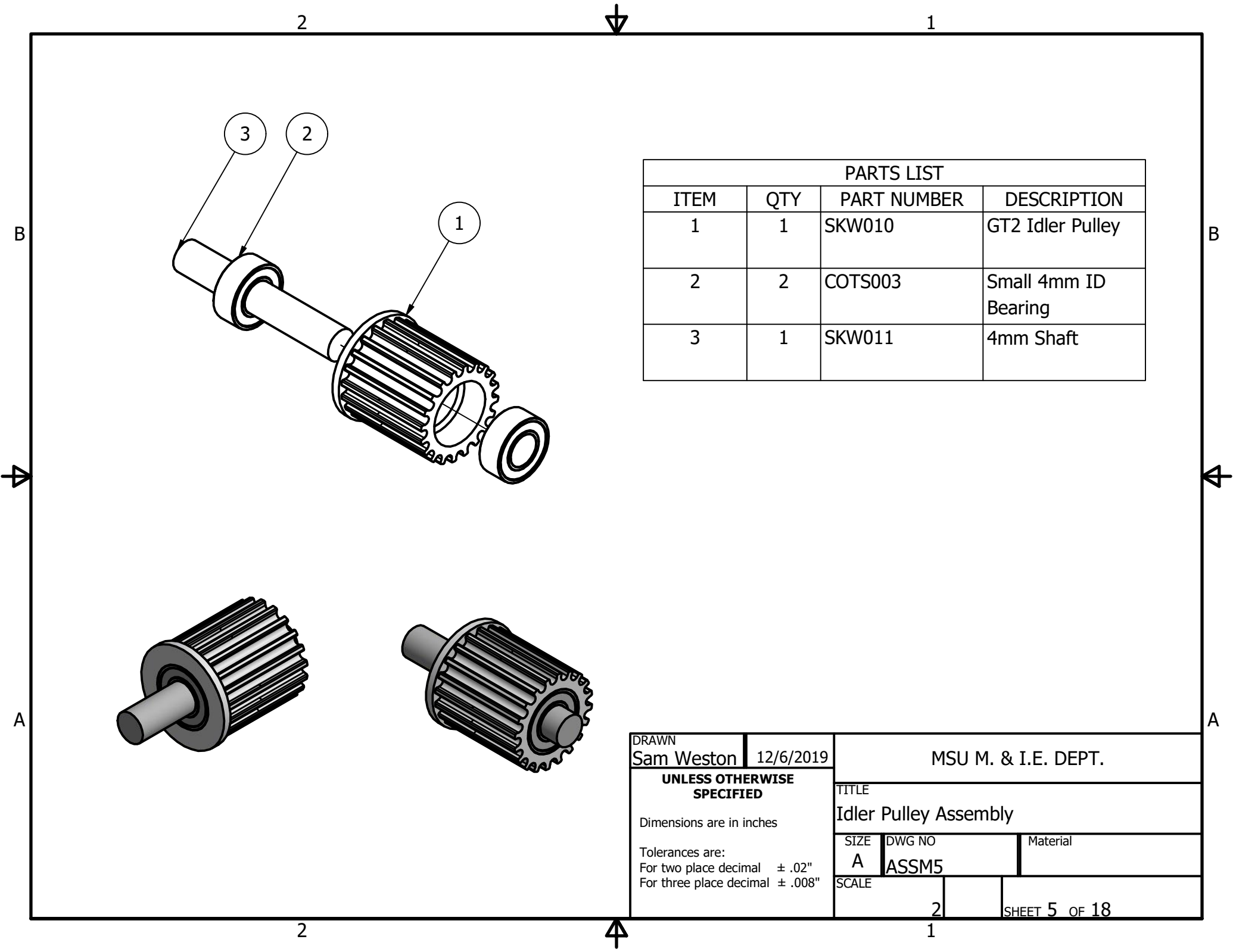


DRAWN		12/6/2019		MSU M. & I.E. DEPT.	
Sam Weston					
<b>UNLESS OTHERWISE SPECIFIED</b>				TITLE	
Dimensions are in inches				Wheel Assembly 1	
Tolerances are:				SIZE	DWG NO
For two place decimal ± .02"				A	ASSM3
For three place decimal ± .008"				SCALE	Material
				1 : 1	SHEET 3 OF 18



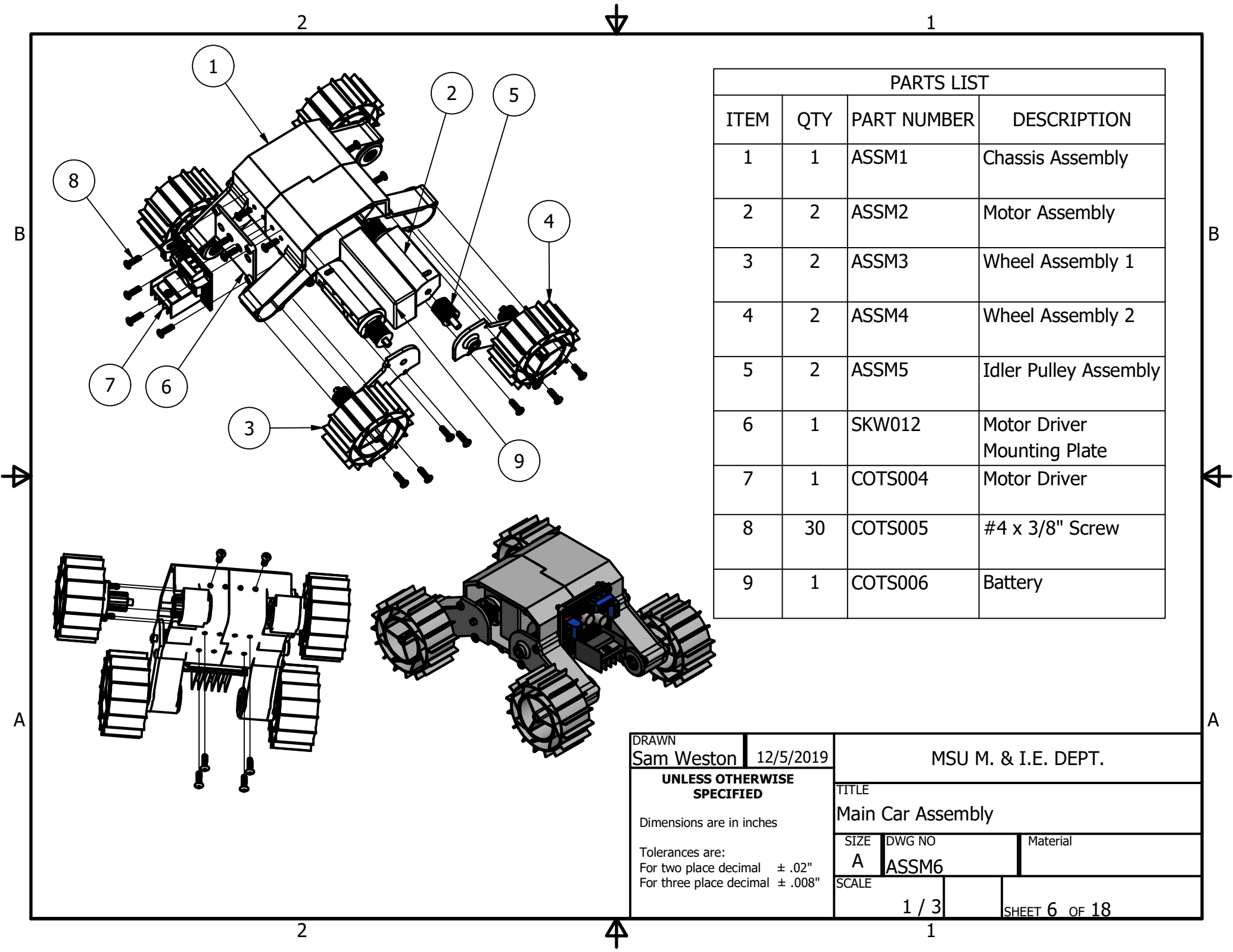
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SKW009	Side Plate 2
2	1	COTS002	4mm ID Bearing
3	1	SKW006	4mm D-Shaft
4	1	SKW005	GT2 Pulley
5	1	SKW007	Wheel Rim
6	1	SKW008	Tire

