

2

1

ITEM NO.	PART NUMBER	1:18/QTY.
1	Chassis	1
2	Wheel Leg (Front)	1
3	Wheel Leg (Back)	1
4	Motor and Gear Platform	1
5	Wheel Pair and Shaft	2
6	Motor	1
7	Gear Shaft (Top)	1
8	Gear Shaft (Bottom)	1
9	Gear Shaft Cap	2
10	Motor Spacer	1
11	Battery Components	1
12	Gear Train	1
13	Cargo puller	1
14	Side plate	2

Isometric view of a mechanical assembly. The drawing shows a rectangular chassis (1) with a motor and gear platform (4) mounted on top. A gear train (12) is visible, consisting of a motor spacer (10), gear shaft cap (9), gear shaft (7), and gear shaft (8). A cargo puller (13) is attached to the side. The assembly is supported by two wheel pairs (5) with wheels (2) and wheel legs (3). The dimensions shown are 185.83 (length), 77.05 (width), and 102 (height).

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NEXT ASSY	USED ON	APPLICATION

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM
Please refer to individual parts for tolerances.

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL
PLA, ABS, Aluminum sheet, Steel

FINISH

DO NOT SCALE DRAWING

NAME	DATE
DRAWN RP	25/01/18
CHECKED	
ENG APPR.	
MFG APPR.	
Q.A.	
COMMENTS: While there also are 64:1 and 48:1 gear ratio configuration, this drawing will only feature 18:1 configuration. The components hidden in this view will be shown in the following page.	

TITLE:
Whiteout

SIZE
A

DWG. NO.
1

REV
1

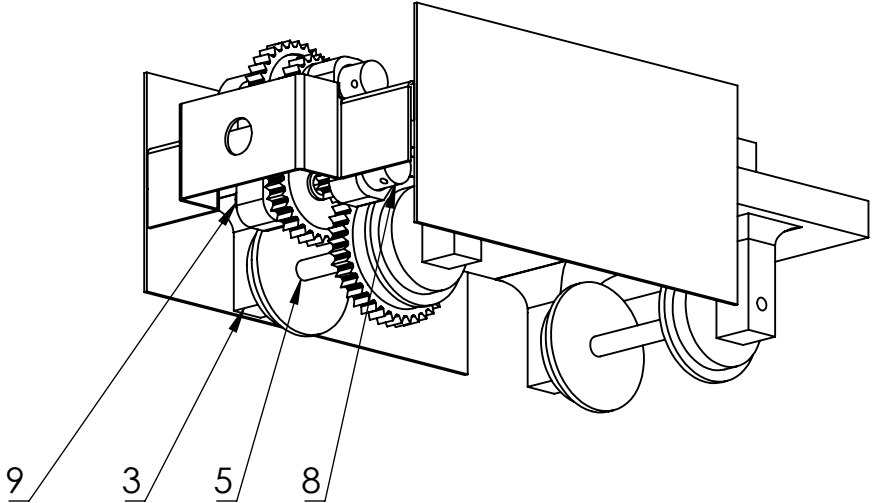
SCALE: 1:2

WEIGHT:

SHEET 1 OF 8

B

ITEM NO.	PART NUMBER	1:18/QTY.
1	Chassis	1
2	Wheel Leg (Front)	1
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5	Wheel Pair and Shaft	2
6	Motor	1
7	Gear Shaft (Top)	1
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9	Gear Shaft Cap	2
10	Motor Spacer	1
11	Battery Components	1
12	Gear Train	1
13	Cargo puller	1
14	Side plate	2



