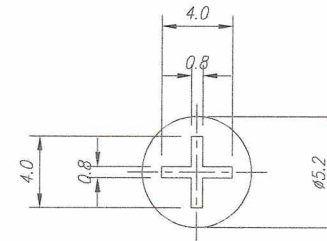
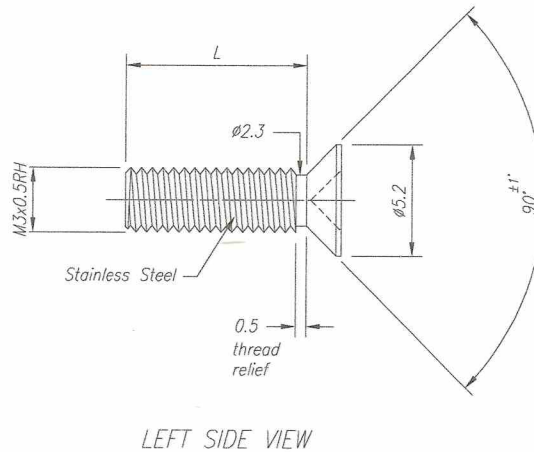


BATCH "B"



Schedule for L:			
Item	Description	L	Qty.
1	Screw for Spring Housing (Dyn. Cart A)	5.0mm	4 pcs.
2	Screw for Push Rod Housing (Dyn. Cart A)	7.0mm	6 pcs.
3	Screw for 81.5-gram Counterweight (Dyn. Cart B)	8.0mm	4 pcs.

\* Dimensions are in millimeters except otherwise specified.  
 \* Smoothen all sharp edges.  
 \* Surface Roughness @ 1.00 to 1.20  $\mu\text{m}$

GOVERNMENT PROPERTY

TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		$\pm 0.10$	$\pm 0.10$	$\pm 0.20$	$\pm 0.30$	$\pm 0.50$

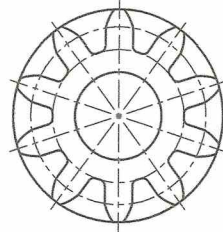
TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth Medium		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$

SYM	REVISION	DATE	BY

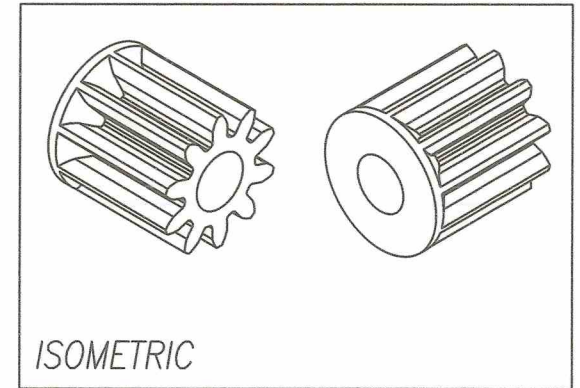
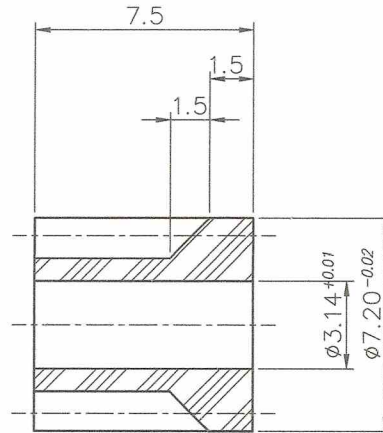
Date	SEPT 2021	Scale	NTS
Conceptualized by			
Drawn by	B.C. Lisondra		
Designed by	C.C. Checked by		
	J.N. Anoja		
Recommended by	A.B. Ybañez		
Approved by	R. C. La Rosa		

<b>RAIL AND CART SYSTEM</b>	
Item Name	DYN. CARTS - SCREWS (Market Items)
Material	Stainless Steel
File name	screws
<b>DepED-BLR</b>	

BATCH "B"



FRONT VIEW



**20deg. PA INVOLUTE FULL-DEPTH TEETH  
SPUR GEAR**

---

Material: ACETAL Thermoplastic  
 Color: Blue  
 Metric Module = 0.60  
 Outside Diameter = 7.20<sup>-0.02</sup>mm  
 Pitch Diameter = 6.00mm  
 Circular Pitch = 1.88mm  
 Addendum = 0.60mm  
 Dedendum = 0.75mm  
 Whole Depth of Tooth = 1.35mm  
 Tooth Thickness at Pitch Line = 0.94mm  
 (Circular Thickness)  
 Number of Teeth = 10

- \* Dimensions are in millimeters except otherwise specified.
- \* Smoothen all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20 μm


GOVERNMENT PROPERTY

TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		± 0.10	± 0.10	± 0.20	± 0.30	± 0.50

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		± 0.20	± 0.50	± 1.00	± 2.00
Medium					