DRAWN Sam Weston		12/6/2019	MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>			TITLE Wheel Assembly 2	
Dimensions are in inches			SIZE A	DWG NO ASSM4
Tolerances are: For two place decimal ± .02" For three place decimal ± .008"			SCALE 1 : 1.5	Material SHEET 4 OF 18



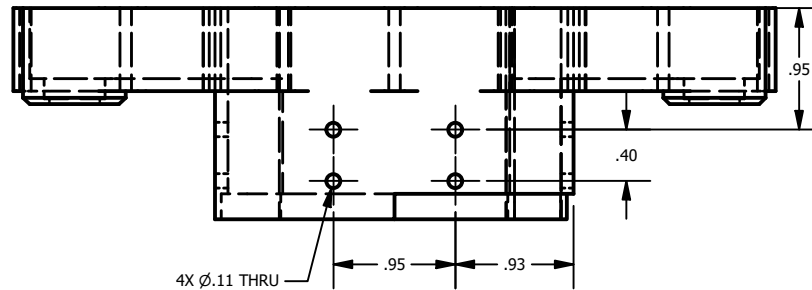
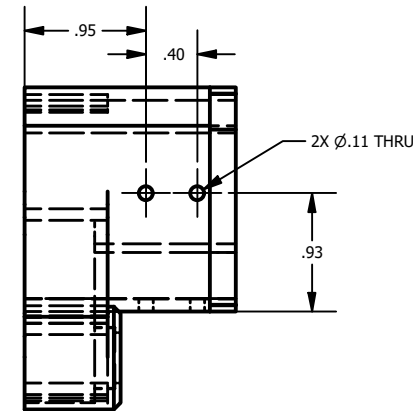
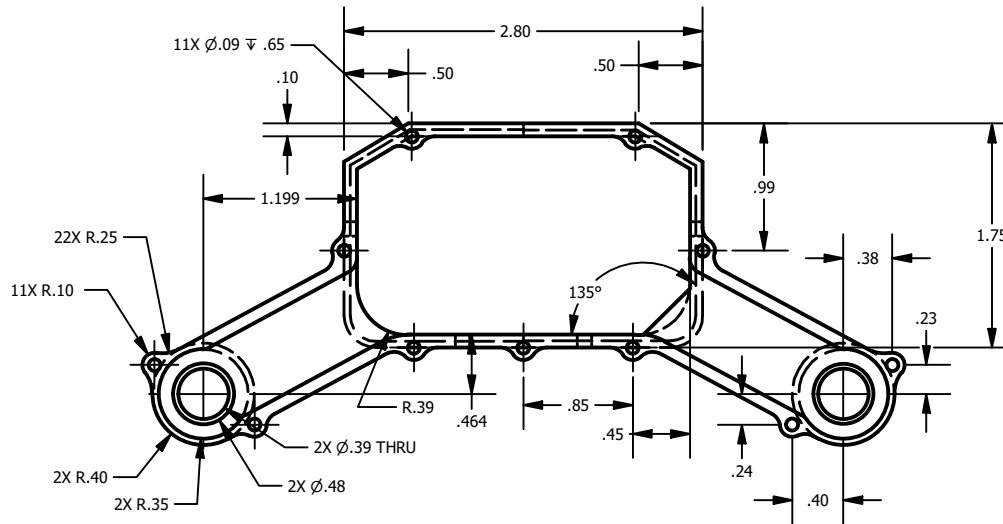
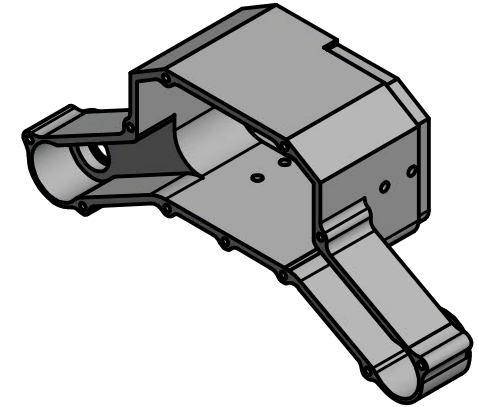
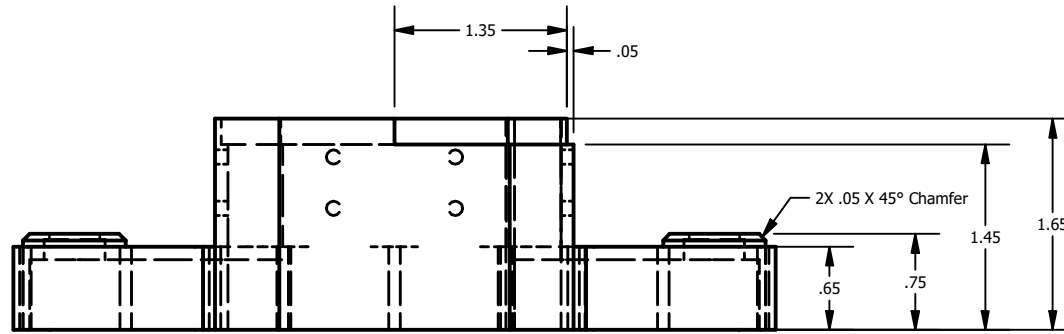
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SKW010	GT2 Idler Pulley
2	2	COTS003	Small 4mm ID Bearing
3	1	SKW011	4mm Shaft

DRAWN Sam Weston		12/6/2019	MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"			TITLE Idler Pulley Assembly	
SIZE A	DWG NO ASSM5		Material	
SCALE	2	1	SHEET 5 OF 18	



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	ASSM1	Chassis Assembly
2	2	ASSM2	Motor Assembly
3	2	ASSM3	Wheel Assembly 1
4	2	ASSM4	Wheel Assembly 2
5	2	ASSM5	Idler Pulley Assembly
6	1	SKW012	Motor Driver Mounting Plate
7	1	COTS004	Motor Driver
8	30	COTS005	#4 x 3/8" Screw
9	1	COTS006	Battery

