

PART NO.	PART NAME	QTY.	MATERIAL
1	ENCLOSURE BODY	1	ABS
2	ENCLOSURE TOP	1	ABS
3	ADDITION KNOB	2	ABS
4	Subtraction knob	1	ABS
5	OUTPUT GEAR	1	ABS
6	KNOB GEAR	3	ABS
7	LOCK BAR LONG	1	ABS
8	LOCK BAR SHORT	2	ABS
9	ANSWER COVER UPPER	1	ABS
10	ANSWER COVER LOWER	1	ABS
11	FRICTION PIN	1	POM
12	.3 OD .256 ID .5 LENGTH COMPRESSION SPRING	3	STEEL
13	6-32 X .5 FLAT HEAD SCREW	4	STEEL
14	4-40 X .875 PAN HEAD SCREW	1	STEEL
15	4-40 x .4375 PAN HEAD SCREW	2	STEEL
16	4-40 X .625 FLAT HEAD SCREW	6	STEEL
17	4-40 X .1875 FLAT HEAD SCREW	1	STEEL
18	4-40 HEX NUT	6	STEEL

В

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		UNLESS OTHERWISE SPECIFIED:	
		DIMENSIONS ARE IN INCHES	DRA
		TOLERANCES:  ANGULAR: MACH± 0°30'	CHE
		TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	ENG
			MFC
		INTERPRET GEOMETRIC	Q.A
		TOLERANCING PER: ASME Y14.5  MATERIAL  -	CO
NEXT ASSY	USED ON	FINISH -	
APPLIC	CATION	DO NOT SCALE DRAWING	

:		NAME	DATE	
	DRAWN	st3442, ey2319	05/02/2023	
	CHECKED			TITLE:
	ENG APPR.			
	MFG APPR.			
	Q.A.			
	COMMENTS:			
				SIZE

ASSEMBLED TOY EXP.

Columbia SEAS

SIZE DWG. NO.
ARITHMETIC TOY

SCALE: 1:3 WEIGHT: - SHEET 1 OF 14

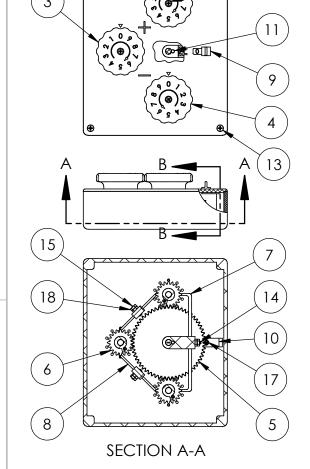
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В

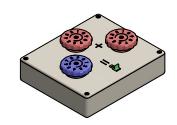
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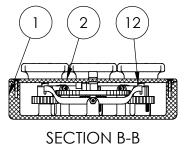
16





В





PART NO.	PART NAME	QTY.	MATERIAL
1	ENCLOSURE BODY	1	ABS
2	ENCLOSURE TOP	1	ABS
3	ADDITION KNOB	2	ABS
4	SUBTRACTION KNOB	1	ABS
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6	KNOB GEAR	3	ABS
7	LOCK BAR LONG	1	ABS
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14	4-40 X .875 PAN HEAD SCREW	]	STEEL
15	4-40 x .4375 PAN HEAD SCREW	2	STEEL
16	4-40 X .625 FLAT HEAD SCREW	6	STEEL
17	4-40 X .1875 FLAT HEAD SCREW	1	STEEL
18	4-40 HEX NUT	6	STEEL

## HIDDEN AND CENTER LINES EXCLUDED FOR CLARITY

1

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APPLICATION		DO NOT SCALE DRAWING	
NEXT ASSY	USED ON	FINISH	
		MATERIAL -	
		TOLERANCING PER: ASME Y14.5	СО
		INTERPRET GEOMETRIC	Q.A
			MFC
		TWO PLACE DECIMAL ± 0.0 THREE PLACE DECIMAL ± 0.0	ENG
		TOLERANCES:  ANGULAR: MACH± 0°30'	CHE
		DIMENSIONS ARE IN INCHES	DRA
		UNLESS OTHERWISE SPECIFIED	:

