

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 the Whiteout robot chassis assembly. The drawing shows a rectangular chassis with a motor and gear platform on top. Various components are labeled with numbers 1 through 14. Dimensions are provided: 185.83 (length), 77.05 (width), and 102 (height).

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NEXT ASSY

USED ON

APPLICATION

DO NOT SCALE DRAWING

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

DRAWN  
CHECKED  
ENG APPR.  
MFG APPR.  
Q.A.  
COMMENTS:

NAME  
RP

DATE  
25/01/18

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:

Isometric view  
Whiteout

SIZE  
A

DWG. NO.  
1

REV  
1

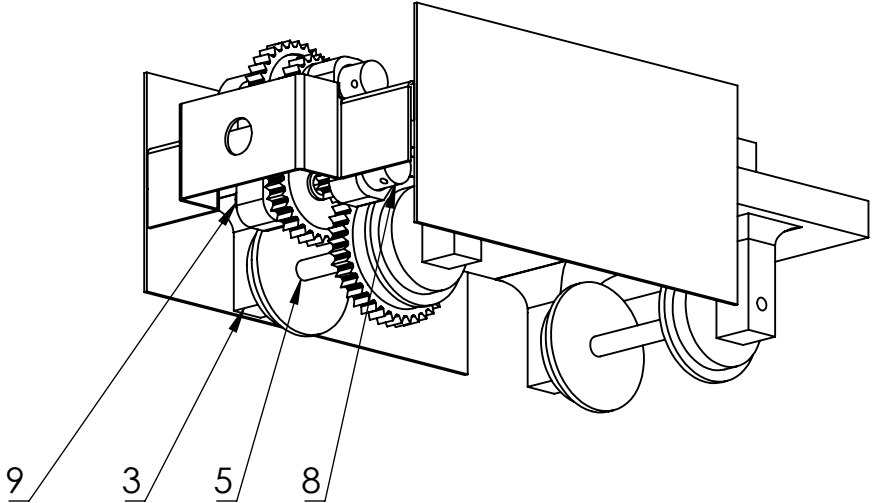
SCALE: 1:2

WEIGHT:

SHEET 1 OF 8

B

ITEM NO.	PART NUMBER	1:18/QTY.
1	Chassis	1
2	Wheel Leg (Front)	1
3	Wheel Leg (Back)	1
4	Motor and Gear Platform	1
5	Wheel Pair and Shaft	2
6	Motor	1
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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