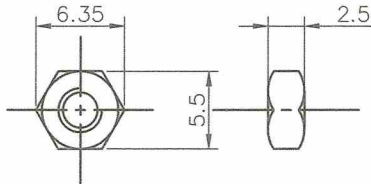
SYM	REVISION	DATE	BY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	Item Name	GEAR - B	Sheet	
Designed by		Material	Acetal Thermoplastic, Color: Natural Color	File name MC_gear B	
Checked by	J.N. Ariza	 <b>DepED-BLR</b>			
Recommended by	A.B. Ybanez				
Approved by	R. C. La Rosa				

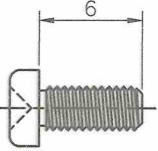
BATCH "B"



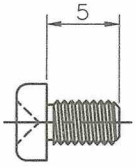
① RECESSED PAN HEAD  
SCREW – M3 x 0.5 RH  
Required: 1pc/assy  
Material: Stainless Steel, AISI 304/304L



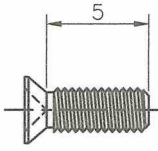
FRONT VIEW SIDE VIEW  
HEX NUT – M3 x 0.5  
Required: 1pc/assy  
Material: Stainless Steel



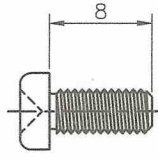
② RECESSED PAN HEAD  
SCREW – M3 x 0.5 RH  
Required: 6pcs/assy.  
Material: Stainless Steel, AISI 304/304L



③ RECESSED PAN HEAD  
SCREW – M3 x 0.5 RH  
Required: 4pcs/assy.  
Material: Stainless Steel, AISI 304/304L



④ COUNTERSUNK FLAT HEAD  
SCREW – M2 x 0.4  
Required: 4pcs/assy.  
Material: Stainless Steel, AISI 304/304L



⑤ RECESSED PAN HEAD  
SCREW – M3 x 0.5 RH  
Required: 6pcs/assy.  
Material: Stainless Steel, AISI 304/304L

\* Dimensions are in millimeters except otherwise specified.  
\* File all sharp edges.


TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	Over 0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		+ 0.10	+ 0.10	+ 0.20	+ 0.30	+ 0.50

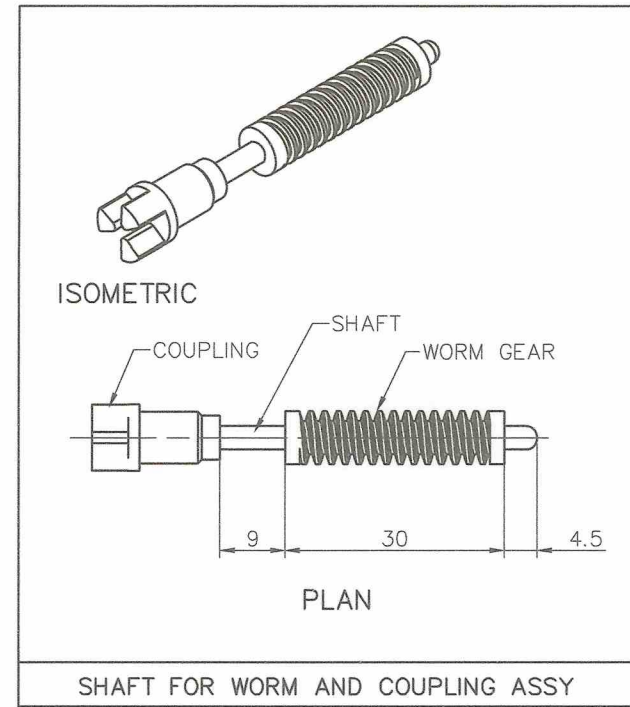
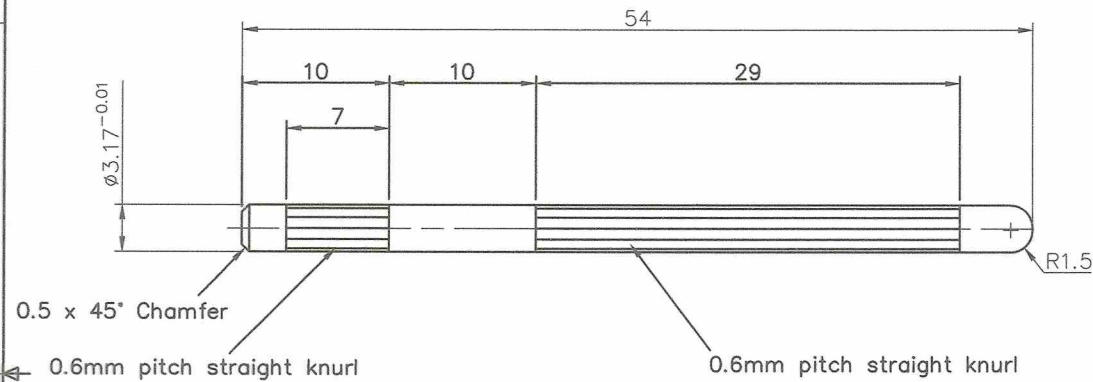
TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	Over 0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		+ 0.20	+ 0.50	+ 1.00	+ 2.00
Medium					

