

MGS-HBG-08- - - X

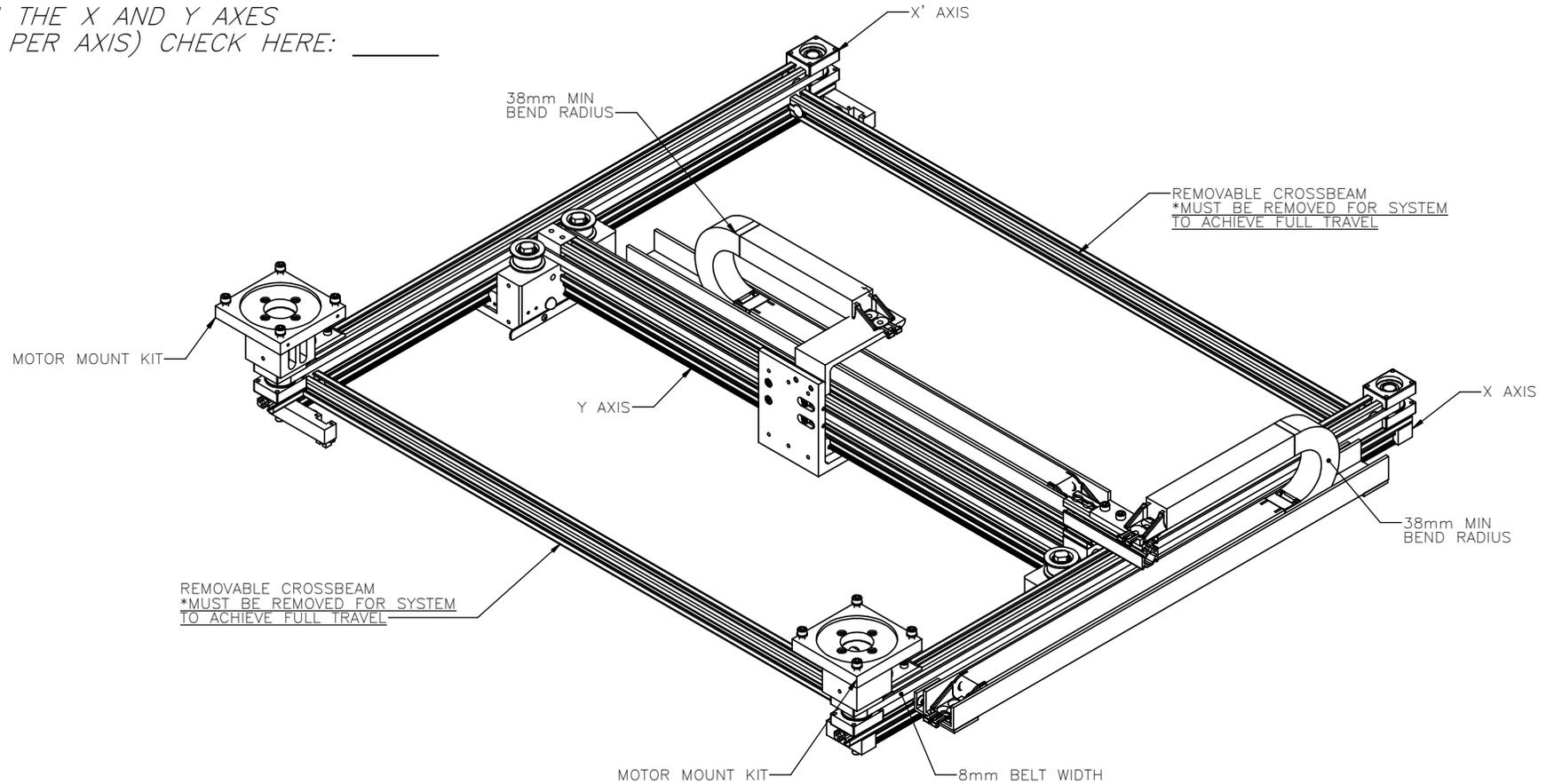
ENTER Y-AXIS TRAVEL
TRAVEL IN INCREMENTS OF 250mm
TRAVEL LIMITS: 250mm-750mm