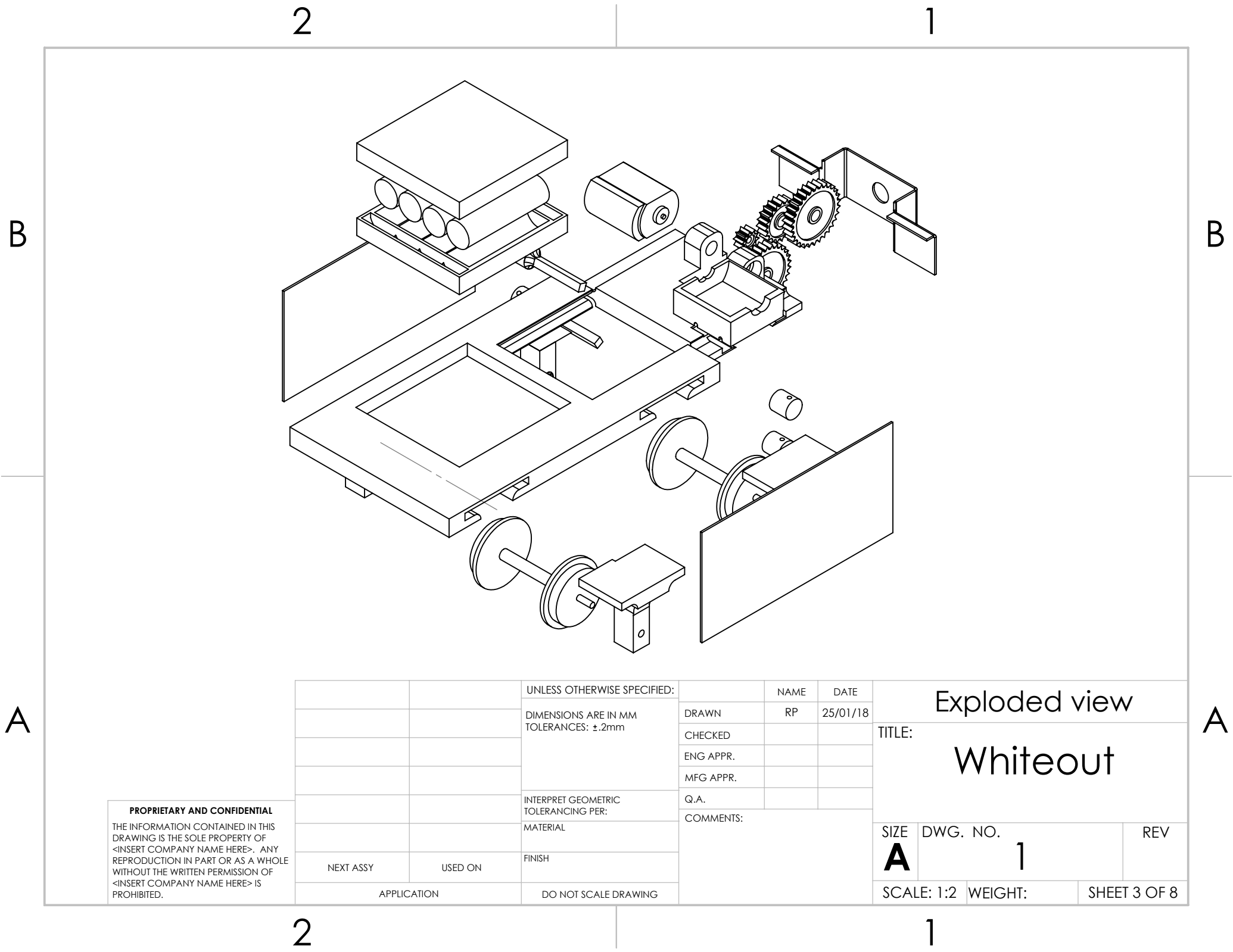
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		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MM Please refer to individual parts for tolerances.	DRAWN	NAME	DATE	Isometric view		
			CHECKED	RP	25/01/18	TITLE: Whiteout		
			ENG APPR.					
			MFG APPR.					
			INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.				
		MATERIAL PLA, ABS, Aluminum sheet, Steel	COMMENTS: While there also are 64:1 and 48:1 gear ratio configuration, this drawing will only feature 18:1 configuration.			SIZE	DWG. NO.	REV
		FINISH				A	1	1
NEXT ASSY	USED ON		The components hidden in this view was shown in the previous page.					
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:2	WEIGHT:	SHEET 2 OF 8