SYM	REVISION	DATE	BY

GOVERNMENT PROPERTY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	Item Name	(SCREW - MARKET ITEMS)	Sheet	
Designed by		Q.C. Checked by	J.N. Arioja	Material	(AS SHOWN ABOVE))
Recommended by	A.B. Ybañez	File name	MC_screwmarket	 <b>DepED-BLR</b>	
Approved by	R. C. La Rosa				

BATCH "B"



Note: Molded-in to the Worm and Worm-Shaft Coupling

### SHAFT FOR WORM


- \* Dimensions are in millimeters except otherwise specified.
- \* File all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20 μm

GOVERNMENT PROPERTY

TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		± 0.10	± 0.10	± 0.20	± 0.30	± 0.50

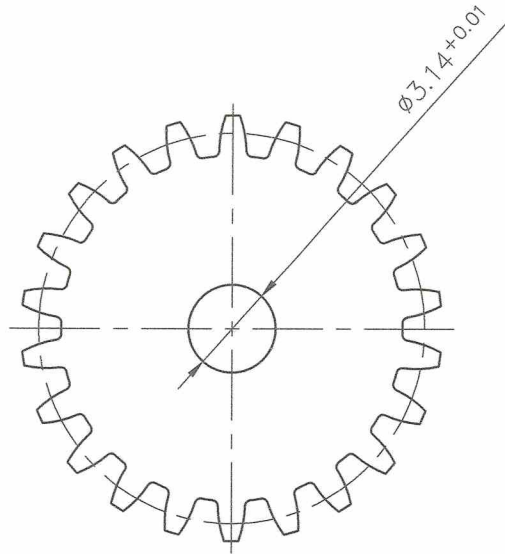
  

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		± 0.20	± 0.50	± 1.00	± 2.00
Medium					

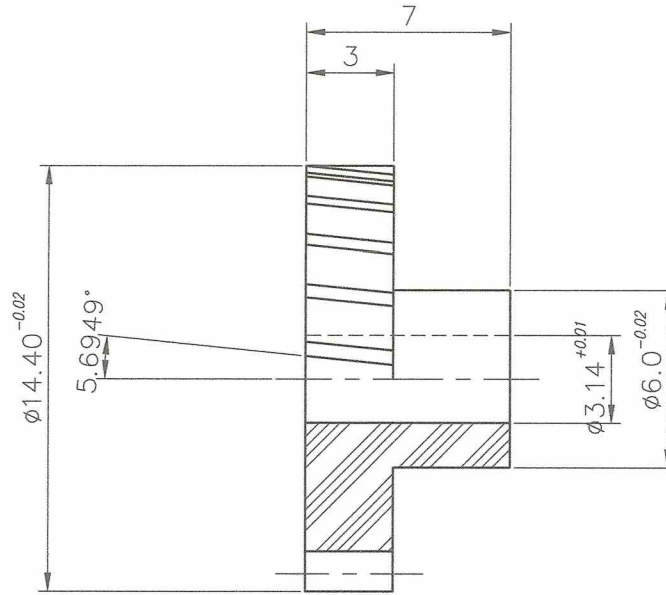
Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	Item Name	SHAFT FOR WORM		Sheet
Designed by		Material	Ø3.175mm (1/8") Stainless Steel, AISI 304/304L		File name
Checked by	J.N. Arjoja			MC_shaft4worm	
Recommended by	A.B. Ybanez	 <b>DepED-BLR</b>			
Approved by	R. C. La Rosa				



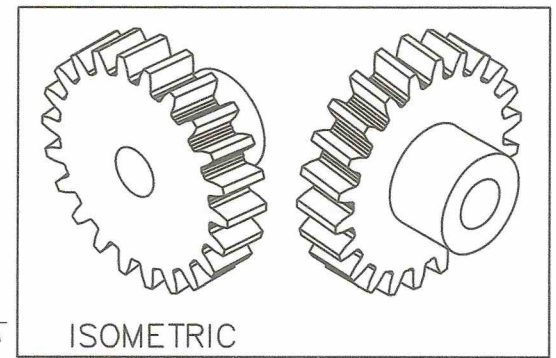
BATCH "B"



FRONT VIEW



HALF-SECTION VIEW



ISOMETRIC

**20deg. NORMAL P. A., 22 TEETH WORM GEAR**

Material = ACETAL Thermoplastic  
 Circular Pitch = 1.88mm  
 Outside Diameter =  $14.40^{-0.02}$ mm  
 Pitch Diameter = 13.20mm  
 Addendum = 0.60mm  
 Whole Depth of Tooth = 1.36mm  
 Normal Tooth Thickness (@ pitch line) = 0.935mm  
 Normal Circular Pitch = 1.87mm  
 Helix Angle = 5.6949 deg.