	NAME	DATE	
DRAWN	st3442, ey2319	05/02/2023	
CHECKED			TITLE:
ENG APPR.			
MFG APPR.			
Q.A.			
COMMENTS:			
			SIZE

ASSEMBLED TOY BOM

Columbia SEAS

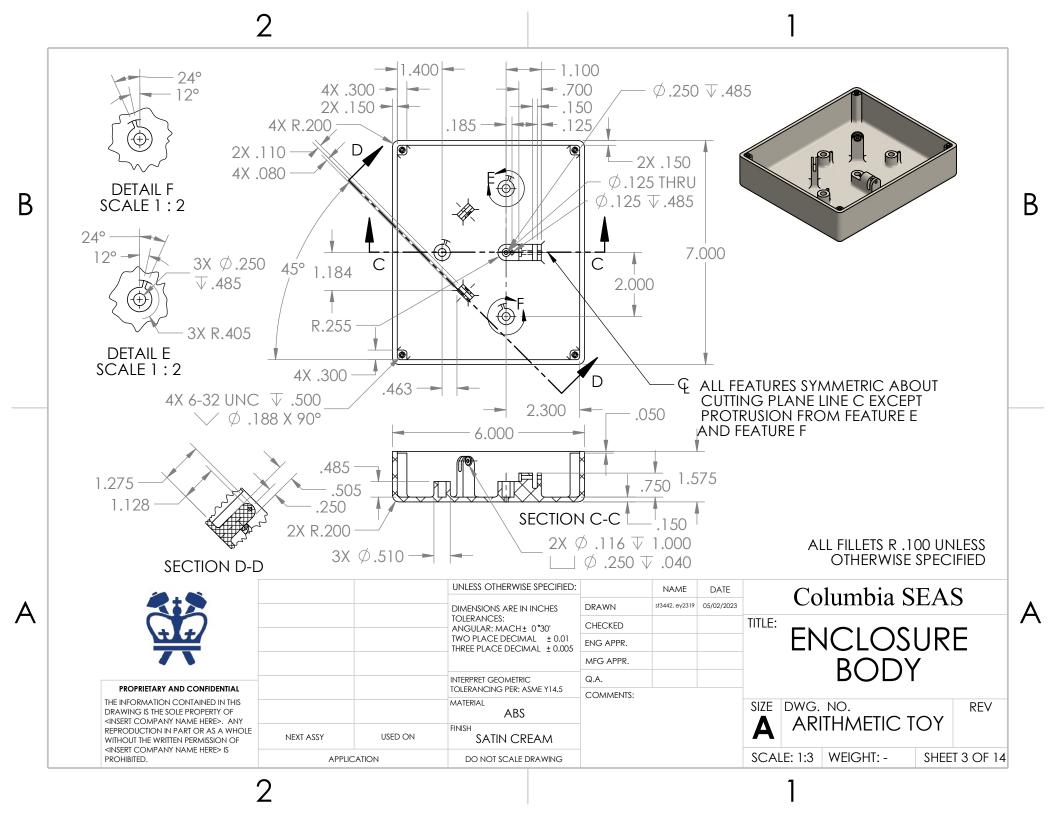
	DWG.	NO. THMETIC T	OY	REV
SCAI	_E: 1:4	WEIGHT: -	SHEE	T 2 OF 14