ENTER X-AXIS TRAVEL
TRAVEL IN INCREMENTS OF 250mm
TRAVEL LIMITS: 250mm-1500mm

*IF TRAVEL IS
OUTSIDE LIMITS
LISTED ABOVE,
CONTACT MACRON*

MOTOR INFORMATION
MANUFACTURER: _____
MODEL: _____
(BOTH AXES ARE DIRECT DRIVEN)

TO INCLUDE OPTICAL END TRAVEL SENSORS
ON THE X AND Y AXES
(2 PER AXIS) CHECK HERE: _____



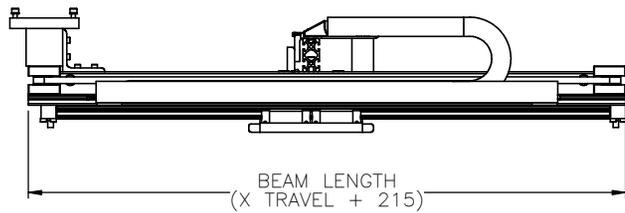
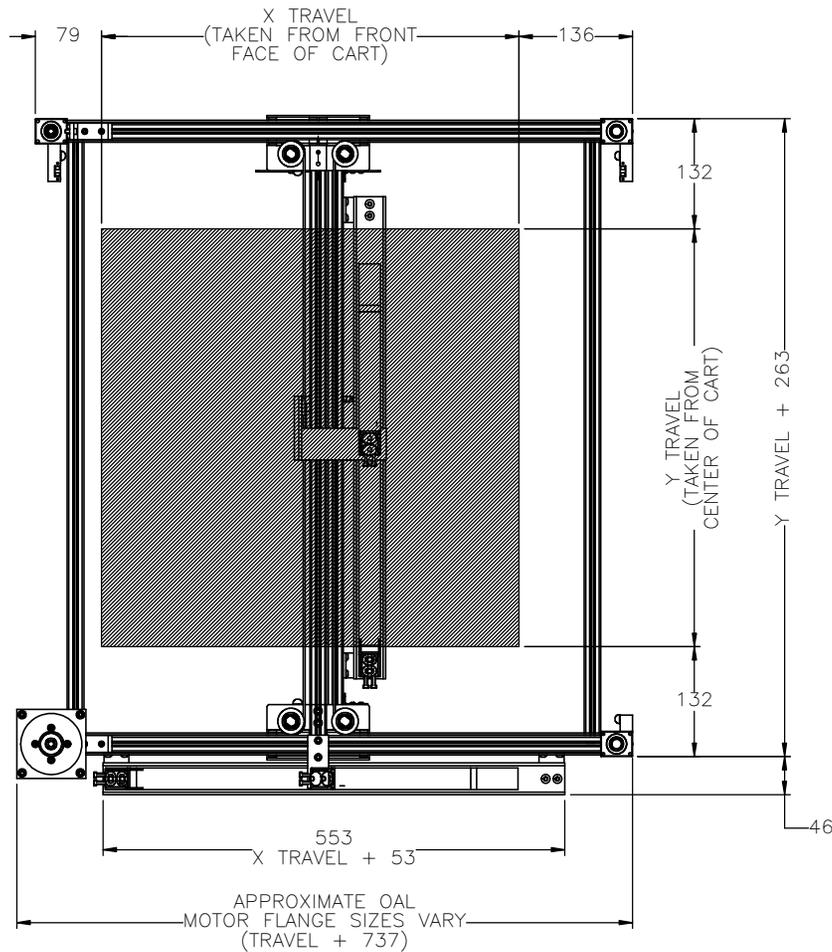
APPROVED: _____