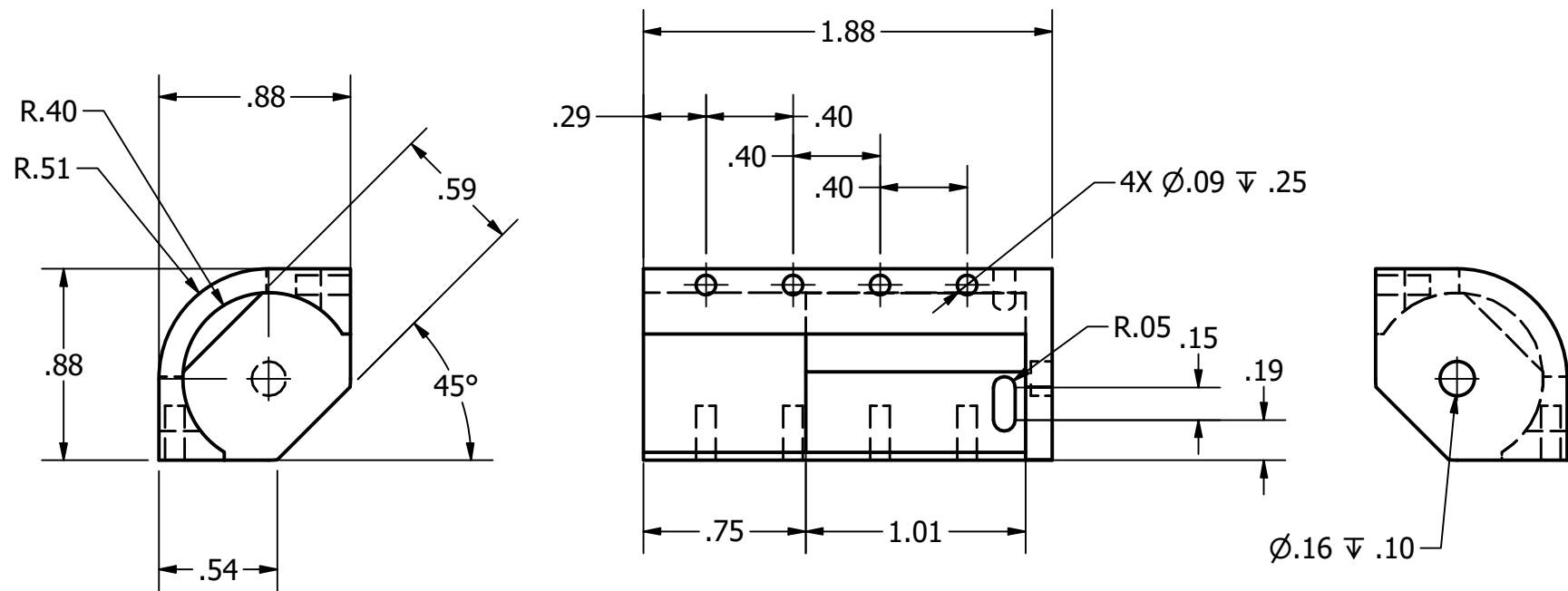
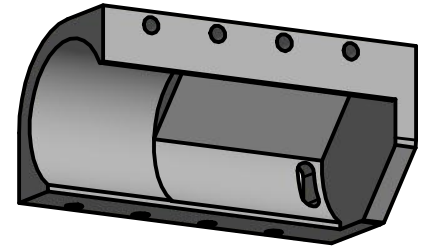
DRAWN					
Sam Weston		12/5/2019		MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"		TITLE			
		Main Car Assembly			
		SIZE	DWG NO	Material	
		A	ASSM6		
		SCALE			
		1 / 3		SHEET 6 OF 18	



Wall thickness is 0.10 unless otherwise specified

Right and Left extensions are symmetrical unless otherwise specified

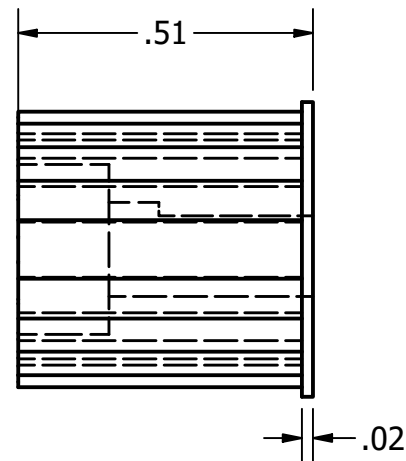
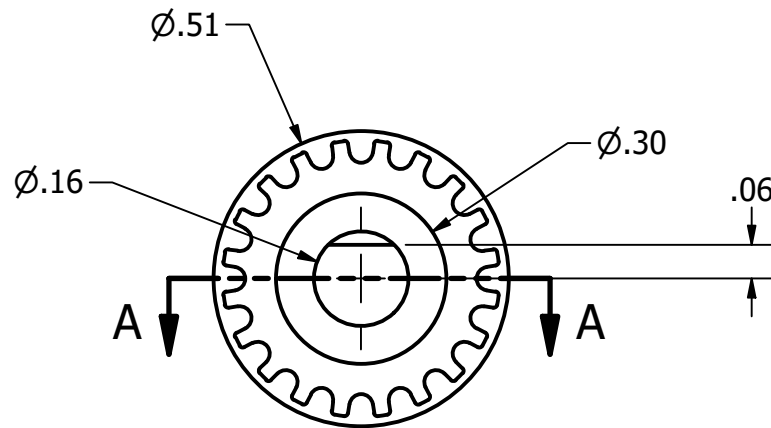
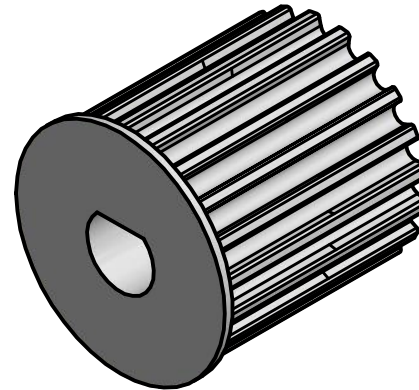
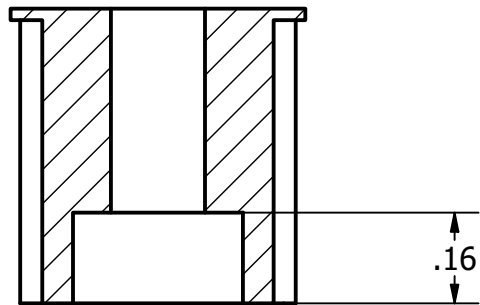
DRAWN		12/6/2019		MSU M. & I.E. DEPT.	
Sam Weston					
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"				TITLE	
				Car Body	
				SIZE	DWG NO
				A	SKW001
				Material	
SCALE				PETG	
1 / 1.5				SHEET 7 OF 18	