- \* Dimensions are in millimeters except otherwise specified.
- \* Smoothen all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20  $\mu$ m

GOVERNMENT PROPERTY

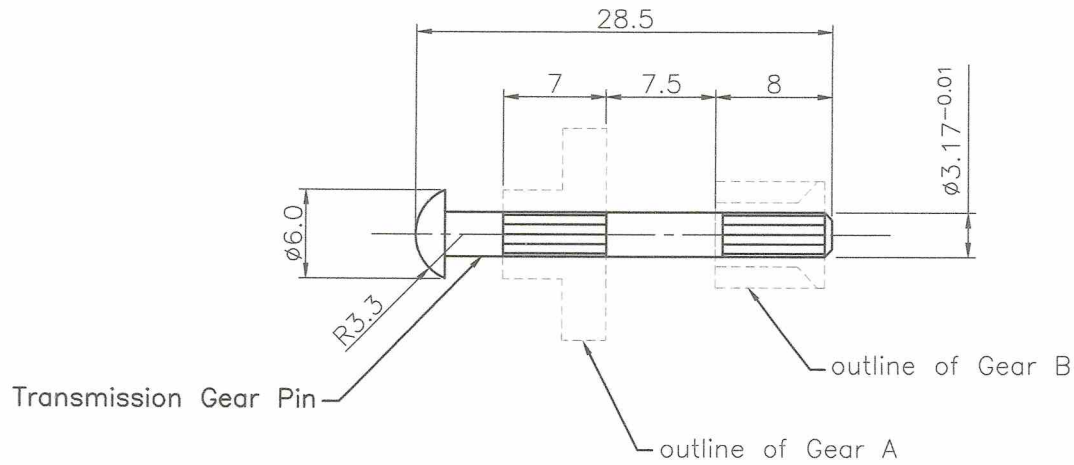
TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		$\pm 0.10$	$\pm 0.10$	$\pm 0.20$	$\pm 0.30$	$\pm 0.50$

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$
Medium		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$

SYM REVISION DATE BY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	Item Name	GEAR - A	Sheet	
Designed by	J.C. Checked by	Material	Acetal Thermoplastic, Color: Natural Color	File name MC_gear A	
Recommended by	A.B. Ybañez			<b>DepED-BLR</b>	
Approved by	R. C. La Rosa				

BATCH "B"



Note: The positioning of the gears as shown above is very important.

- \* Dimensions are in millimeters except otherwise specified.
- \* File all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20  $\mu$ m

GOVERNMENT PROPERTY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	QC. Checked by	J.N. Ariola	Trans Gear Pin, Gear A, and Gear B Assy	
Designed by				Material	File name
Recommended by	A.B. Ybanez			MC_transGpinassy	
Approved by	R. C. La Rosa			 <b>DepED-BLR</b>	

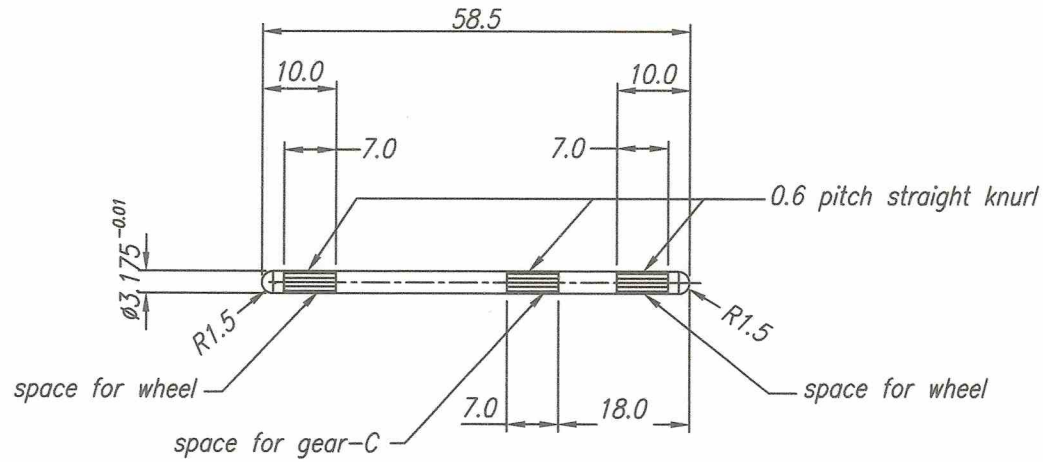
TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		± 0.10	± 0.10	± 0.20	± 0.30	± 0.50

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		± 0.20	± 0.50	± 1.00	± 2.00
Medium					

SYM	REVISION	DATE	BY


BATCH "B"