SIGN & PRINT

DATE: _____

PO:REFERENCE#: _____

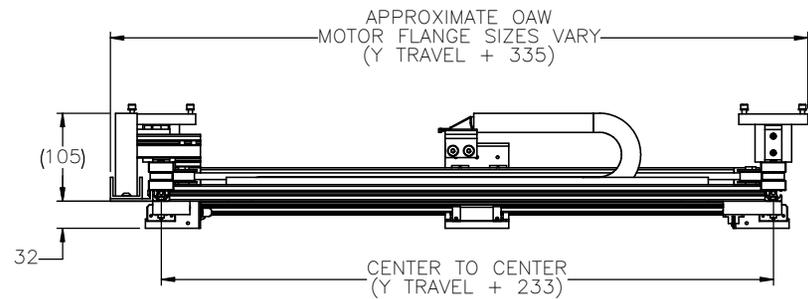
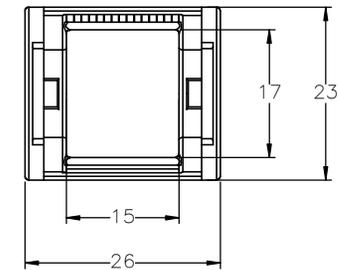
 MACRON DYNAMICS INC	DRAWN BY: TB CHECKED BY: LAST SAVED BY: awong	DATE: 1/2/2019 DATE: DD/MM/YYYY DATE: 11/2/2023	MATERIAL: FINISH:	TITLE: MACRON H-BOT GANTRY	
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETER TOLERANCES UNLESS NOTED OTHERWISE:		.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE: 1:1 SHEET SIZE: C	
	SURFACE FINISH: <input checked="" type="checkbox"/>		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET: 1 OF 6 PART NUMBER: MGS-HBG-08-X-X-X	REV: 00
	THIS DRAWING IS THE PROPERTY OF MACRON DYNAMICS ANY REPRODUCTIONS SHALL BE FOR QUOTATION, MANUFACTURING, OR PURCHASING PURPOSES ONLY. RELEASE OF DRAWINGS TO OTHER CONCERNS DOES NOT CONSTITUTE LICENSING IN ANY WAY. INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL.				



GANTRY FOOTPRINT

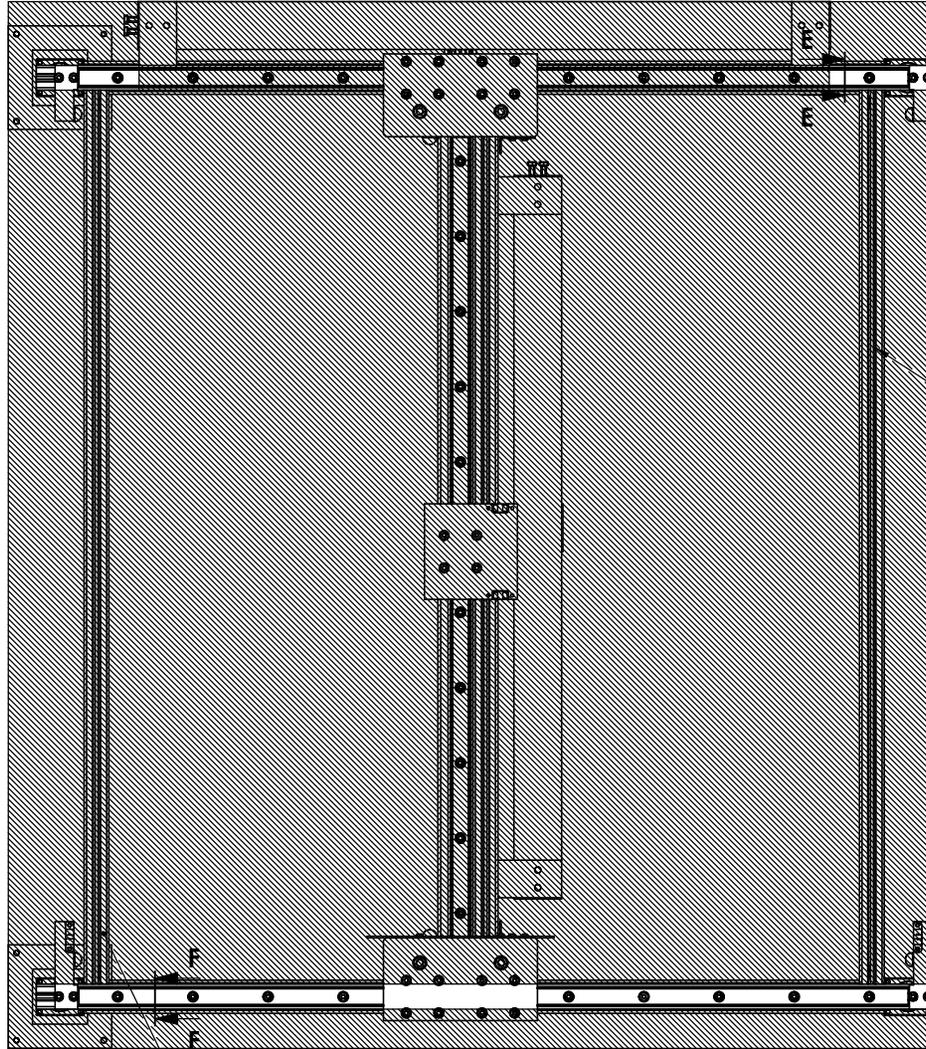
**ALL X-TRAVEL DIMENSIONS GIVEN ARE
BASED ON THE CUSTOMERS REMOVAL OF
"REMOVABLE CROSSBEAMS"