4 Holes and the slot are the same on each side

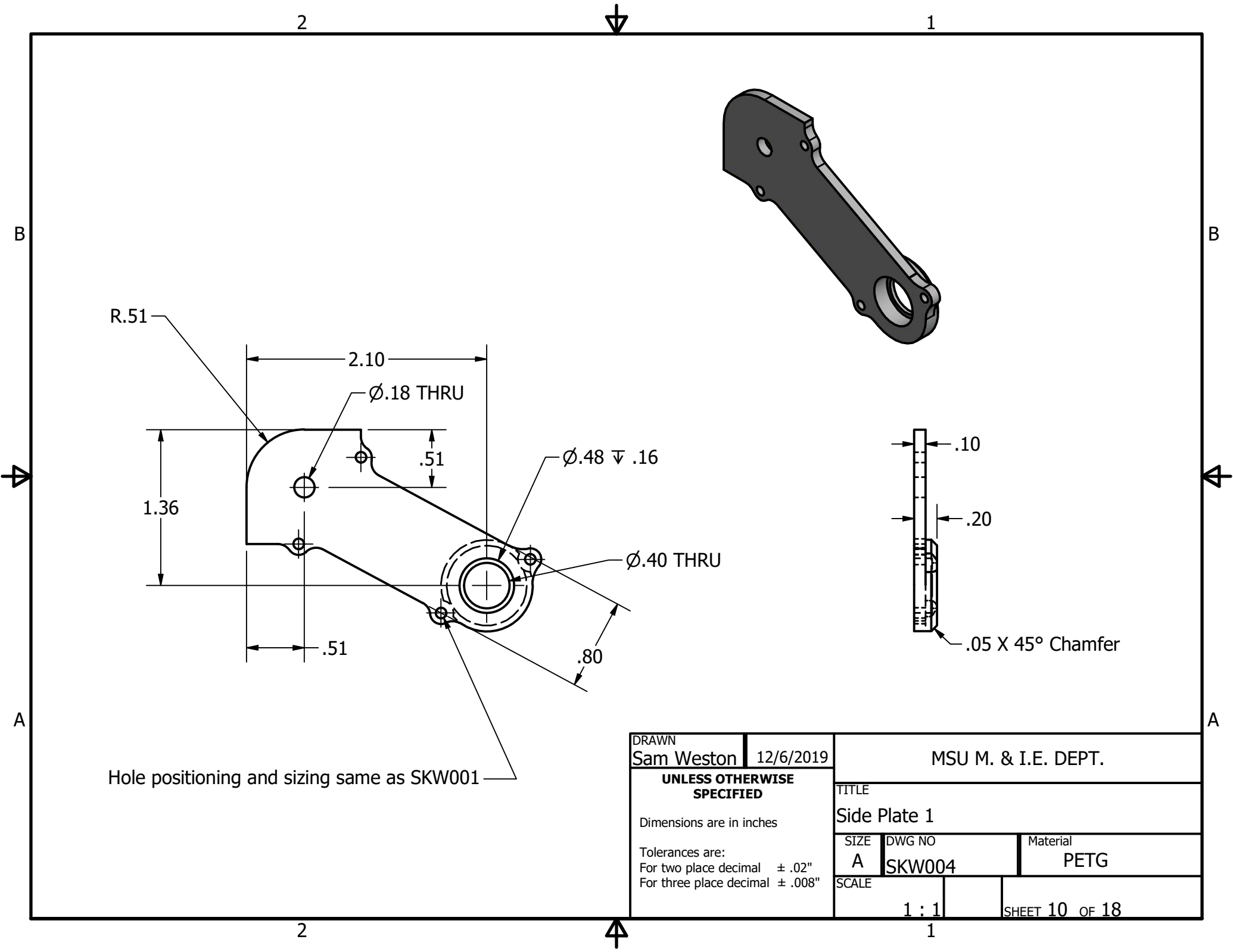
DRAWN		12/6/2019		MSU M. & I.E. DEPT.	
Sam Weston					
<b>UNLESS OTHERWISE SPECIFIED</b>				TITLE	
Dimensions are in inches				Motor Holder	
Tolerances are:		SIZE	DWG NO	Material	
For two place decimal    ± .02"		A	SKW002	PETG	
For three place decimal   ± .008"		SCALE			
		1.25		SHEET 8 OF 18	





Tooth profile is the same as a 20 tooth GT2 pulley

DRAWN							
Sam Weston		12/6/2019		MSU M. & I.E. DEPT.			
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"				TITLE			
				Motor Pulley			
				SIZE	DWG NO	Material	
				A	SKW003	PETG	
SCALE				SHEET 9 OF 18			
		3					