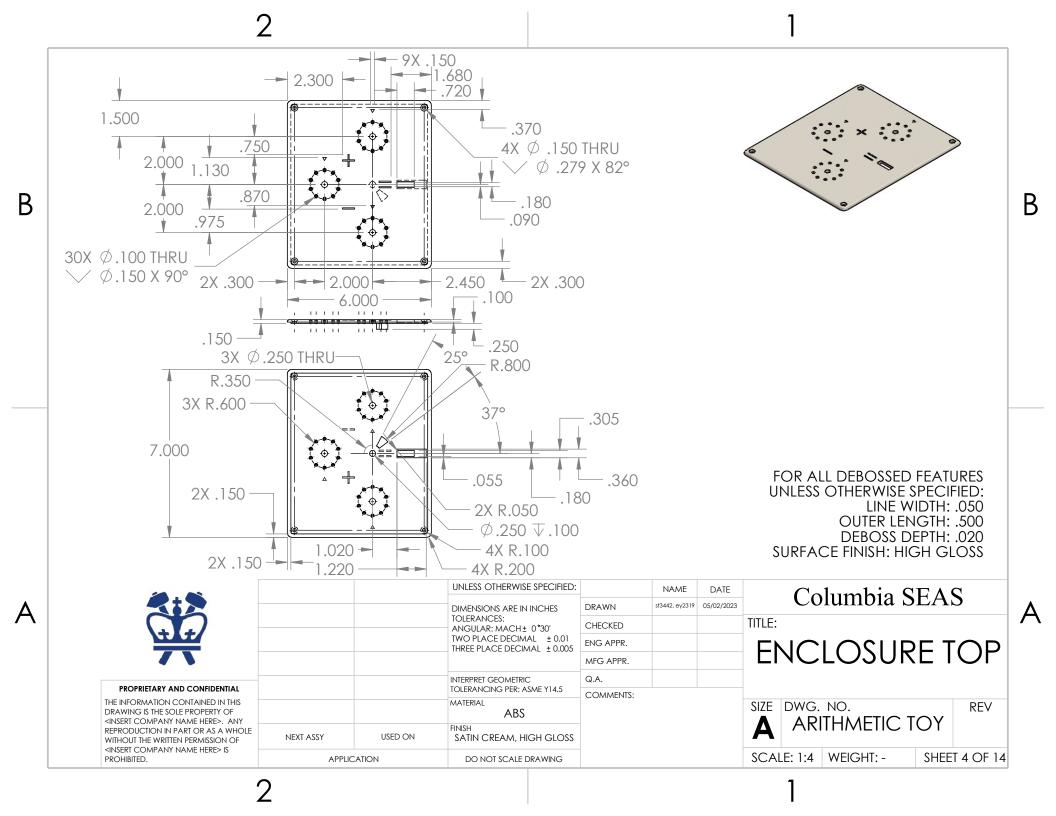
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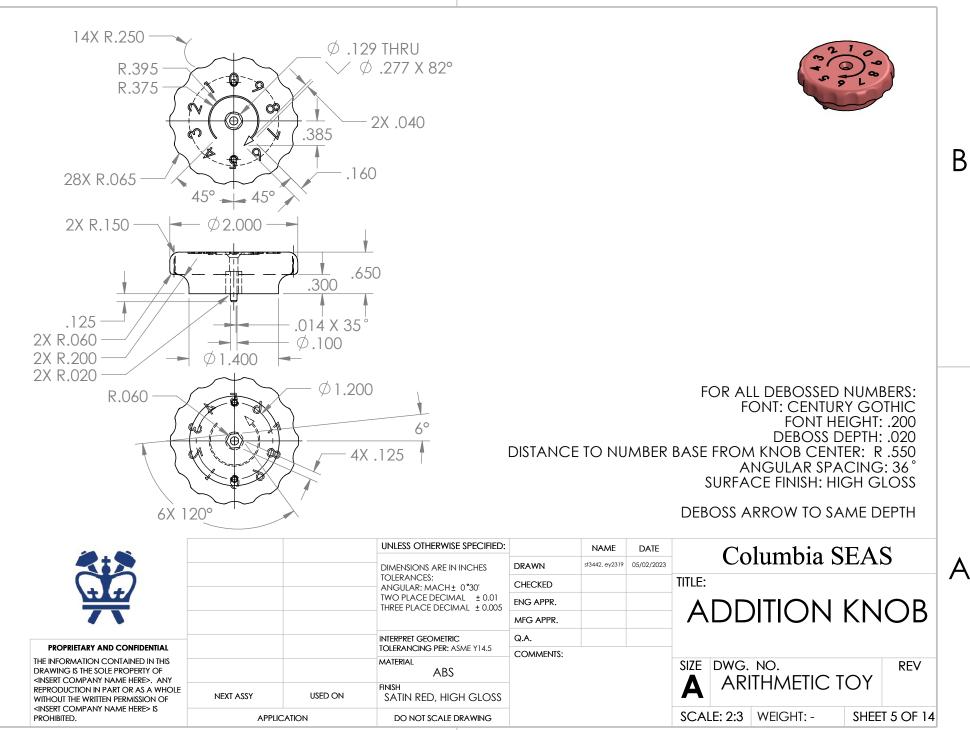
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