Note: Molded-in to Gear C and Wheels

- \* Dimensions are in millimeters except otherwise specified.
- \* File all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20  $\mu\text{m}$

GOVERNMENT PROPERTY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra			Material	$\varnothing 3.175\text{mm}$ (1/8") Stainless Steel, AISI 304/304L
Designed by				Q.C. Checked by	J.N. Arioja
Recommended by	A.B. Ybañez			 <b>DepED-BLR</b>	
Approved by	R. C. La Rosa				

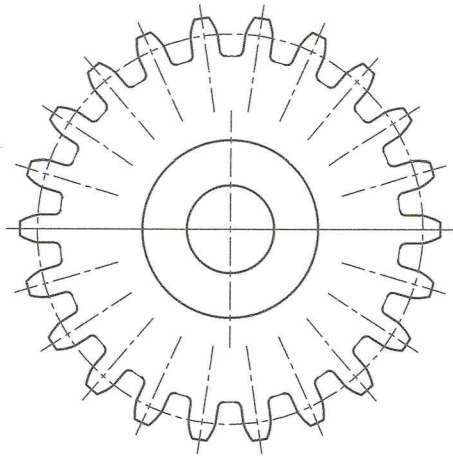
TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		$\pm 0.10$	$\pm 0.10$	$\pm 0.20$	$\pm 0.30$	$\pm 0.50$

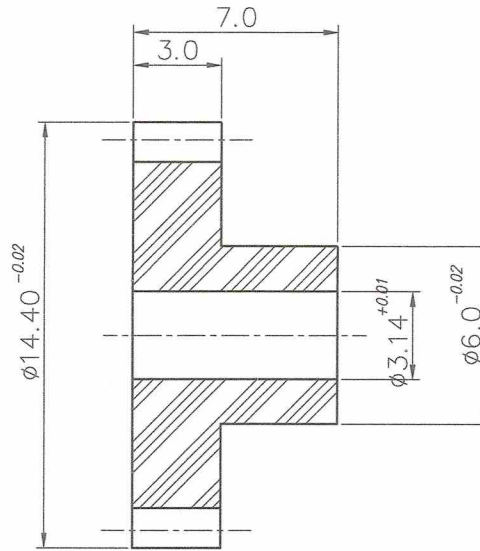
TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$
Medium		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$

SYM	REVISION	DATE	BY

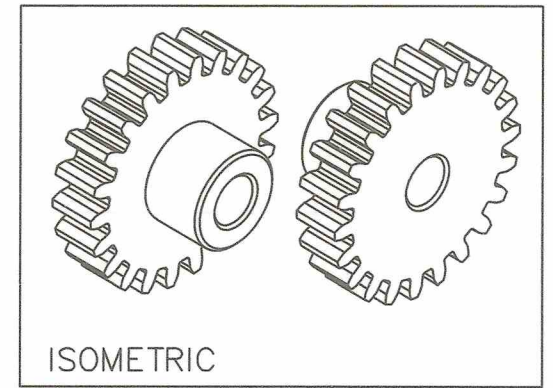
BATCH "B"



FRONT VIEW



SECTIONAL VIEW



ISOMETRIC

**20deg. PA INVOLUTE FULL-DEPTH TEETH  
SPUR GEAR**

Material = ACETAL Thermoplastic  
 Metric Module = 0.60  
 Outside Daimeter = 14.40<sup>-0.02</sup>mm  
 Pitch Diameter = 13.20mm  
 Circular Pitch = 1.88mm  
 Addendum = 0.60mm  
 Dedendum = 0.75mm  
 Whole Depth of Tooth = 1.35mm  
 Tooth Thickness at Pitch Line = 0.94mm  
 (Circular Thickness)  
 No. of Teeth = 22

- \* Dimensions are in millimeters except otherwise specified.
- \* Smoothen all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20 μm

GOVERNMENT PROPERTY

TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		± 0.10	± 0.10	± 0.20	± 0.30	± 0.50

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth Medium		± 0.20	± 0.50	± 1.00	± 2.00

SYM

REVISION

DATE

BY

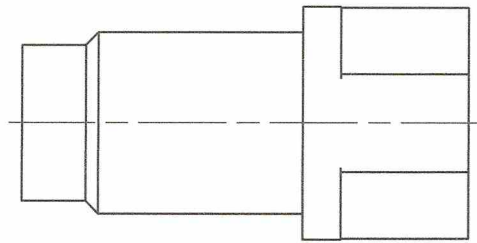
Date	SEPT 2021	Scale	NTS	
Conceptualized by				
Drawn by	B.C. Lisondra	Item Name	GEAR -C	
Designed by		Checked by	J.N. Arioja	Sheet
Recommended by	A.B. Ybanez	Material	Acetal Thermoplastic, Color: Natural Color	
Approved by	R. C. La Rosa	File name	MC_gear C	