R.51

2.10

Ø.18 THRU

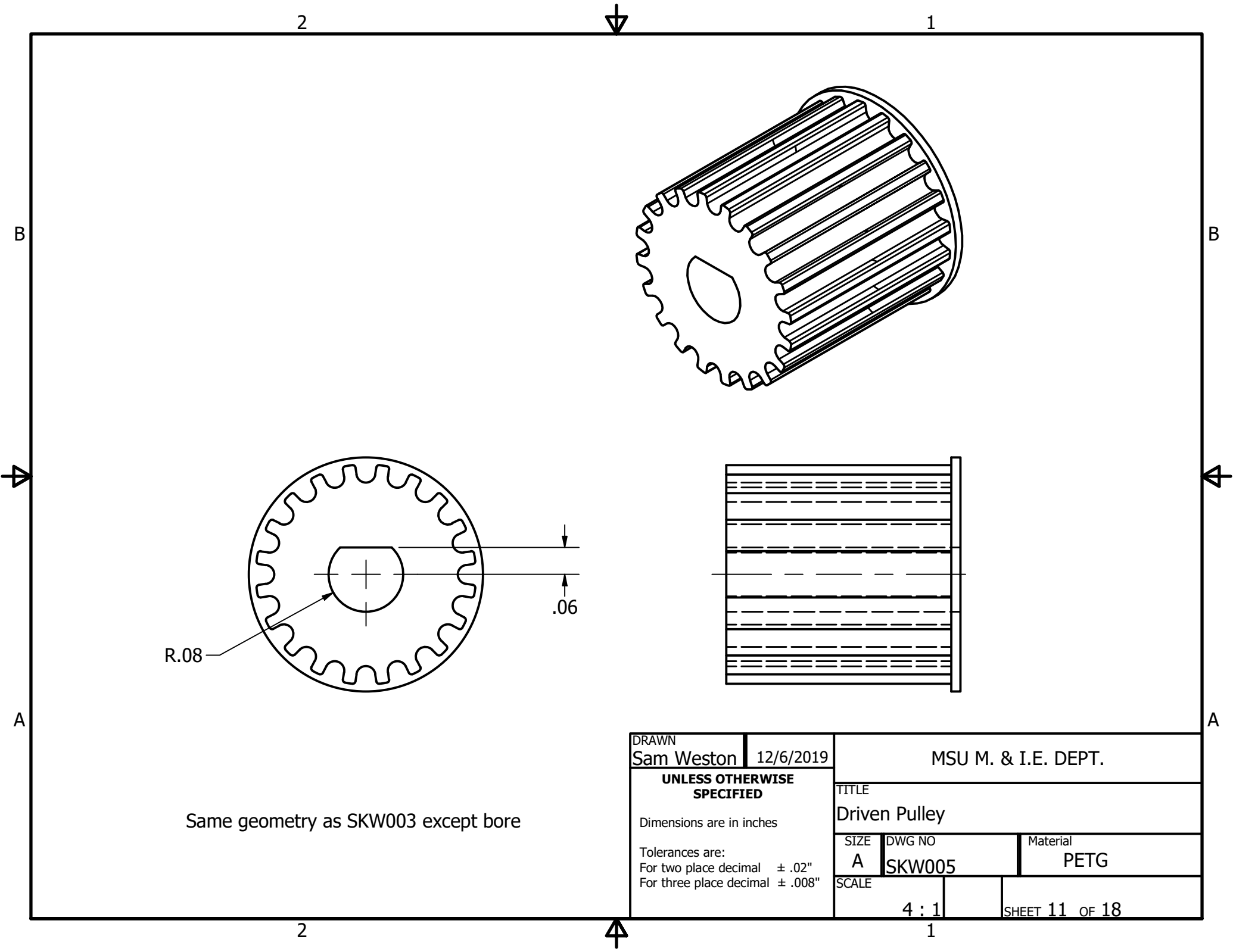
Ø.48  $\nabla$  .16

Ø.40 THRU

.05 X 45° Chamfer

Hole positioning and sizing same as SKW001

DRAWN		MSU M. & I.E. DEPT.		
Sam Weston				
12/6/2019				
<b>UNLESS OTHERWISE SPECIFIED</b>				
TITLE				
Dimensions are in inches		Side Plate 1		
Tolerances are:		SIZE	DWG NO	Material
For two place decimal ± .02"		A	SKW004	PETG
For three place decimal ± .008"		SCALE		
		1 : 1		SHEET 10 OF 18