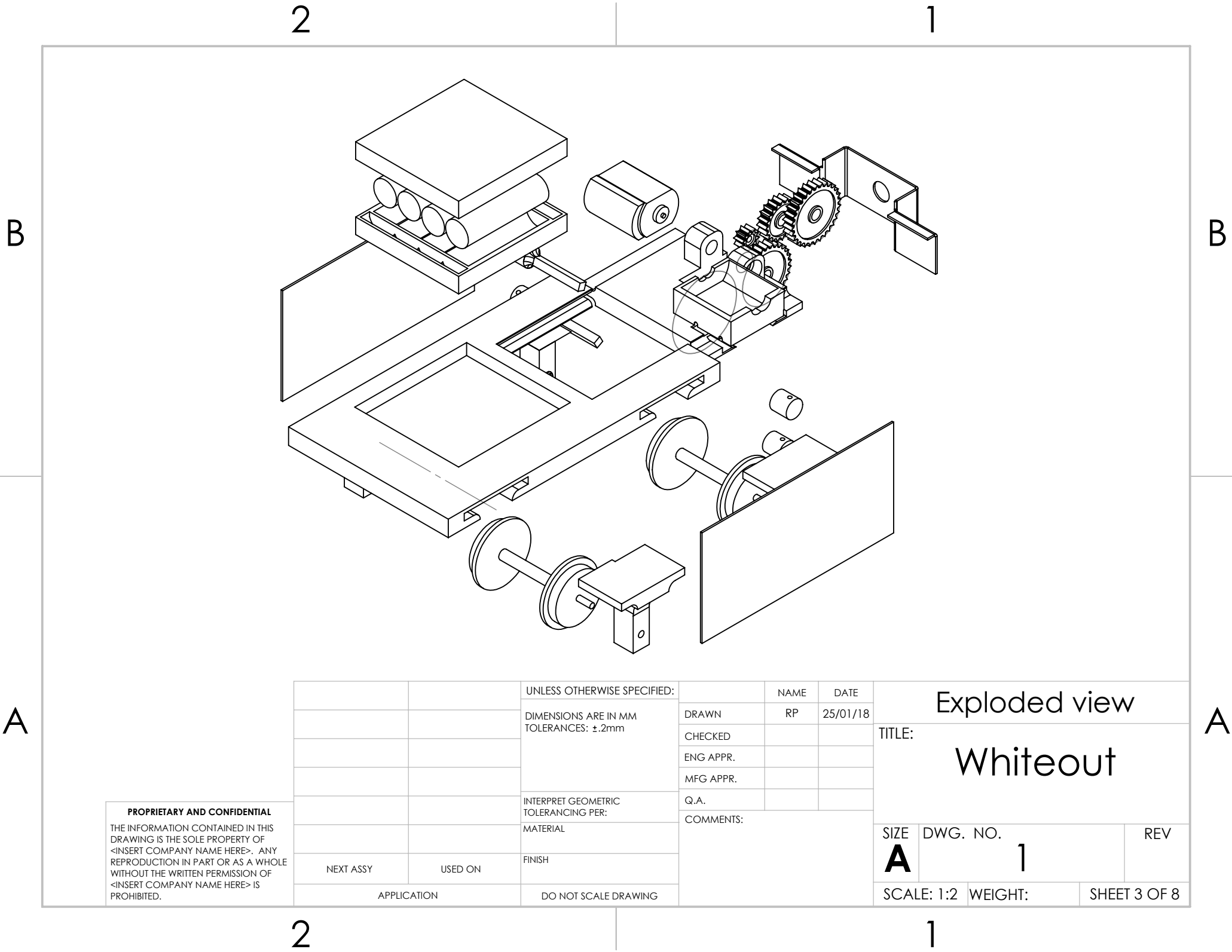
A

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Isometric view		
		DIMENSIONS ARE IN MM Please refer to individual parts for tolerances.	DRAWN	RP	25/01/18	TITLE:  Whiteout		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			SIZE <b>A</b>		
		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.					
		FINISH						
NEXT ASSY	USED ON					DWG. NO. <b>1</b>	REV <b>1</b>	
APPLICATION		DO NOT SCALE DRAWING	The components hidden in this view was shown in the previous page.			SCALE: 1:2	WEIGHT:	SHEET 2 OF 8

B

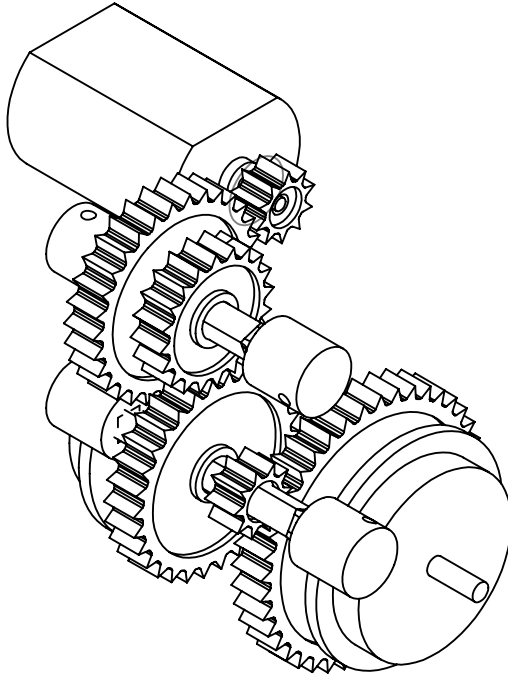
A



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN MM	DRAWN	RP	25/01/18
		TOLERANCES: $\pm .2\text{mm}$	CHECKED		
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
		MATERIAL	COMMENTS:		
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			

Exploded view		
TITLE:		
Whiteout		
SIZE	DWG. NO.	REV
A	1	
SCALE: 1:2	WEIGHT:	SHEET 3 OF 8



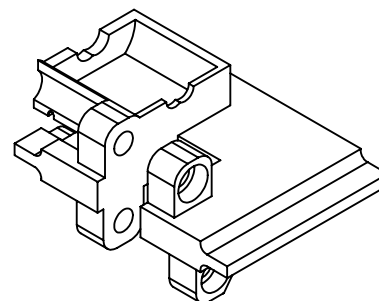
The gear ratio is 18:1, consisting of:  
 10t (at motor) mesh with 30t;  
 30t compound with 20t;  
 20t mesh with 30t;  
 30t compound with 10t;  
 10t mesh with 40t (at wheel shaft)  
 (t stands for teeth; ie. 10t has 10 teeth).