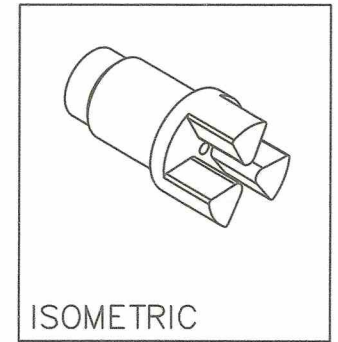
DepED-BLR



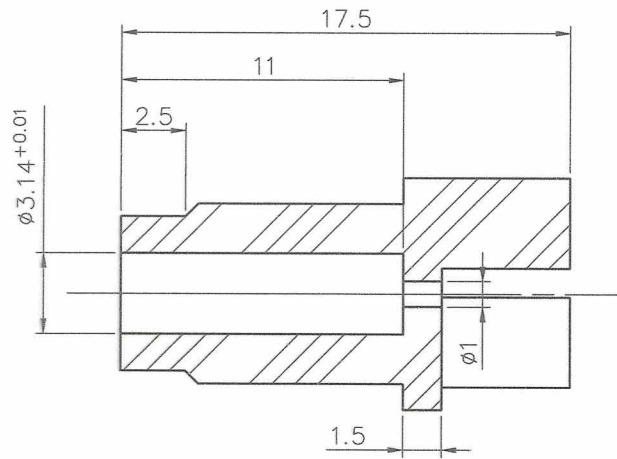
BATCH "B"



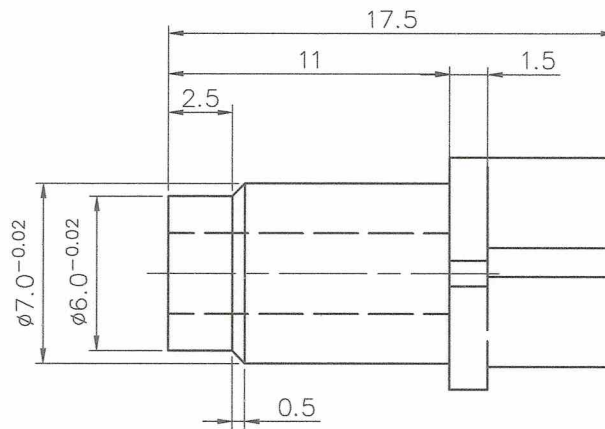
TOP VIEW



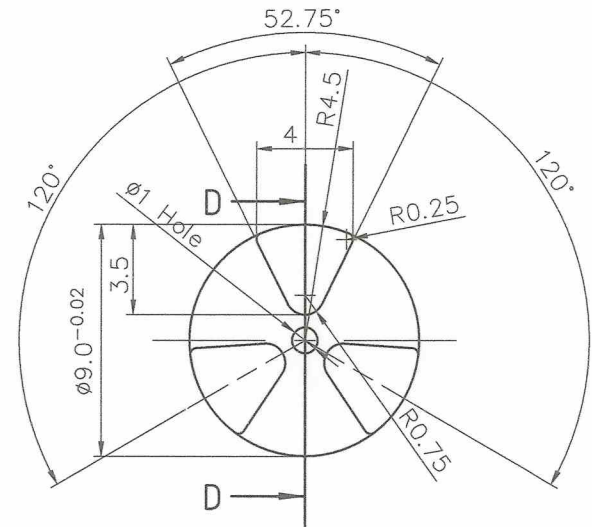
ISOMETRIC



VIEW "D-D"



FRONT VIEW



SIDE VIEW

- \* Dimensions are in millimeters except otherwise specified.
- \* Smoothen all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20  $\mu$ m


GOVERNMENT PROPERTY

TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		$\pm 0.10$	$\pm 0.10$	$\pm 0.20$	$\pm 0.30$	$\pm 0.50$