CABLE TRACK SIZE
(SAME FOR BOTH AXES)

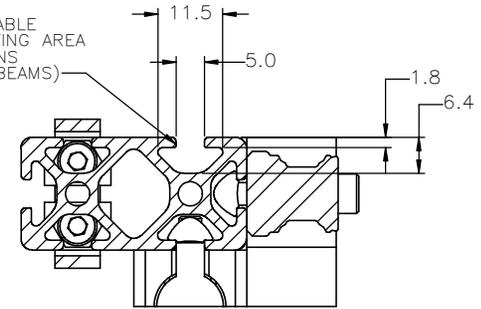


 MACRON DYNAMICS INC	DRAWN BY: TB DATE: 1/2/2019	MATERIAL:	TITLE: MACRON H-BOT GANTRY	
	CHECKED BY: DATE: DD/MM/YYYY	FINISH:		
	LAST SAVED BY: owong DATE: 11/2/2023	UNLESS OTHERWISE SPECIFIED: .XX ± .254 DIMENSIONS ARE IN MILLIMETER TOLERANCES UNLESS NOTED: .XXX ± .127 OTHERWISE: ANG ± 0°30'	SCALE 1:1	SHEET SIZE C
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GANTRY MOUNTING FEATURES



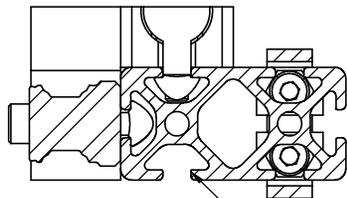
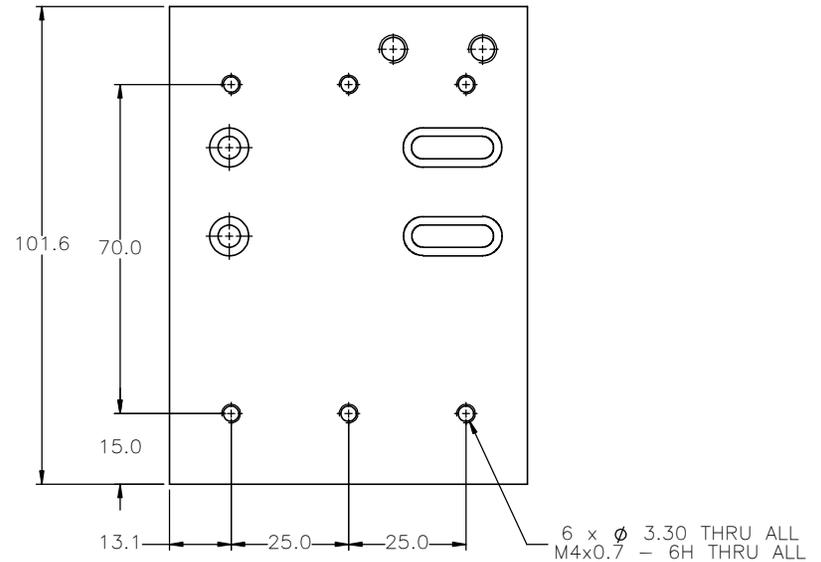
(1x) T-SLOT AVAILABLE
SUGGESTED MOUNTING AREA
(T-SLOT DIMENSIONS
TYPICAL FOR ALL BEAMS)