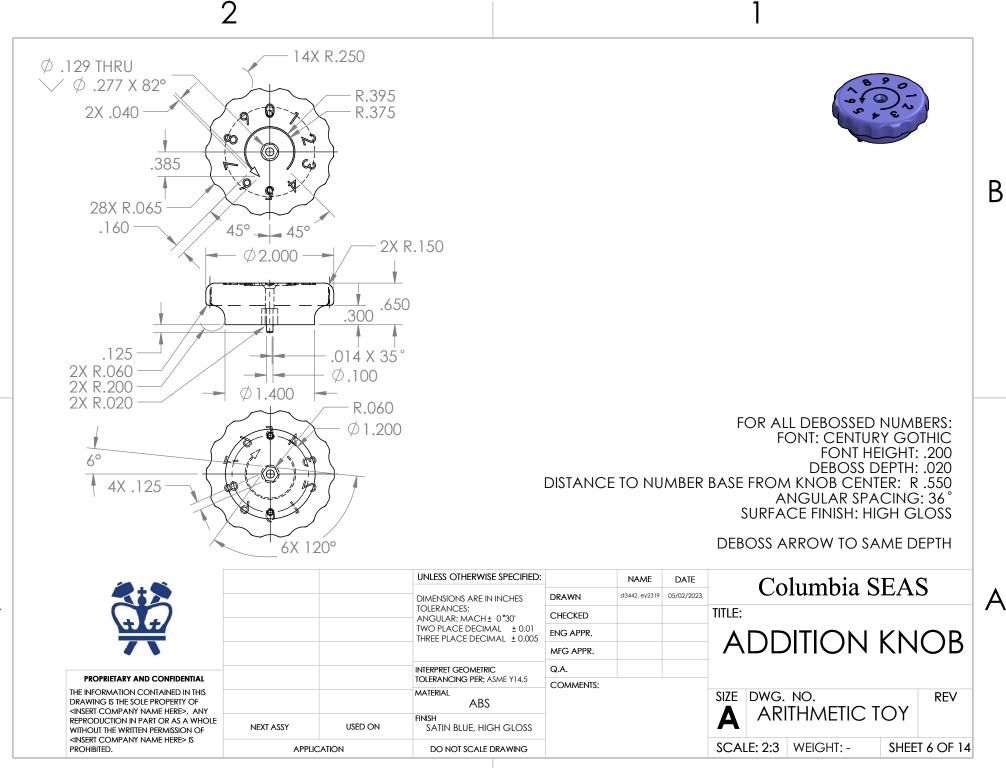
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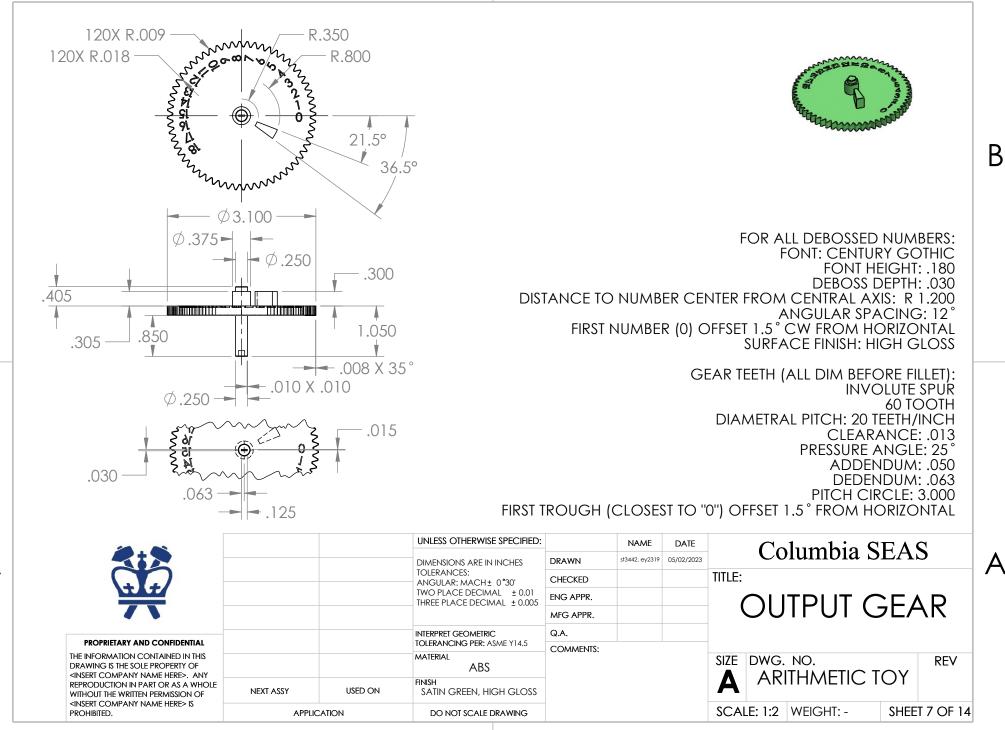