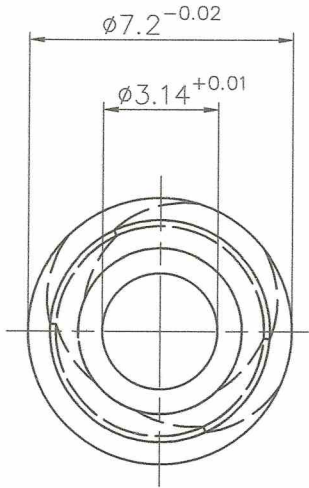
  

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$
Medium					

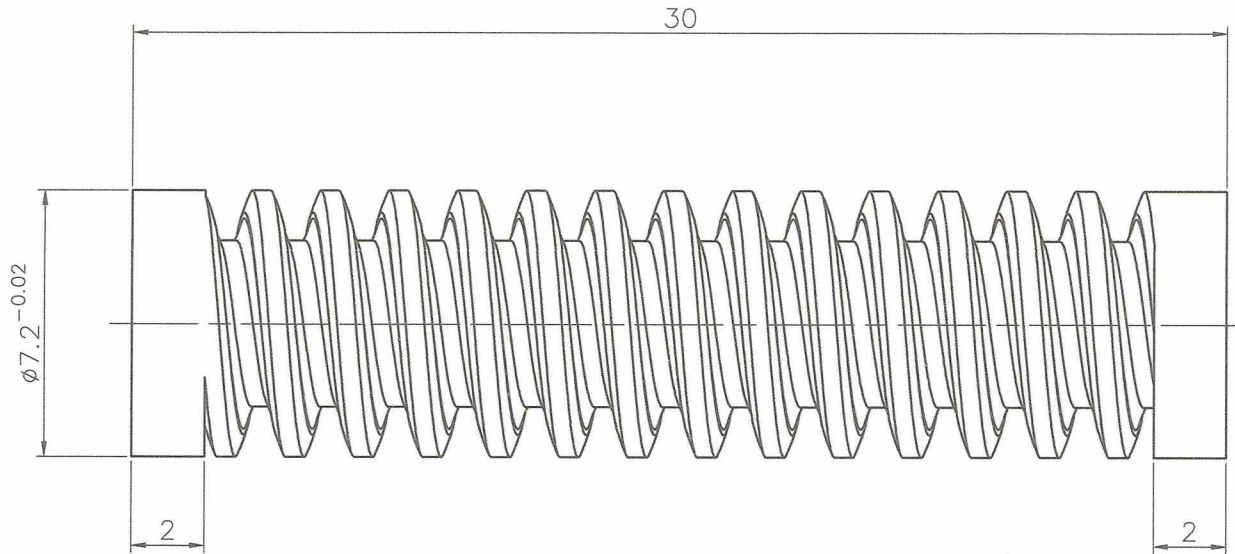
SYM	REVISION	DATE	BY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	Item Name	WORM/SHAFT ASSEMBLY COUPLING		Sheet
Designed by	J.N. Arjoja	Checked by	Material		File name
			Acetal Thermoplastic, Color: White		MC_wormshaftcoup
Recommended by	A.B. Ybanez	 <b>DepED-BLR</b>			
Approved by	R. C. La Rosa				

BATCH "B"



END VIEW




FRONT VIEW

**WORM, 20deg. NORMAL P.A.,**  
**SINGLE-THREAD (RIGHT HAND)**  
 Material = ACETAL Thermoplastic  
 Color = Blue  
 Axial Pitch = 1.88mm  
 Lead = 1.88mm  
 Outside Diameter =  $7.20^{-0.02}$  mm  
 Pitch Diameter = 6.00 mm  
 Addendum = 0.60 mm  
 Whole Depth of Thread = 1.36mm  
 Normal Tooth Thickness (@ pitch line) = 0.935mm  
 Normal Circular Pitch = 1.87mm  
 Lead Angle = 5.6949 degrees

- \* Dimensions are in millimeters except otherwise specified.
- \* Smoothen all sharp edges.
- \* Surface Roughness @ 1.00 to 1.20  $\mu$ m

GOVERNMENT PROPERTY

**MOTORIZED CART**

Date	SEPT 2021	Scale	NTS	
Conceptualized by				
Drawn by	B.C. Lisondra	Item Name	WORM, 20deg. P.A. SINGLE THREAD	Sheet
Designed by		Material	Acetal Thermoplastic, Color: Natural Color	File name
		Q.C. Checked by	J.N. Arjoja	MC_worm
Recommended by	A.B. Ybañez			
Approved by	R. C. La Rosa			

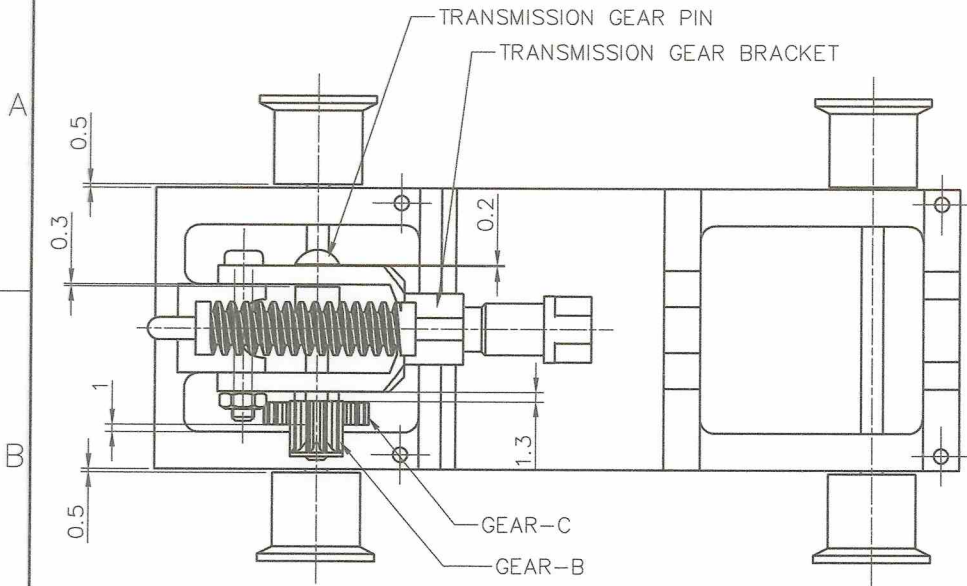
TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		$\pm 0.10$	$\pm 0.10$	$\pm 0.20$	$\pm 0.30$	$\pm 0.50$