SECTION E-E

(BEAM MUST BE REMOVED
TO ACHIEVE FULL TRAVEL)

CART MOUNTING FEATURES

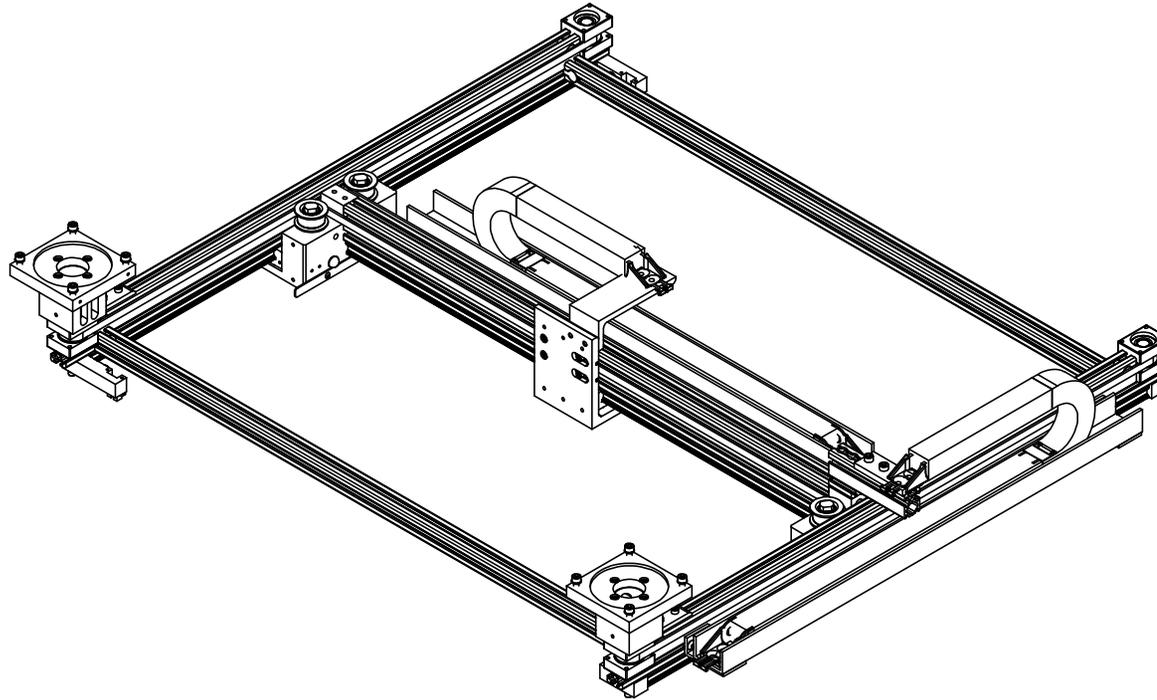


SECTION F-F

(1x) T-SLOT AVAILABLE
SUGGESTED MOUNTING AREA

 MACRON DYNAMICS INC	DRAWN BY: TB DATE: 1/2/2019	MATERIAL:	TITLE: MACRON H-BOT GANTRY
	CHECKED BY: DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: awong DATE: 11/2/2023	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETER TOLERANCES UNLESS NOTED: .XX ± .254 .XXX ± .127 OTHERWISE: ANG ± 0°30'	
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SHEET 3 OF 6	PART NUMBER MGS-HBG-08-X-X-X	REV 00	

MOTOR SIZING WORKSHEET



PROPERTY	VALUE
PULLEY PITCH ϕ	25.6mm (1.008")
PULLEY WIDTH	9mm (.35")
PULLEY MATERIAL	STEEL
TRAVEL PER REV	80mm
BELT WIDTH	8mm (.32")
ULTIMATE TENSILE STRENGTH OF BELT	234 LBS (1040 N)
RECOMMENDED BELT RUNNING LOAD	58 LBS (260 N)