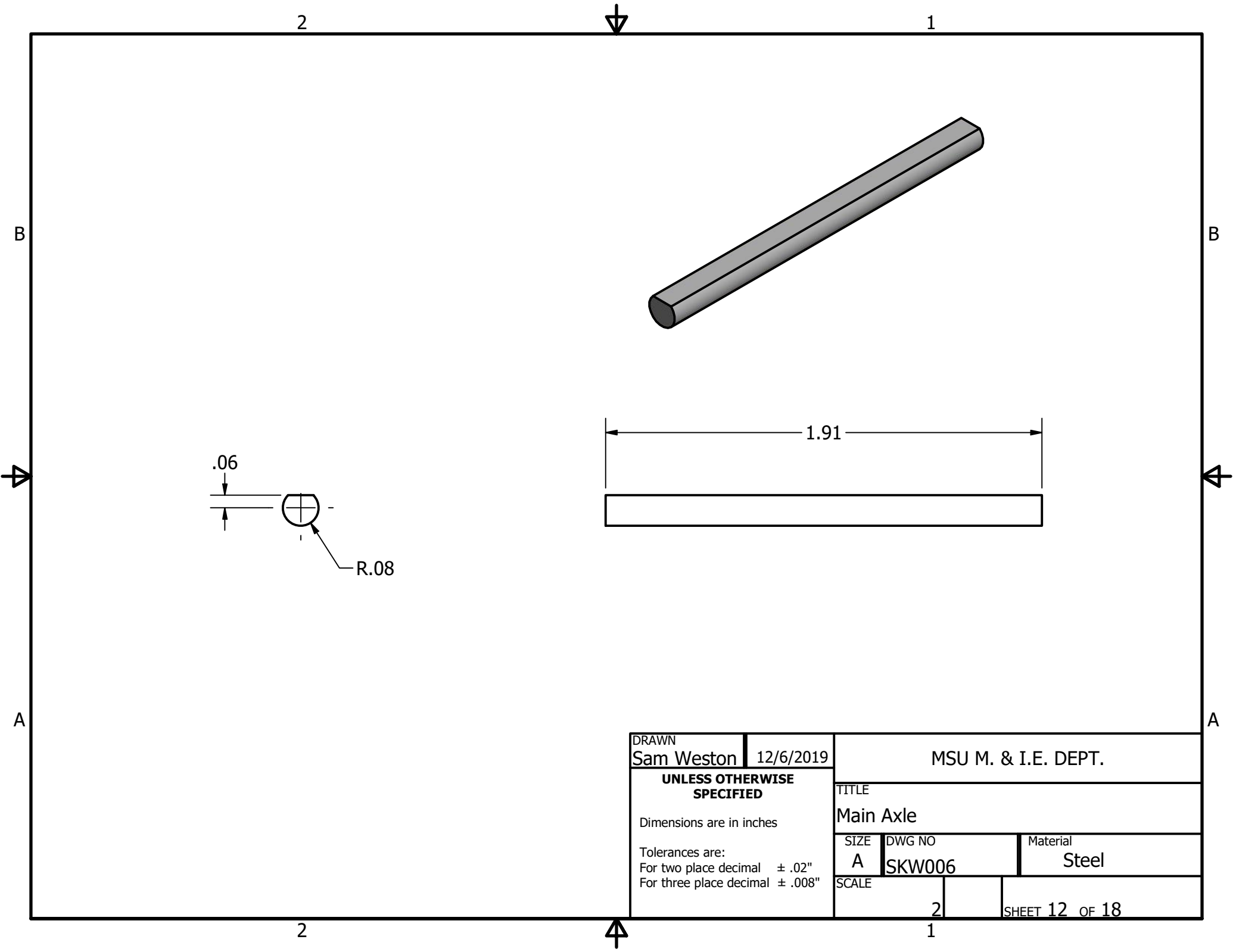


R.08

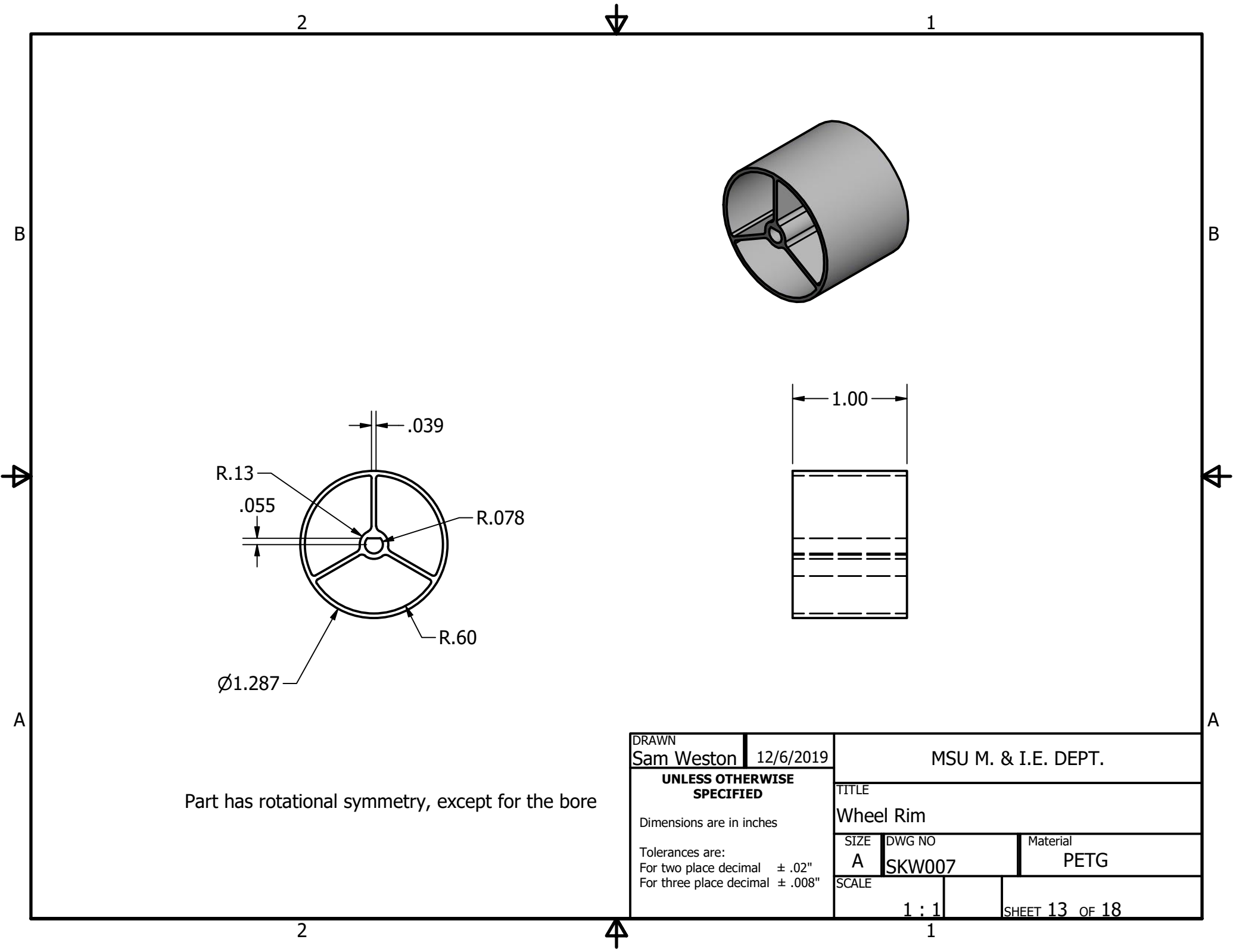
.06

Same geometry as SKW003 except bore

DRAWN Sam Weston		12/6/2019	MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>			TITLE Driven Pulley	
Dimensions are in inches			SIZE A	DWG NO SKW005
Tolerances are: For two place decimal ± .02" For three place decimal ± .008"			Material PETG	
			SCALE 4 : 1	SHEET 11 OF 18

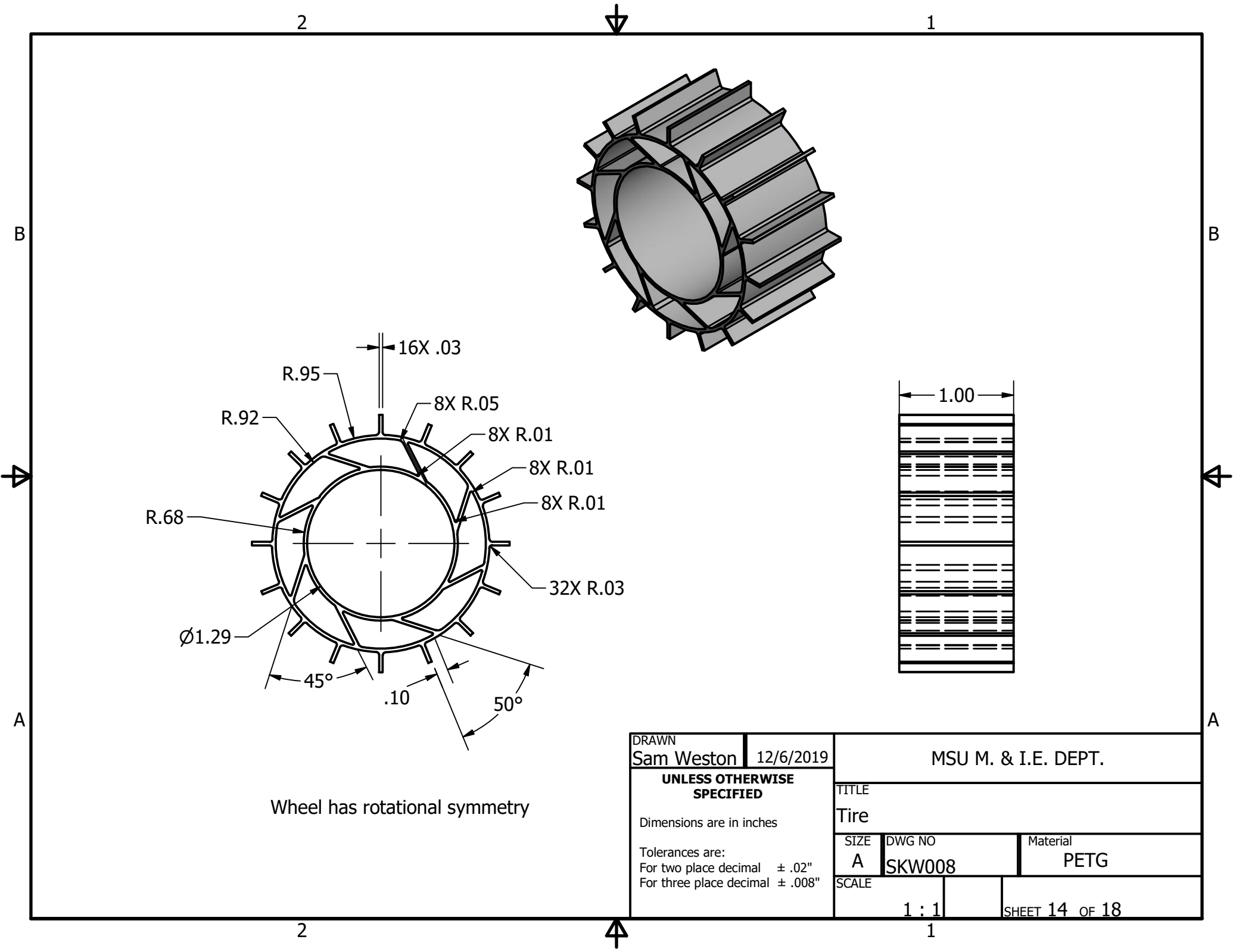


DRAWN		12/6/2019		MSU M. & I.E. DEPT.	
Sam Weston					
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"		TITLE			
		Main Axle			
		SIZE	DWG NO	Material	
		A	SKW006	Steel	
		SCALE		SHEET 12 OF 18	
			2		



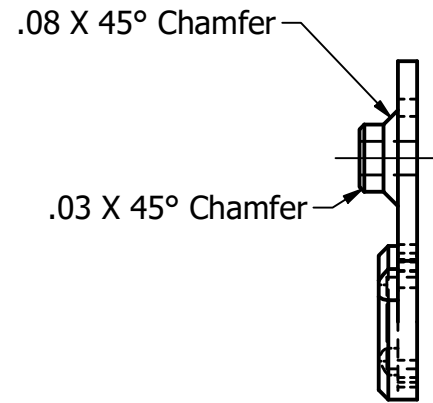
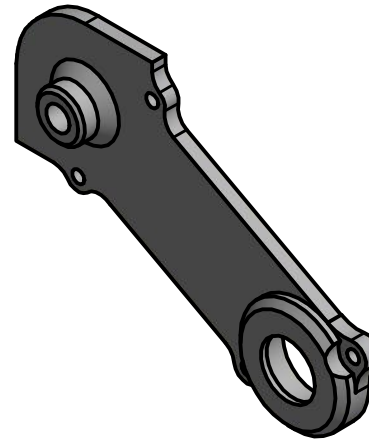
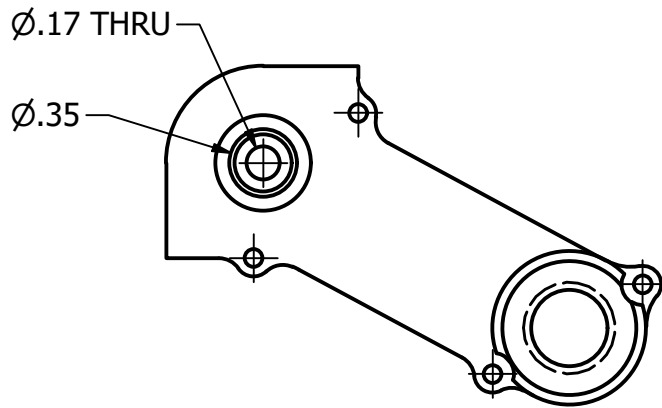
Part has rotational symmetry, except for the bore