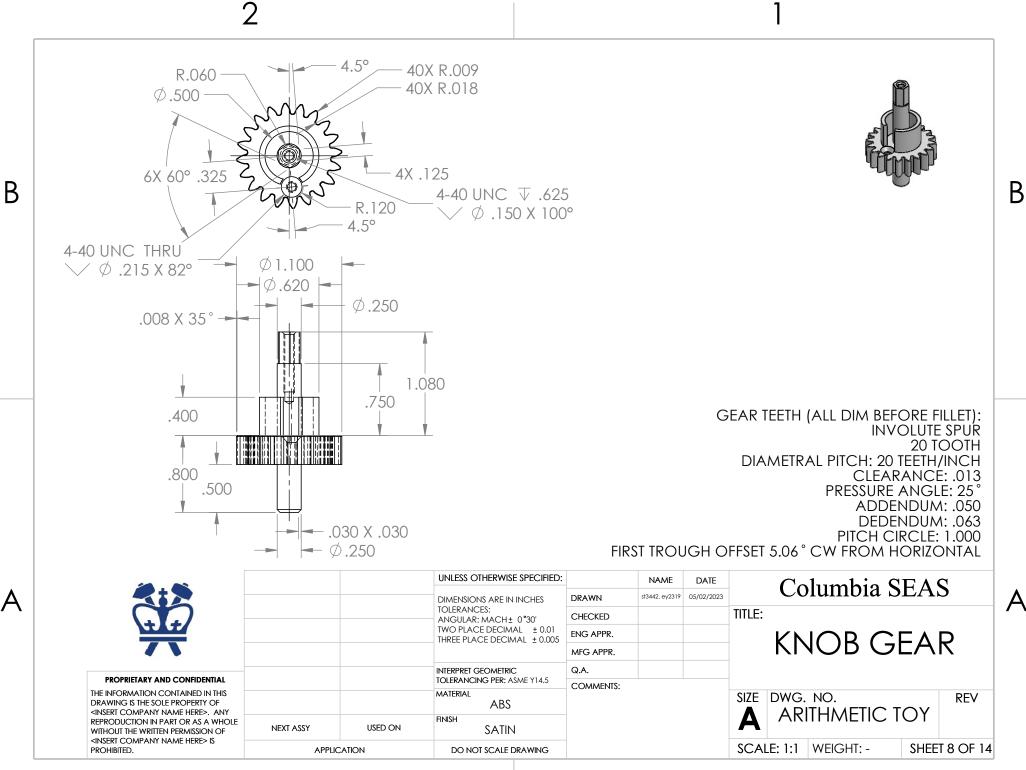
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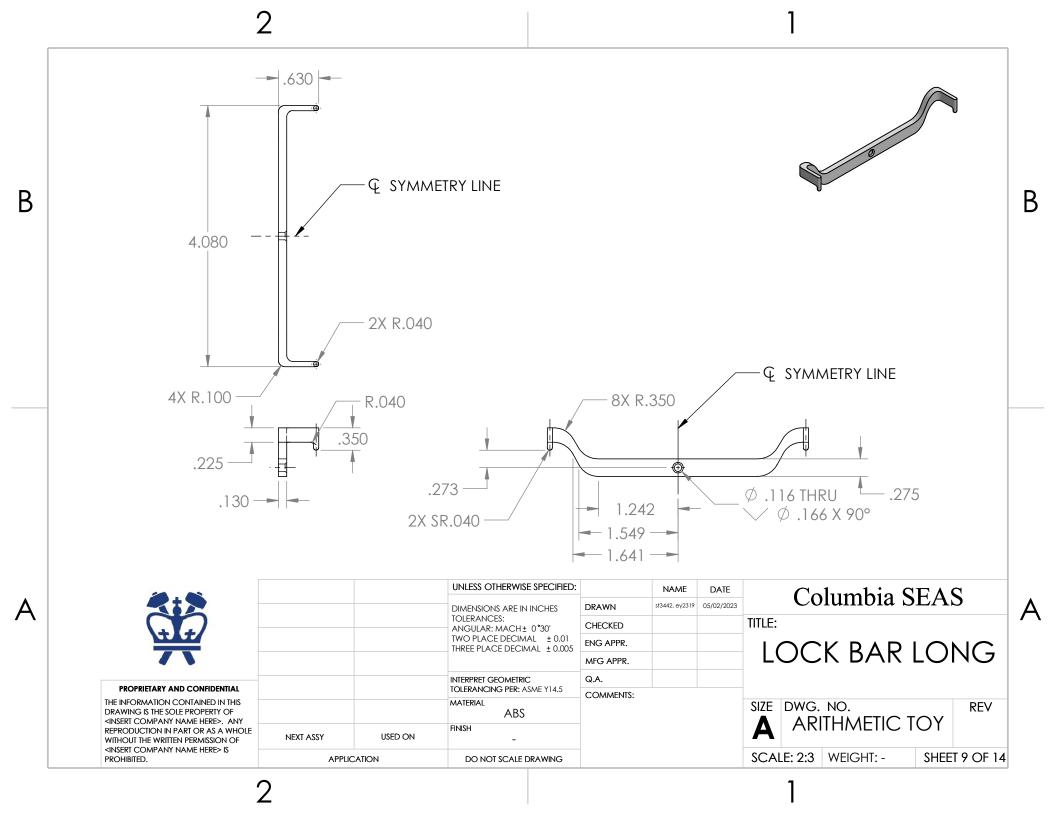