X-TRAVEL = _____ mm

Y-TRAVEL = _____ mm

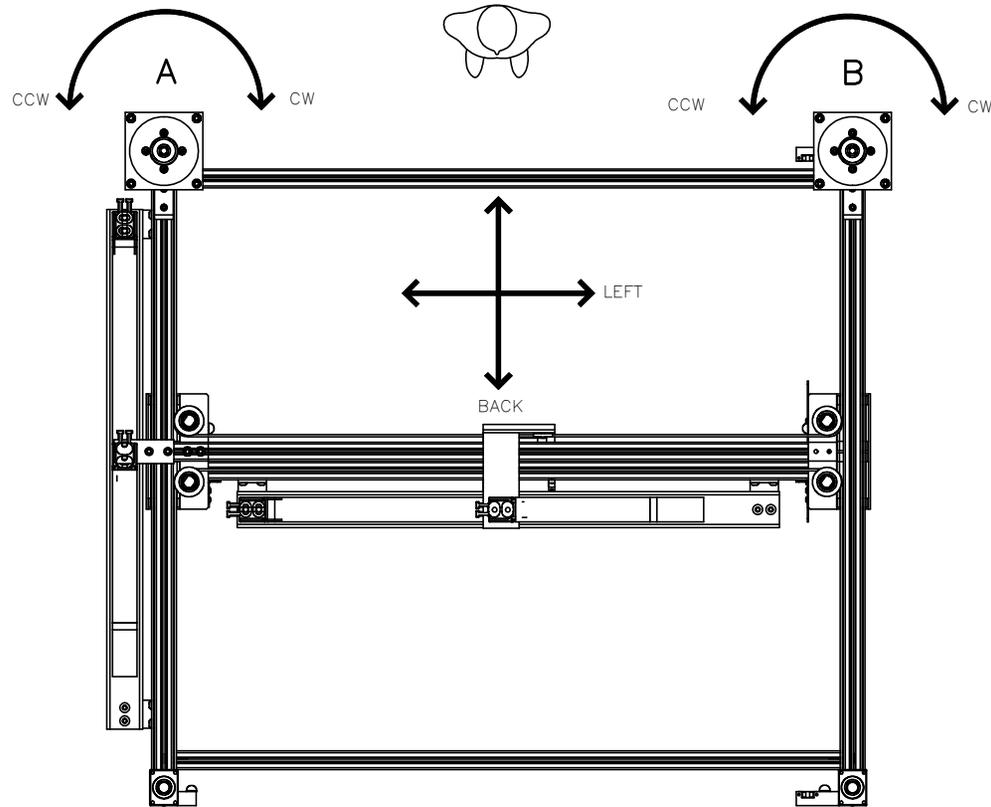
NOTE: ALL SUPPLIED MASSES DO NOT INCLUDE CUSTOMER COMPONENTS (MOTORS, CABLES, ETC)

TOTAL BELT MASS	$(X \text{ TRAVEL} \times .00007) + (Y \text{ TRAVEL} \times .00004) + .022 = \text{kg}$
TOTAL MOVING MASS	$(X \text{ TRAVEL} \times .0004) + (Y \text{ TRAVEL} \times .0030) + 2.2 = \text{kg}$
TOTAL SYSTEM MASS	$(X \text{ TRAVEL} \times .0053) + (Y \text{ TRAVEL} \times .0040) + 4.4 = \text{kg}$

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	SURFACE FINISH <input checked="" type="checkbox"/>	SCALE: 1:1 SHEET SIZE: C		
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MOTOR DYNAMICS

(ASSUMES MOTORS ARE ROTATING AT SAME ANGULAR VELOCITY)