DRAWN Sam Weston		12/6/2019	MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>			TITLE Wheel Rim	
Dimensions are in inches			SIZE A	DWG NO SKW007
Tolerances are: For two place decimal $\pm .02"$ For three place decimal $\pm .008"$			Material PETG	
SCALE 1 : 1			SHEET 13 OF 18	



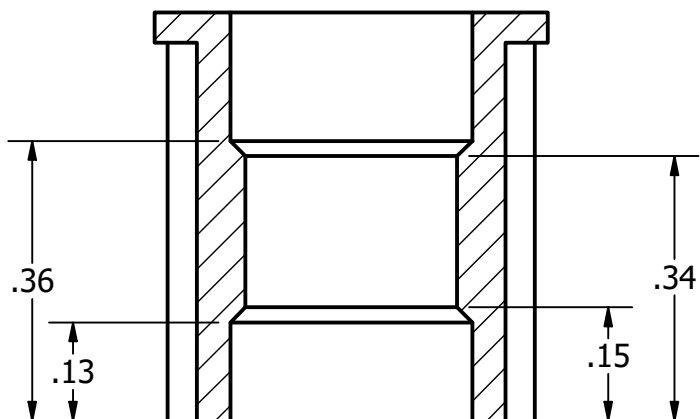
Wheel has rotational symmetry

DRAWN		MSU M. & I.E. DEPT.				
Sam Weston				12/6/2019		
<b>UNLESS OTHERWISE SPECIFIED</b>  Dimensions are in inches  Tolerances are: For two place decimal    ± .02" For three place decimal   ± .008"				TITLE  Tire		
				SIZE A	DWG NO SKW008	Material PETG
				SCALE  1 : 1		SHEET 14 OF 18

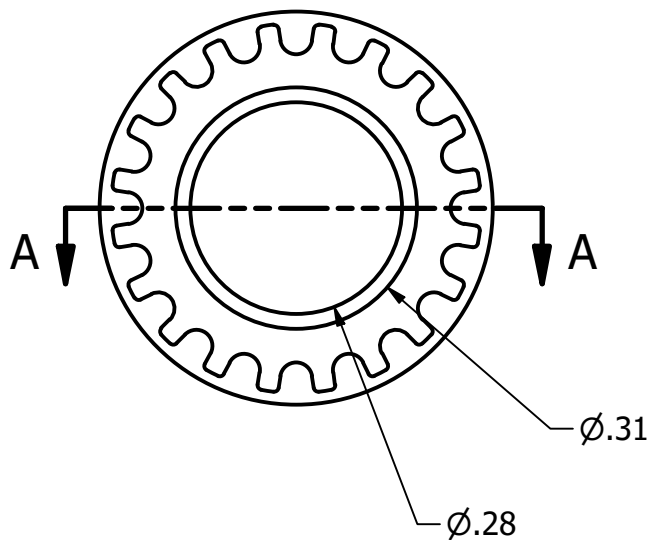


Mirror image of SKW0054 except for feature indicated

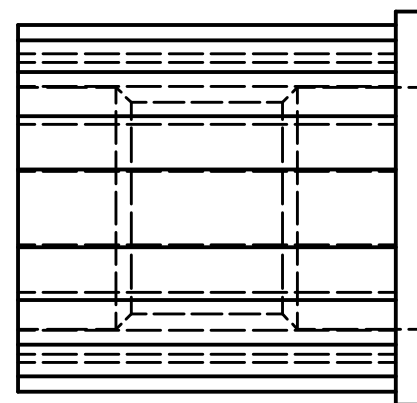
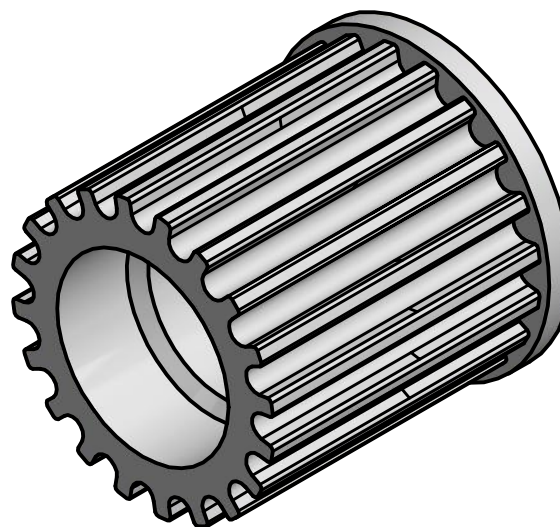
DRAWN Sam Weston	12/6/2019	MSU M. & I.E. DEPT.	
UNLESS OTHERWISE SPECIFIED		TITLE Side Plate 2	
Dimensions are in inches		SIZE A	DWG NO SKW009
Tolerances are: For two place decimal ± .02" For three place decimal ± .008"		Material PETG	
SCALE 1 : 1		SHEET 15 OF 18	