B

A



A

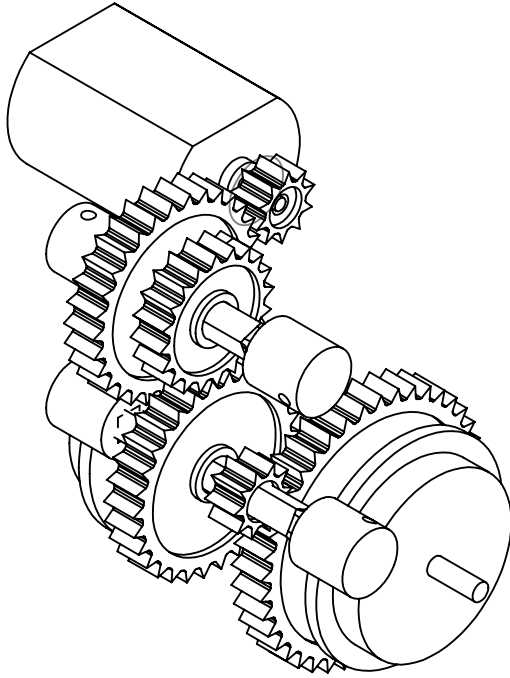
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Exploded view Whiteout	
		DIMENSIONS ARE IN MM TOLERANCES: ±.2mm	DRAWN	RP	25/01/18		
			CHECKED				
			ENG APPR.				
			MFG APPR.				
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			TITLE:	
		MATERIAL	COMMENTS:				
		FINISH				SIZE A	DWG. NO. 1
NEXT ASSY	USED ON					REV	
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:2	WEIGHT:
						SHEET 3 OF 8	

2

1



The gear ratio is 18:1, consisting of:
 10t (at motor) mesh with 30t;
 30t compound with 20t;
 20t mesh with 30t;
 30t compound with 10t;
 10t mesh with 40t (at wheel shaft)
 (t stands for teeth; ie. 10t has 10 teeth).

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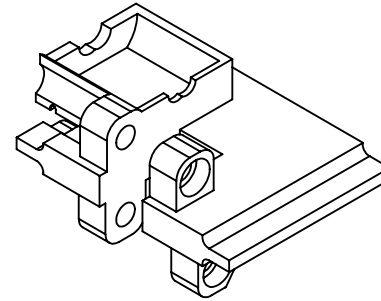
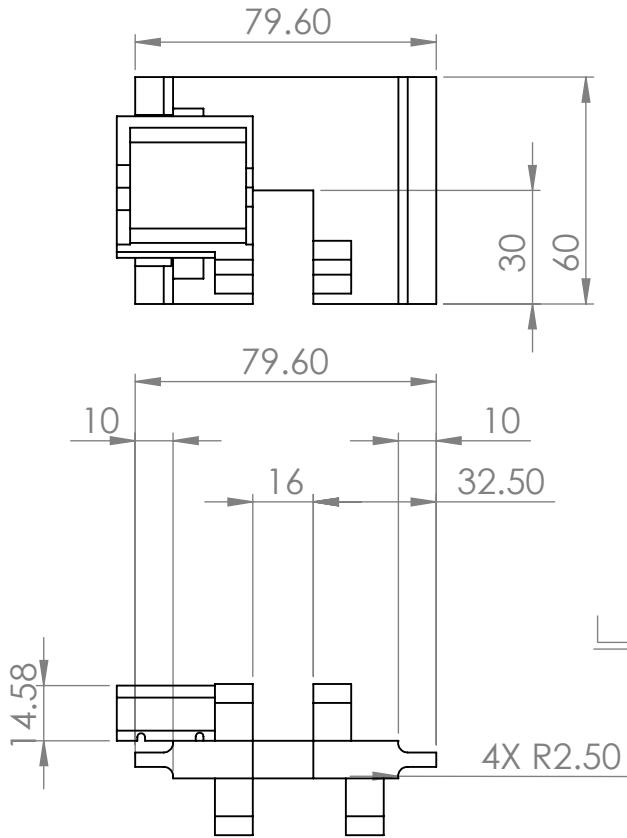
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Gear train view TITLE: Whiteout				
		DIMENSIONS ARE IN MM TOLERANCES: $\pm .2\text{MM}$		DRAWN	RP			25/01/18		
				CHECKED						
				ENG APPR.						
				MFG APPR.						
				Q.A.			SIZE A	DWG. NO. 1	REV	
				COMMENTS:						
NEXT ASSY	USED ON	FINISH								
APPLICATION		DO NOT SCALE DRAWING					SCALE: 1:1		WEIGHT:	SHEET 4 OF 8

B

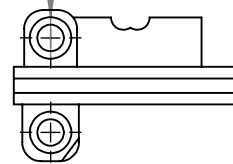
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A