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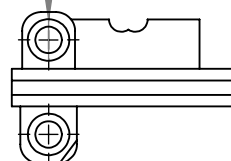
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Gear train view TITLE: <h1>Whiteout</h1>				
		DIMENSIONS ARE IN MM TOLERANCES: $\pm .2\text{MM}$		DRAWN	RP			25/01/18		
				CHECKED						
				ENG APPR.						
				MFG APPR.						
				Q.A.			SIZE <b>A</b>	DWG. NO. 1	REV	
				COMMENTS:						
NEXT ASSY	USED ON	FINISH					SCALE: 1:1		WEIGHT:	SHEET 4 OF 8
APPLICATION		DO NOT SCALE DRAWING								

1



4X  
 $\phi 7$  THRU  
 $\square \phi 11 \nabla 5$



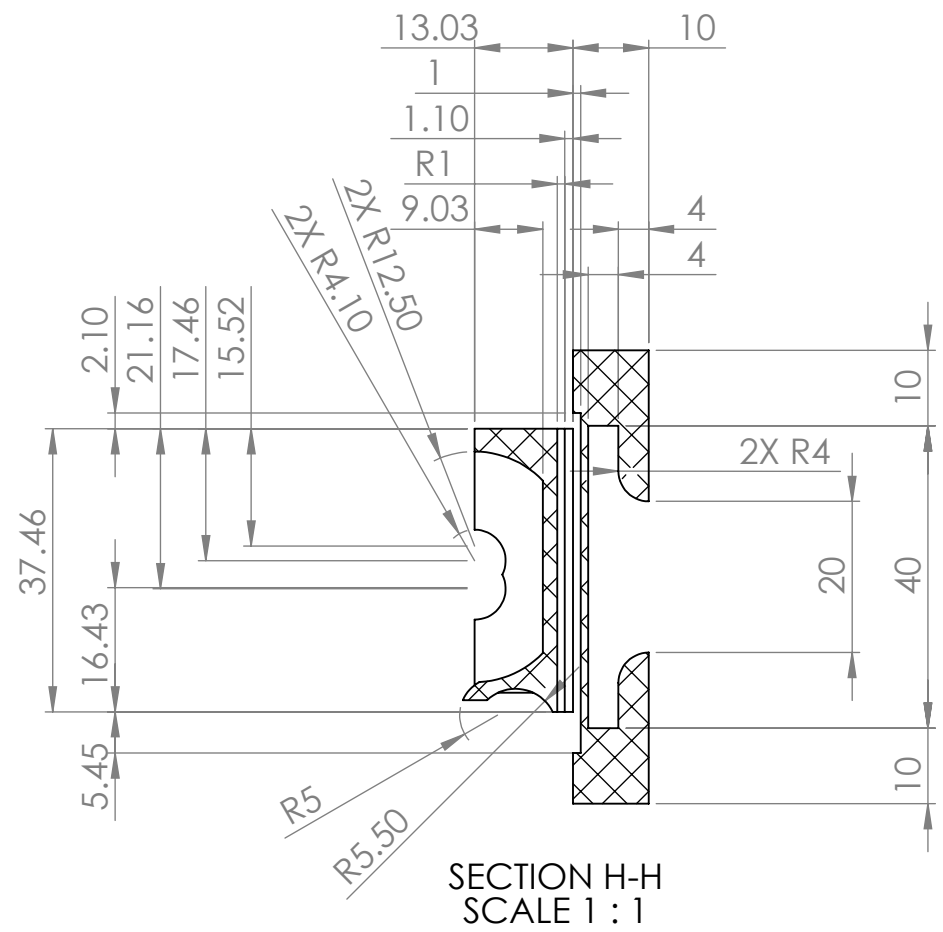
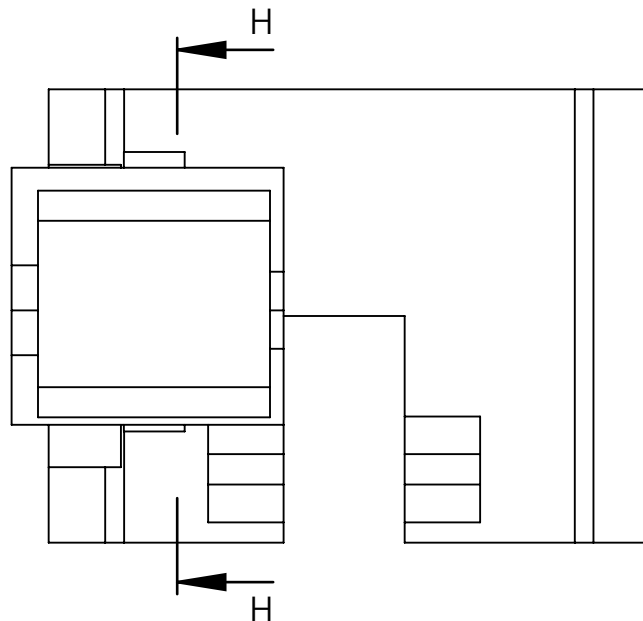
SHEET 5 OF 8