ROTATIONAL DIRECTION		Y-AXIS CART MOVEMENT
PULLEY A	PULLEY B	
CW	CW	LEFT
CW	CCW	BACK
CCW	CW	FRONT
CCW	CCW	RIGHT

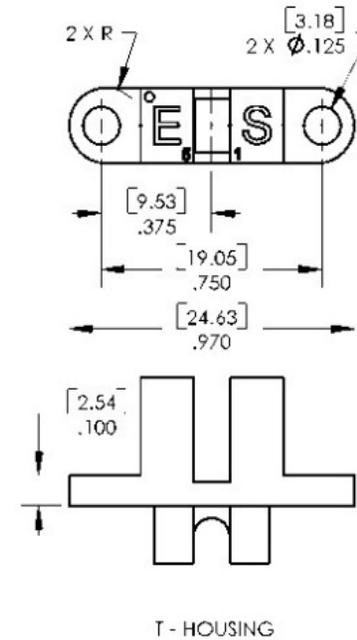
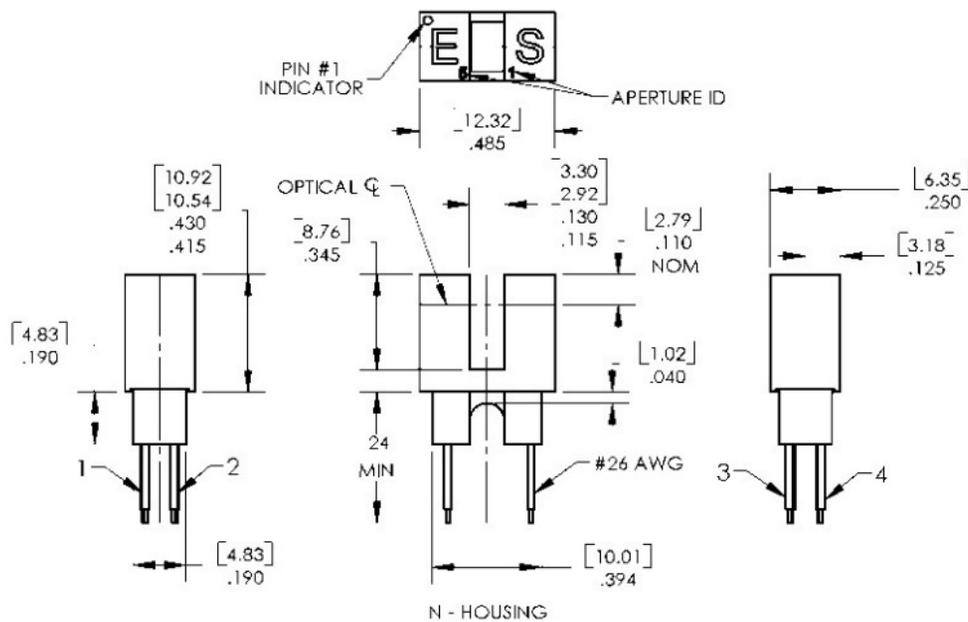
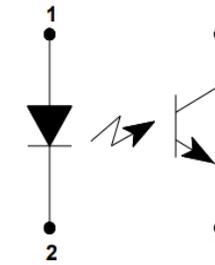
PULLEY ROTATION AND Y-AXIS CART MOVEMENT
ARE WITH RESPECT TO THIS GANTRY VIEW

 MACRON DYNAMICS INC	DRAWN BY: TB DATE: 1/2/2019	MATERIAL:	TITLE: MACRON H-BOT GANTRY
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	LAST SAVED BY: owong DATE: 11/2/2023		SCALE 1:1 SHEET SIZE C
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES UNLESS NOTED: .X ± .762 .XX ± .254 .XXX ± .127 OTHERWISE: ANG ± 0°30'	SURFACE FINISH ✓ BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 5 OF 6 PART NUMBER MGS-HBG-08-X-X-X

SENSOR DATA

Sensor Type	Optical Sensor
Max Operating Voltage	30 V
Sensing Distance	0.125" (3.18)
Max DC Forward Current	50 mA
Max Collector Current	30 mA
Operating Temperature Range	-40° C to 85° C

Wire Colors	
Color #	Description
1	Red
2	Black
3	White
4	Green



 MACRON DYNAMICS INC	DRAWN BY: JA DATE: 1/2/2019 MATERIAL:	TITLE: T-SLOT SENSOR KIT
	CHECKED BY: DATE: DD/MM/YYYY	
	LAST SAVED BY: awong DATE: 11/2/2023	
	FINISH:	
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SHEET: 6 OF 6 PART NUMBER: SENSOR CALL-OUT REV:		