4X
Ø7 THRU
Ø11 5



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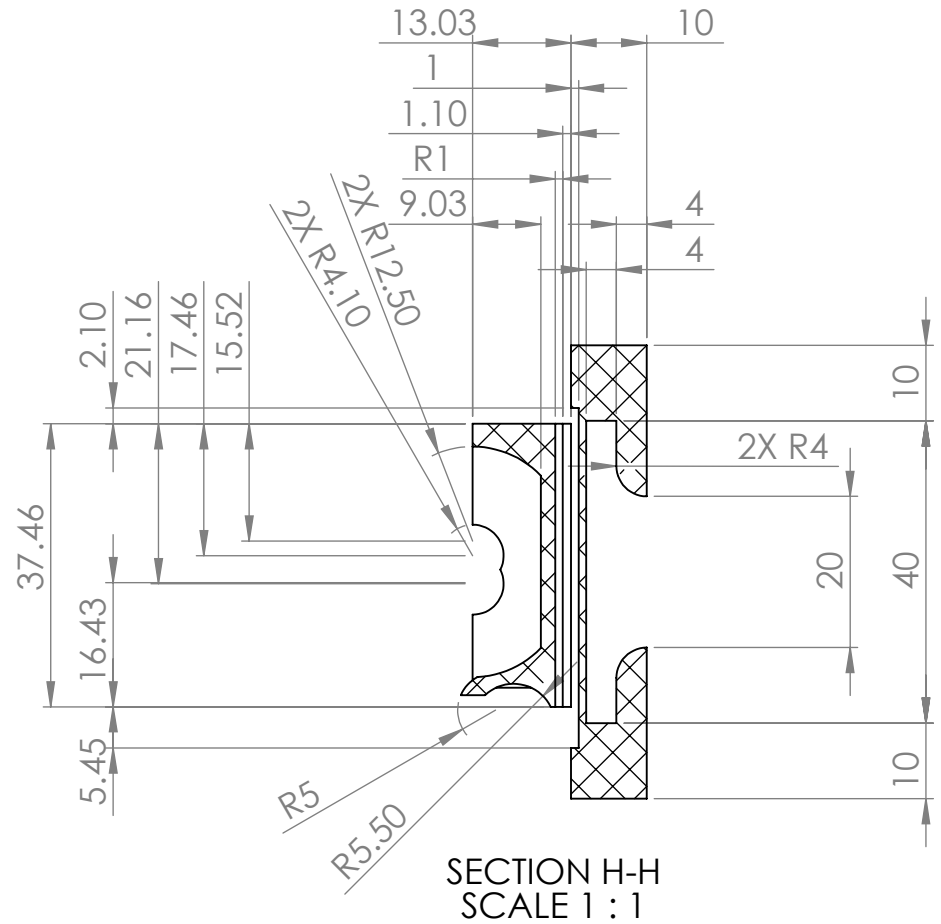
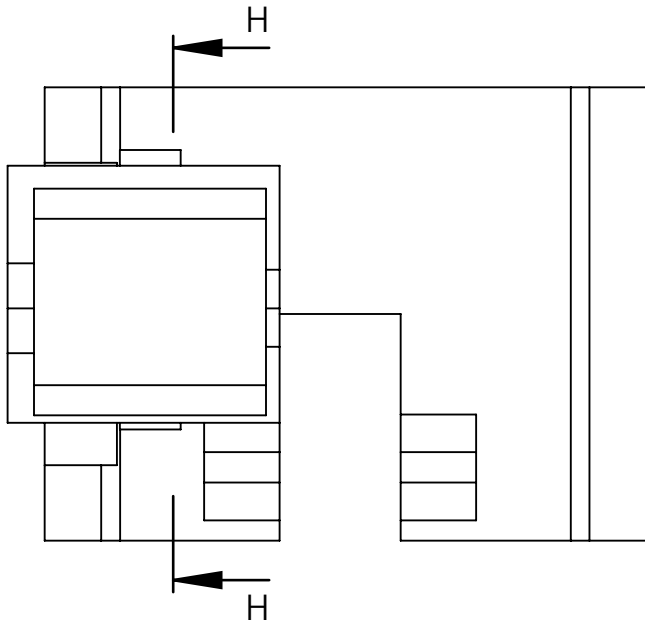
		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MM TOLERANCES: ±.2MM		NAME	DATE	Motor and Gear Plate TITLE: Whiteout		
			DRAWN	RP	25/01/18			
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.			SIZE DWG. NO. REV		
		COMMENTS:						
		MATERIAL ABS				1		
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:2 WEIGHT: SHEET 5 OF 8		