A

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1

B



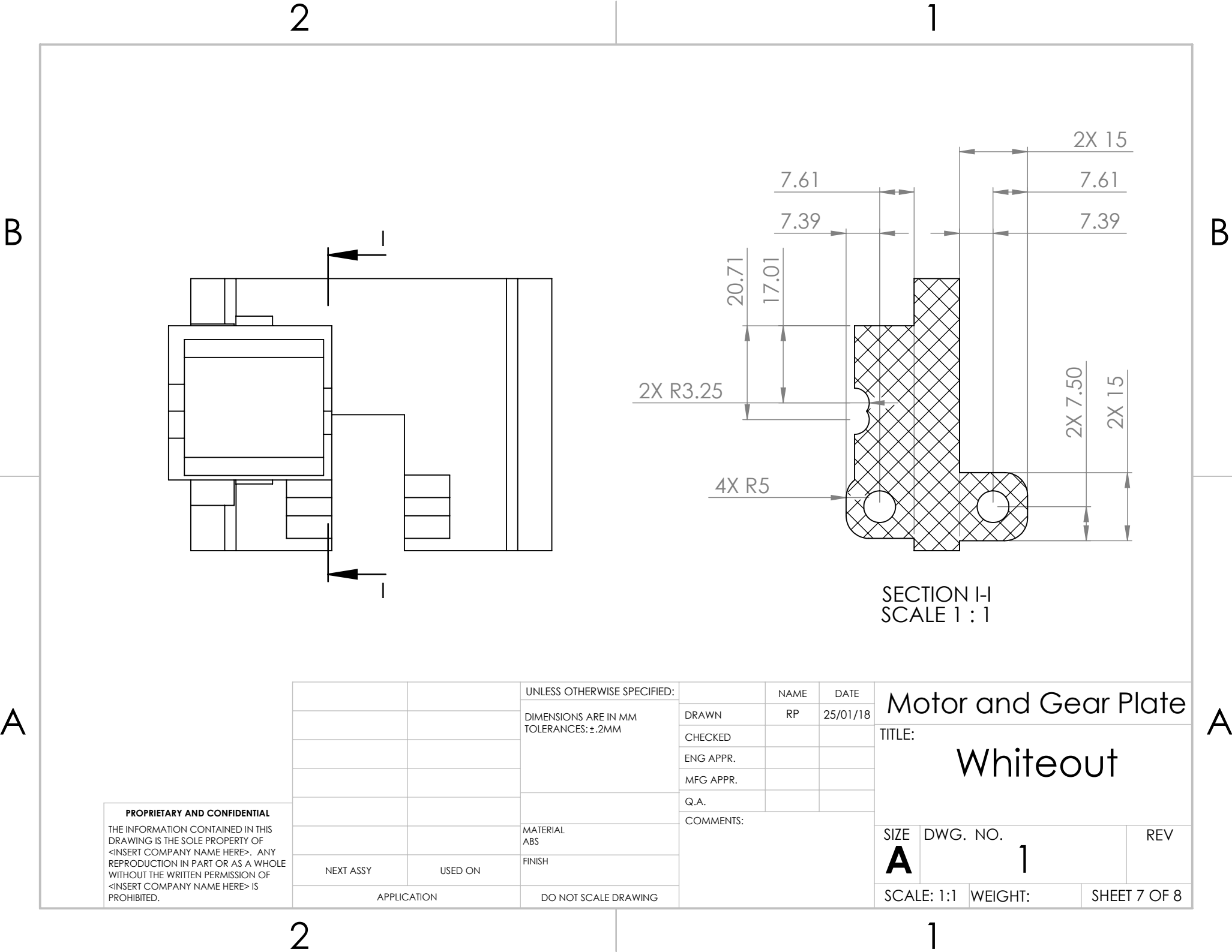
SECTION H-H  
SCALE 1 : 1

A

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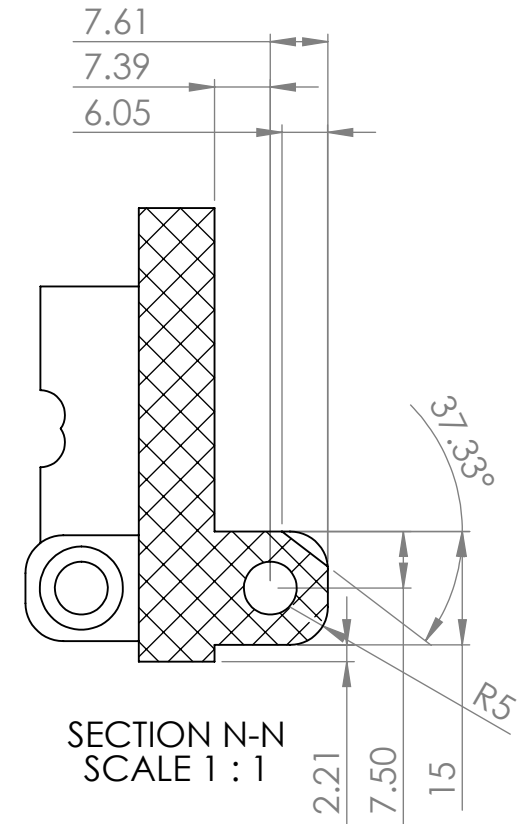
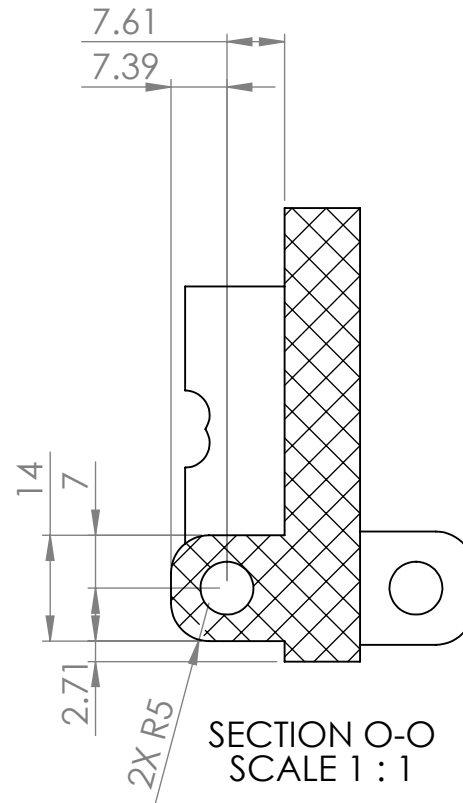
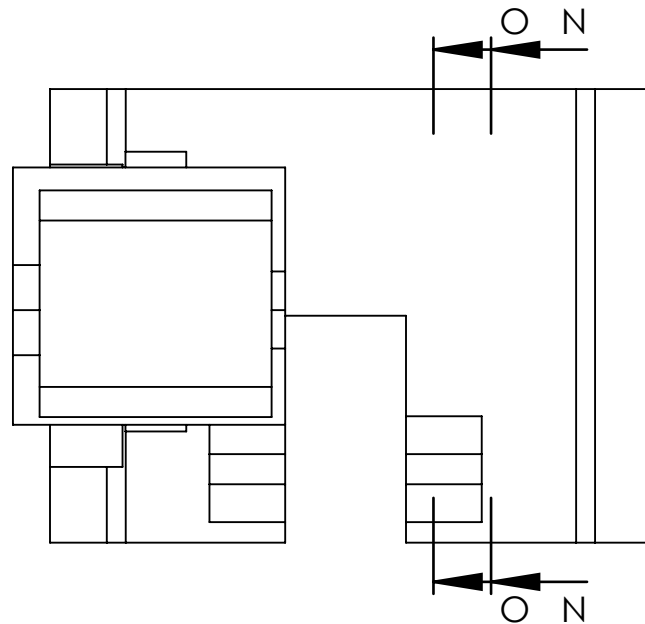
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Motor and Gear Plate		
		DIMENSIONS ARE IN MM TOLERANCES: ± .2MM	DRAWN	RP	25/01/18	TITLE:  Whiteout		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.			SIZE   DWG. NO.   REV		
			COMMENTS:					
		MATERIAL ABS				A	1	
		FINISH						
NEXT ASSY	USED ON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

1



B

B



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A

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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