SECTION A-A  
SCALE 4 : 1

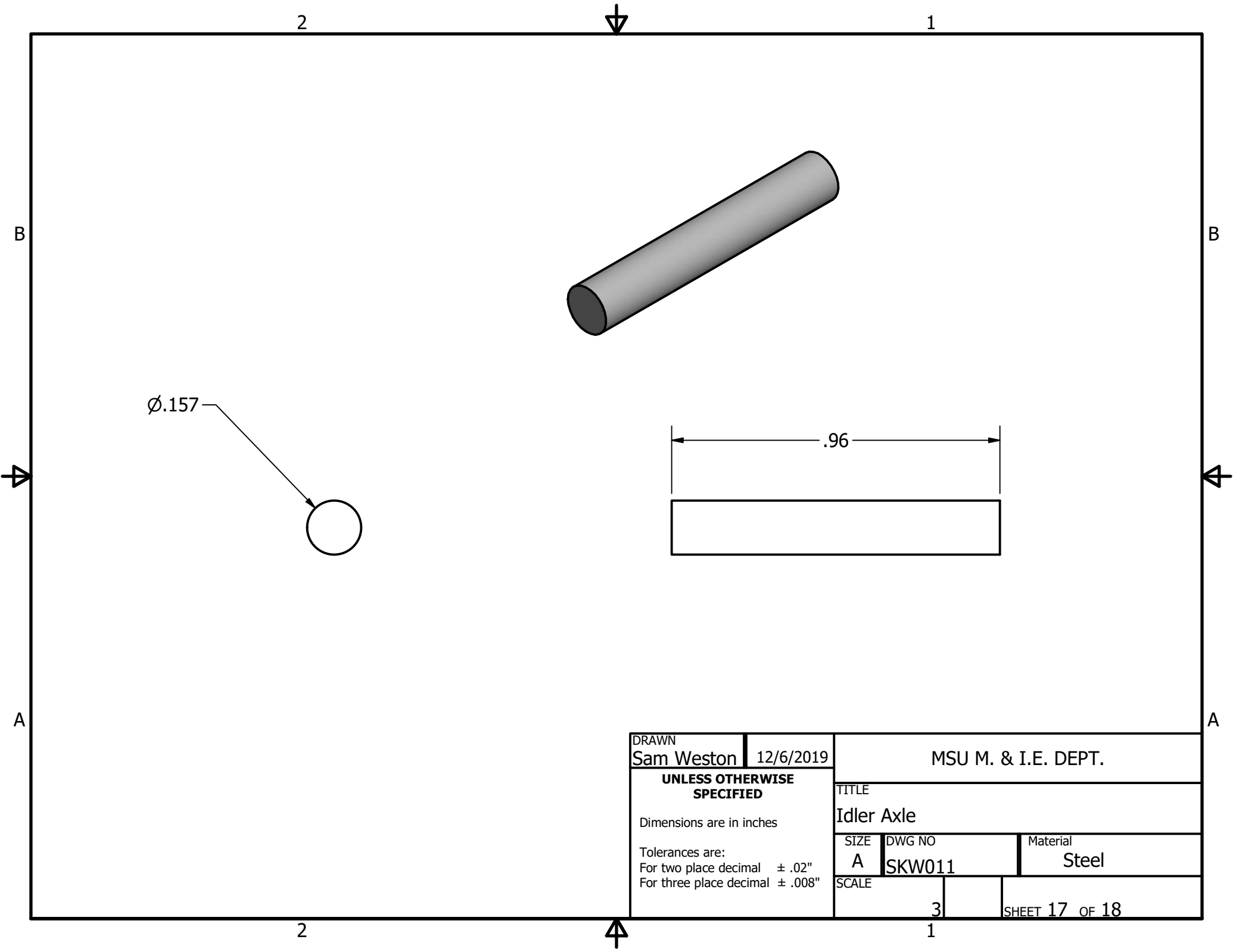


Same geometry as SKW003 except bore

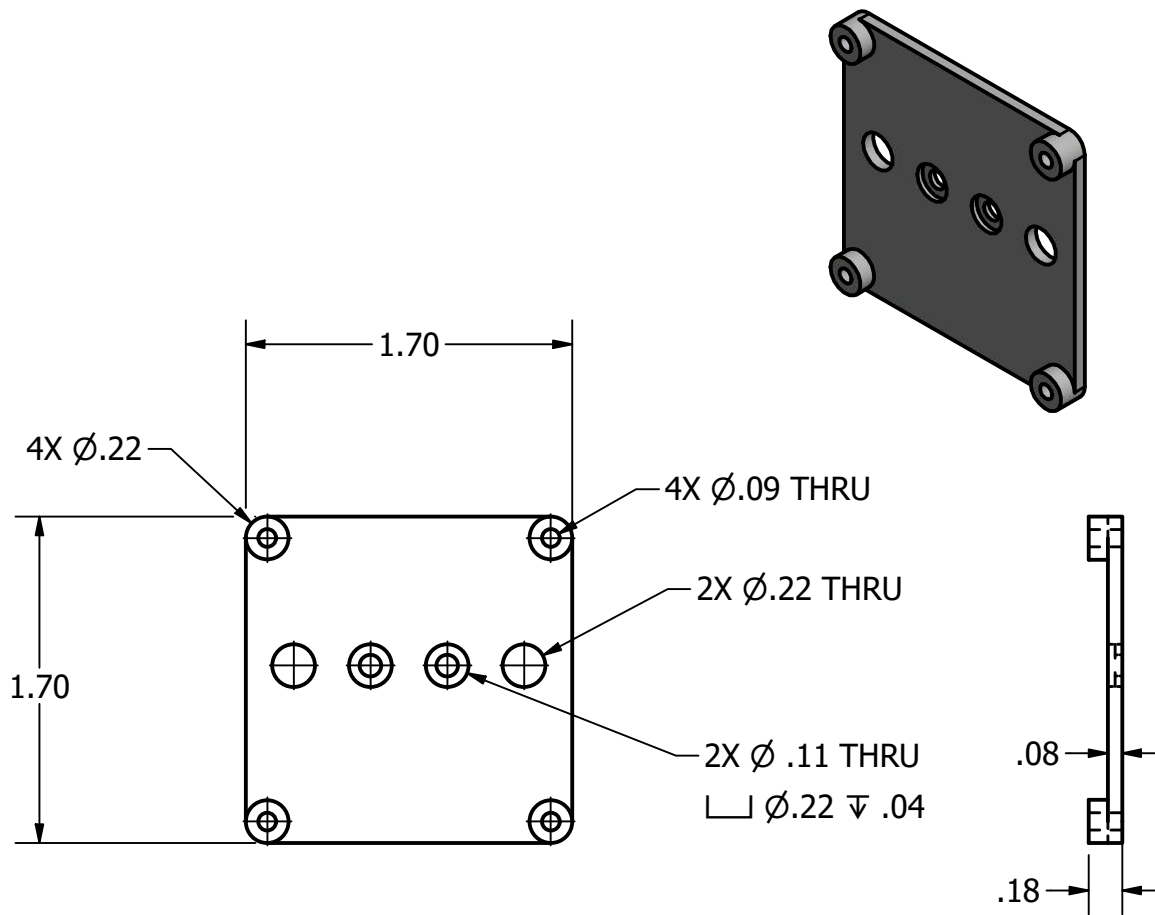


DRAWN Sam Weston	12/6/2019	MSU M. & I.E. DEPT.	
UNLESS OTHERWISE SPECIFIED		TITLE Idler Pulley	
Dimensions are in inches		SIZE A	DWG NO SKW010
Tolerances are: For two place decimal $\pm .02"$ For three place decimal $\pm .008"$		Material PETG	SCALE 4 : 1
		SHEET 16 OF 18	





DRAWN		MSU M. & I.E. DEPT.			
Sam Weston				12/6/2019	
<b>UNLESS OTHERWISE SPECIFIED</b>				TITLE	
Dimensions are in inches				Idler Axle	
Tolerances are: For two place decimal ± .02" For three place decimal ± .008"				SIZE A	DWG NO SKW011
SCALE		3	SHEET 17 OF 18		



DRAWN Sam Weston	12/6/2019	MSU M. & I.E. DEPT.	
<b>UNLESS OTHERWISE SPECIFIED</b>		TITLE Motor Controller Mounting Plate	
Dimensions are in inches		SIZE A	DWG NO SKW012
Tolerances are: For two place decimal ± .02" For three place decimal ± .008"		Material PETG	
SCALE 1 : 1		SHEET 18 OF 18	