2

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B

A



B

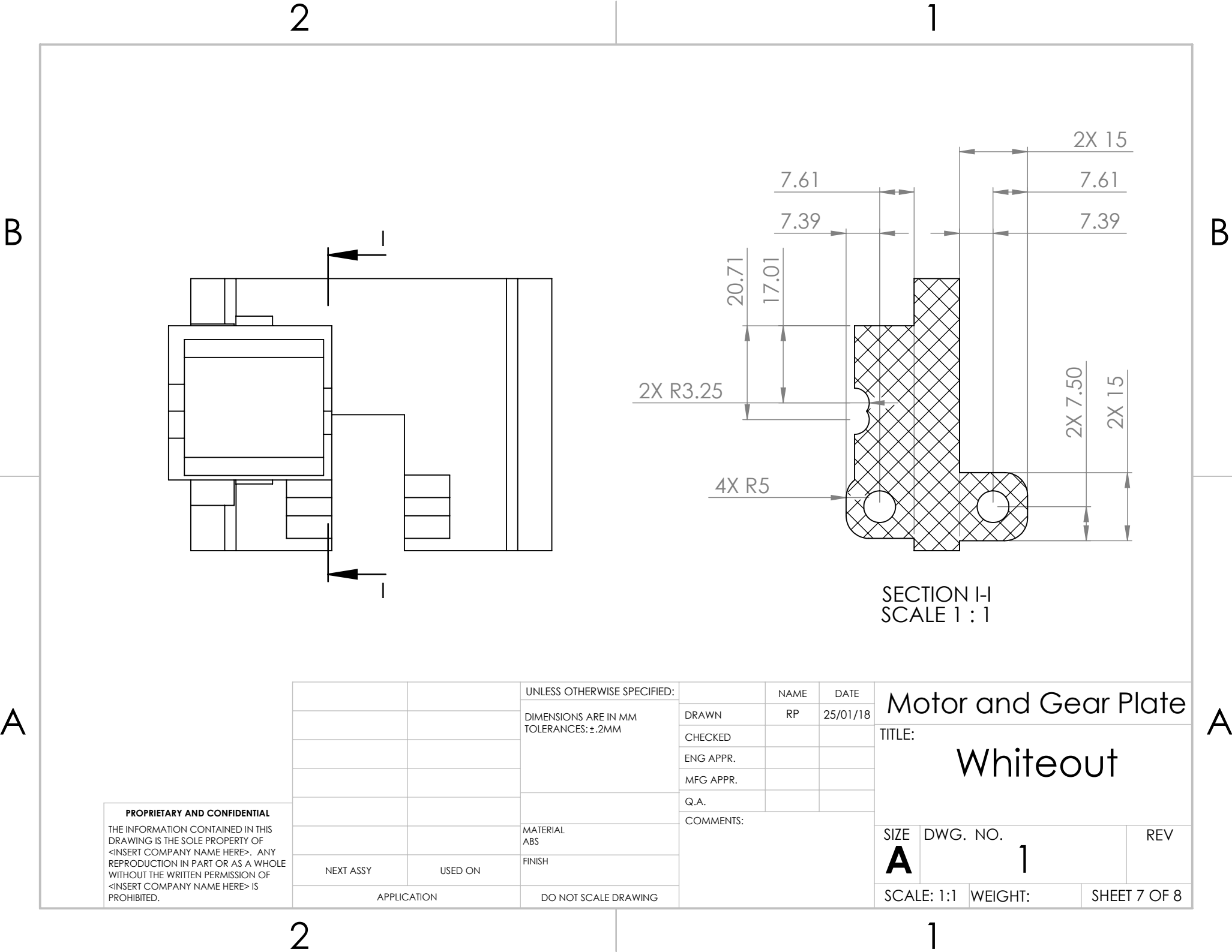
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Motor and Gear Plate			
		DIMENSIONS ARE IN MM TOLERANCES: ±.2MM	DRAWN	RP	25/01/18	TITLE:			
			CHECKED			Whiteout			
			ENG APPR.						
			MFG APPR.						
			Q.A.						
		MATERIAL ABS	COMMENTS:			SIZE	DWG. NO.	REV	
			FINISH				A	1	
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:1						
						WEIGHT:		SHEET 6 OF 8	