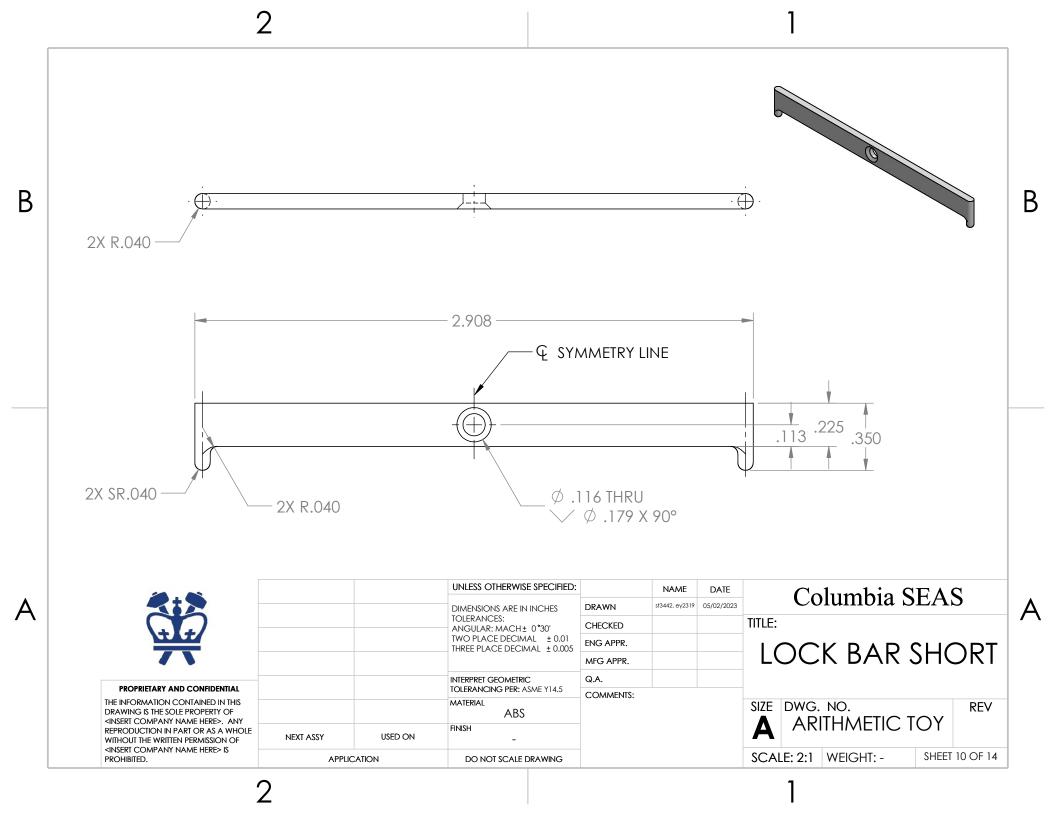
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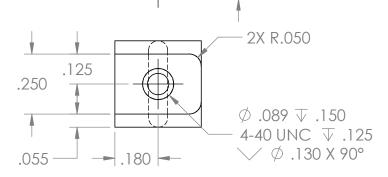
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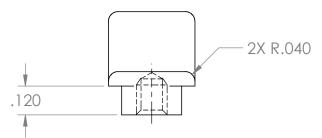