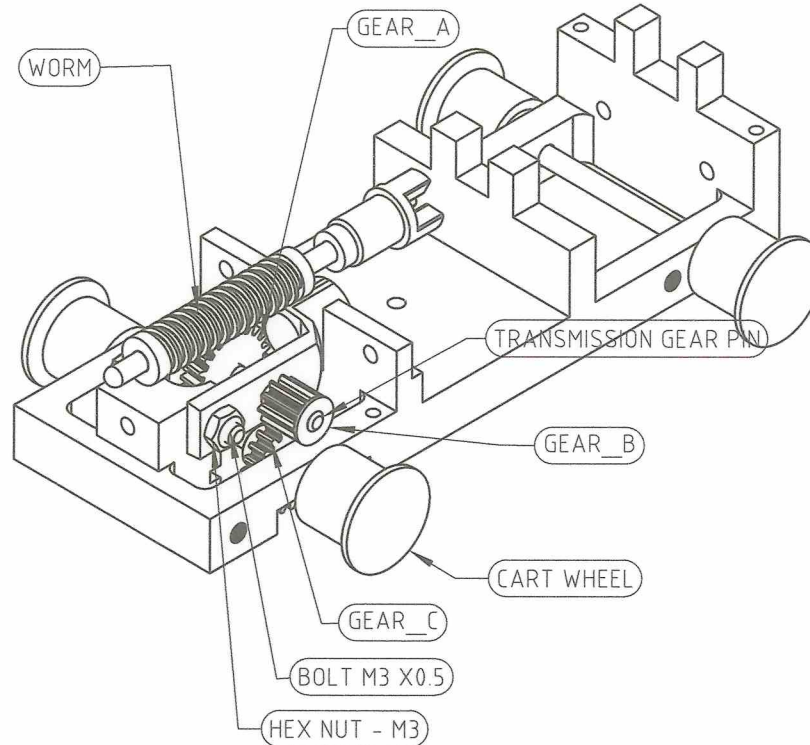
TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$
Medium		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$

SYM	REVISION	DATE	BY

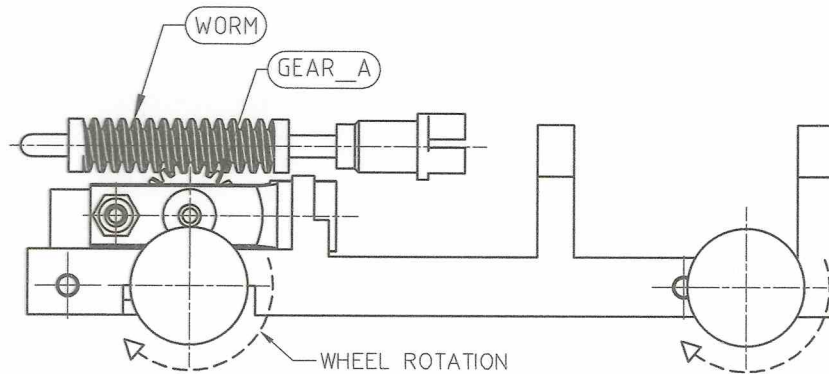
SCIKIT-MECHANICS



TOP VIEW




ISOMETRIC



FRONT VIEW

GOVERNMENT PROPERTY

Date	SEPT 2021	Scale	NTS	<b>MOTORIZED CART</b>	
Conceptualized by					
Drawn by	B.C. Lisondra	Q.C. Checked by	J.N. Arjoja	GEAR ASSEMBLY	
Designed by				Material	File name Mcart_Gear_Assy
Recommended by	A.B. Ybanez			 <b>DepED-BLR</b>	
Approved by	R. C. La Rosa				

TOLERANCES FOR LENGTH GAUGING						
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120	Over 120 to 400
Medium		$\pm 0.10$	$\pm 0.10$	$\pm 0.20$	$\pm 0.30$	$\pm 0.50$

TOLERANCES FOR RADIUS & CHAMFERS					
Grade of Accuracy	Nominal Size	0.5 to 3	Over 3 to 6	Over 6 to 30	Over 30 to 120
Smooth		$\pm 0.20$	$\pm 0.50$	$\pm 1.00$	$\pm 2.00$
Medium					

SYM REVISION DATE BY