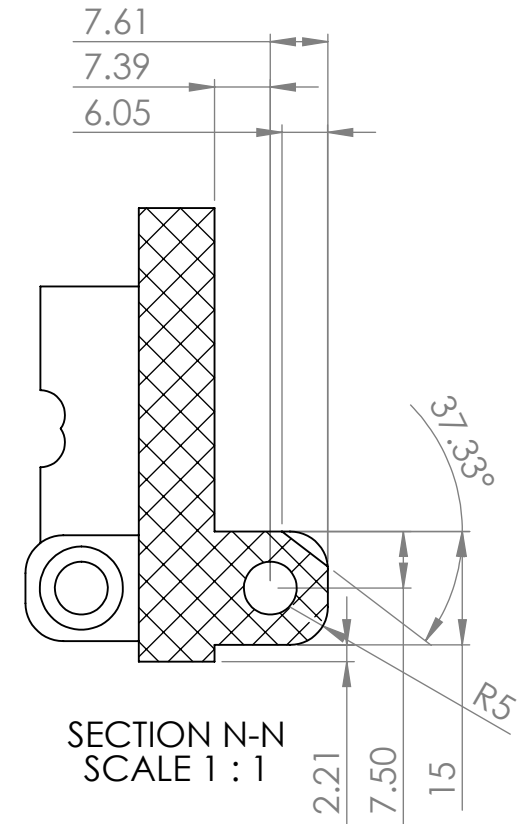
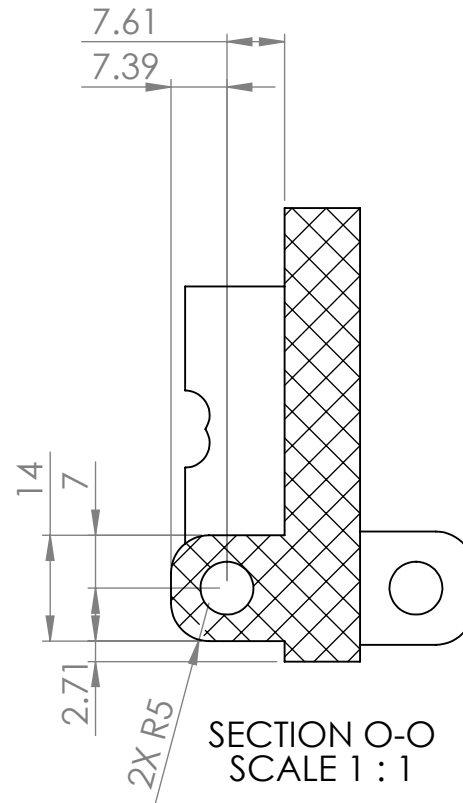
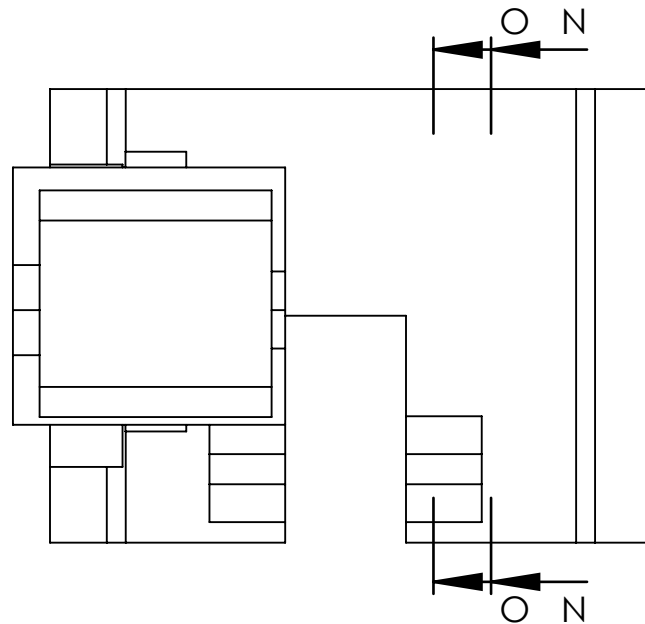
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NEXT ASSY

USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM
TOLERANCES: $\pm .2$ MM

MATERIAL
ABS

FINISH

DO NOT SCALE DRAWING

DRAWN

CHECKED

ENG APPR.

MFG APPR.

Q.A.

COMMENTS:

NAME

RP

DATE

25/01/18

Motor and Gear Plate

TITLE:

Whiteout

SIZE

A

DWG. NO.

1

REV

SCALE: 1:1

WEIGHT:

SHEET 8 OF 8

2

1