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		DIMENSIONS ARE IN INCHES	DR
		TOLERANCES:  ANGULAR: MACH± 0°30'	CH
		TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.00	EN
			MF
		INTERPRET GEOMETRIC	Q.
		TOLERANCING PER: ASME Y14.5  MATERIAL  ABS	CC
NEXT ASSY	USED ON	FINISH MEDIUM GLOSS GREEN	-
APPLICATION		DO NOT SCALE DRAWING	

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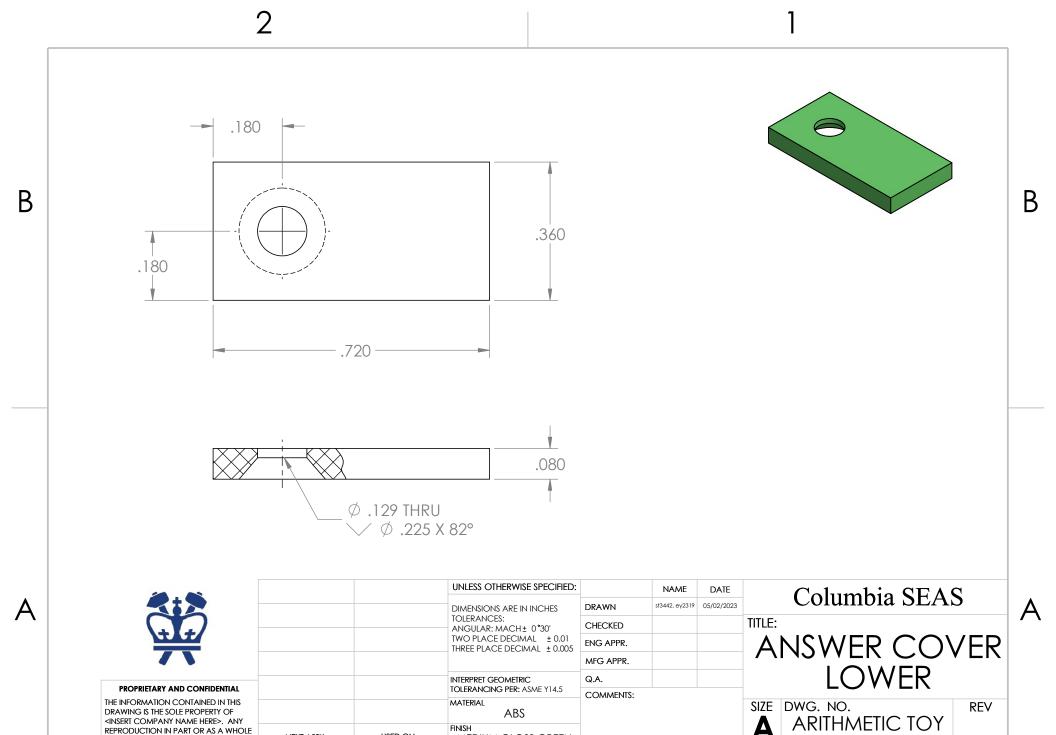
	NAME	DATE	
DRAWN	st3442, ey2319	05/02/2023	
CHECKED			1
ENG APPR.			
MFG APPR.			
Q.A.			
COMMENTS:			-
	CHECKED ENG APPR. MFG APPR. Q.A.	DRAWN s13442, ey2319 CHECKED ENG APPR. MFG APPR. Q.A.	DRAWN s13442.ey2319 05/02/2023 CHECKED ENG APPR. MFG APPR. Q.A.

Columbia SEAS	
TITLE:	

ANSWER COVER **UPPER** 

	DWG.	NO. THMETIC T	OY	REV
SCAI	F: 5:2	WFIGHT: -	SHEET	11 OF 14

Α



MEDIUM GLOSS GREEN

DO NOT SCALE DRAWING

**NEXT ASSY** 

**USED ON** 

APPLICATION

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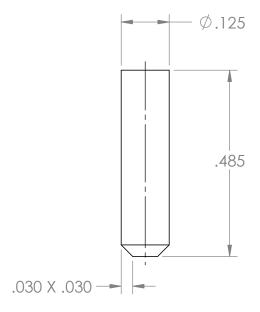
SCALE: 4:1 WEIGHT: -

SHEET 12 OF 14









11	

В

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		UNLESS OTHERWISE SPECIFIED:	
	DIMENSIONS ARE IN INC		D
		TOLERANCES:  ANGULAR: MACH± 0°30'	C
		TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	Е
		THREE TEXASE BEOMY NE 2 0,000	٨
		INTERPRET GEOMETRIC	C
		TOLERANCING PER: ASME Y14.5	C
		Rubber, POM, UHMWPE	٨
NEXT ASSY	USED ON	FINISH -	C
APPLIC	CATION	DO NOT SCALE DRAWING	

):		NAME	DATE	
	DRAWN	st3442, ey2319	05/02/2023	
	CHECKED			TI
	ENG APPR.			
	MFG APPR.			
	Q.A.			
	COMMENTS:			
	MATERIAL CHOICE DEPENDENT ON			S
	ON DESIRED KN	IOB RESIST.	ANCE	1

Columbia SEAS

TITLE:

## FRICTION PIN

SIZE DWG. NO. REV ARITHMETIC TOY SCALE: 4:1 WEIGHT: -SHEET 13 OF 14

В

COMPRESSION SPRING
ZINC-PLATED STEEL MUSIC-WIRE
OD =  $\emptyset$ .300
ID =  $\emptyset$ .256
LENGTH = .500 UNSTRETCHED
SPRING RATE = 6.5 LB/IN
QTY = 3

- FLAT HEAD PHILLIPS SCREW
  6-32 UNC
  ZINC-PLATED STEEL
  LENGTH = .500
  QTY = 4
- PAN HEAD PHILLIPS SCREW
  4-40 UNC
  ZINC-PLATED STEEL
  LENGTH = .875
  QTY = 1
- PAN HEAD PHILLIPS SCREW
  4-40 UNC
  ZINC-PLATED STEEL
  LENGTH = .4375
  QTY = 2

FLAT HEAD PHILLIPS SCREW
4-40 UNC
ZINC-PLATED STEEL
LENGTH = .625
QTY = 6

- FLAT HEAD PHILLIPS SCREW
  4-40 UNC
  ZINC-PLATED STEEL
  LENGTH = .1875
  QTY = 1
- HEX NUT
  4-40 UNC
  ZINC-PLATED STEEL
  QTY = 6

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		UNLESS OTHERWISE SPECIFIED:	
		DIMENSIONS ARE IN INCHES	D
	TOLERANCES: ANGULAR: MAC	TOLERANCES:  ANGULAR: MACH± 0°30'	С
		TWO PLACE DECIMAL ± 0.01 THREE PLACE DECIMAL ± 0.005	El
			M
_		INTERPRET GEOMETRIC	Q
		TOLERANCING PER: ASME Y14.5  MATERIAL	С
		MATERIAL -	
NEXT ASSY	USED ON	FINISH -	
APPLIC	CATION	DO NOT SCALE DRAWING	

):		NAME	DATE	
	DRAWN	st3442, ey2319	05/02/2023	
	CHECKED			TITLE:
5	ENG APPR.			
	MFG APPR.			
	Q.A.			
	COMMENTS:			
				SI7E

Columbia SEAS

STANDARD PARTS SHEET

	DWG.	NO. THMETIC T	OY	REV
SCAI	LE: -	WEIGHT: -	SHEET	14 OF 14

2

В

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