

GEARBOX MODEL (X AXIS)  
 MPG-064 \_\_\_ MPG-084 \_\_\_  
 MRG-064 \_\_\_ MRG-084 \_\_\_  
 RATIO: \_\_\_\_\_

GEARBOX MODEL (Y AXIS)  
 MPG-064 \_\_\_ MPG-084 \_\_\_  
 MRG-064 \_\_\_ MRG-084 \_\_\_  
 RATIO: \_\_\_\_\_

FOR DIRECT-DRIVE OPTION WITH MMKs  
 (NO GEARBOXES) CHECK HERE: \_\_\_\_\_

MOTOR INFORMATION (X AXIS)  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

MOTOR INFORMATION (Y AXIS)  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

MOTOR INFORMATION (Z AXIS)  
 MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_  
 (\*Z AXIS IS DIRECT-DRIVEN)

SENSOR INFORMATION X-AXIS:  
 HOME-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_

SENSOR INFORMATION Y-AXIS:  
 HOME-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_

SENSOR INFORMATION Z-AXIS:  
 HOME-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_  
 EOT-QTY \_\_\_ 244-\_\_\_\_-\_\_\_\_-\_\_\_\_

(SEE T-SLOT SENSOR KIT SHEET  
 FOR PART NUMBER CONFIGURATION)

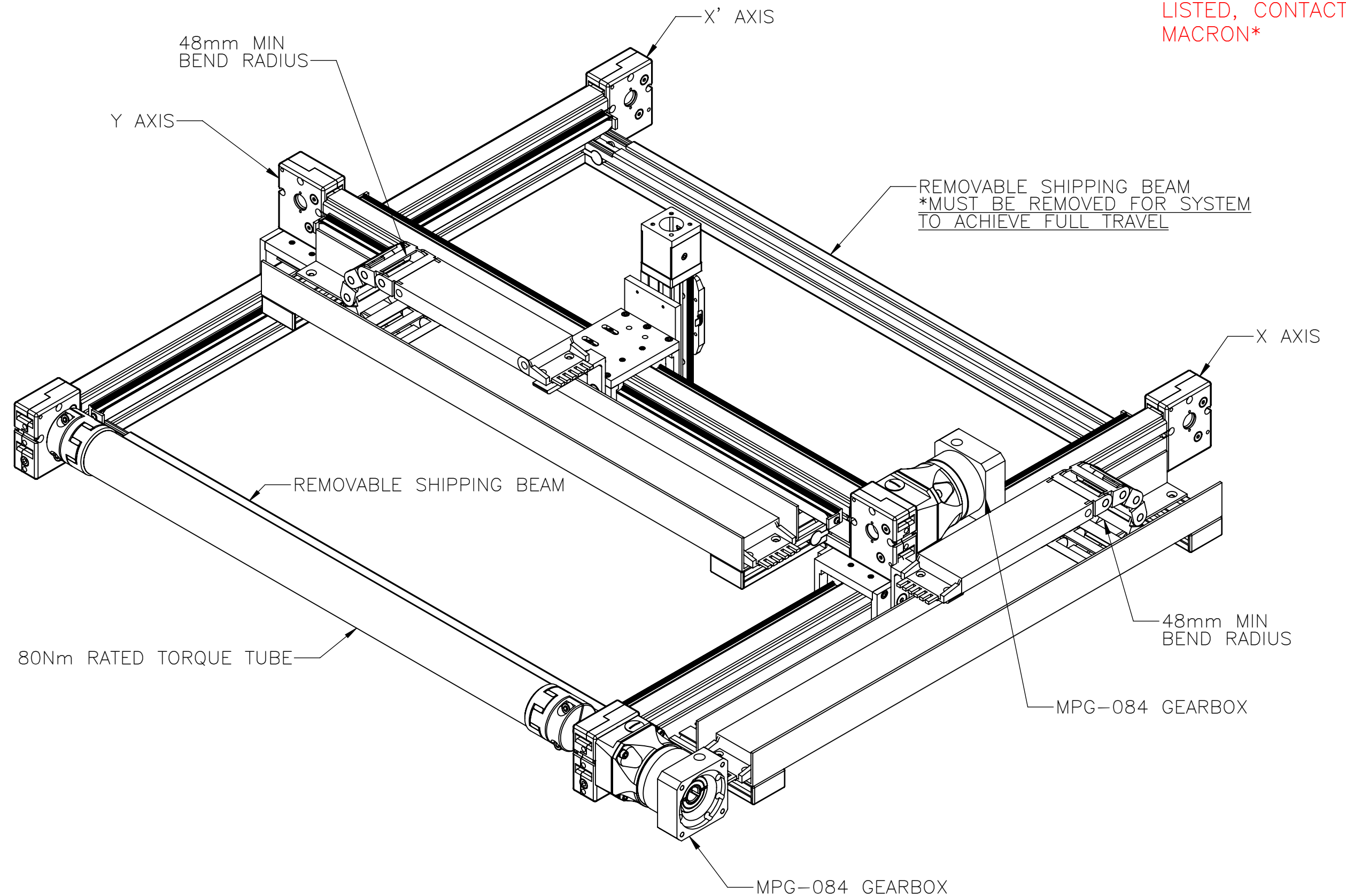
MCS-R6S- [ ] - [ ] -S [ ]

ENTER Z-AXIS TRAVEL  
 TRAVEL IN INCREMENTS OF 100mm  
 TRAVEL LIMITS: 100mm-400mm

ENTER Y-AXIS TRAVEL  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 150mm-2500mm

ENTER X-AXIS TRAVEL  
 TRAVEL IN INCREMENTS OF 25mm  
 TRAVEL LIMITS: 150mm-5825mm

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



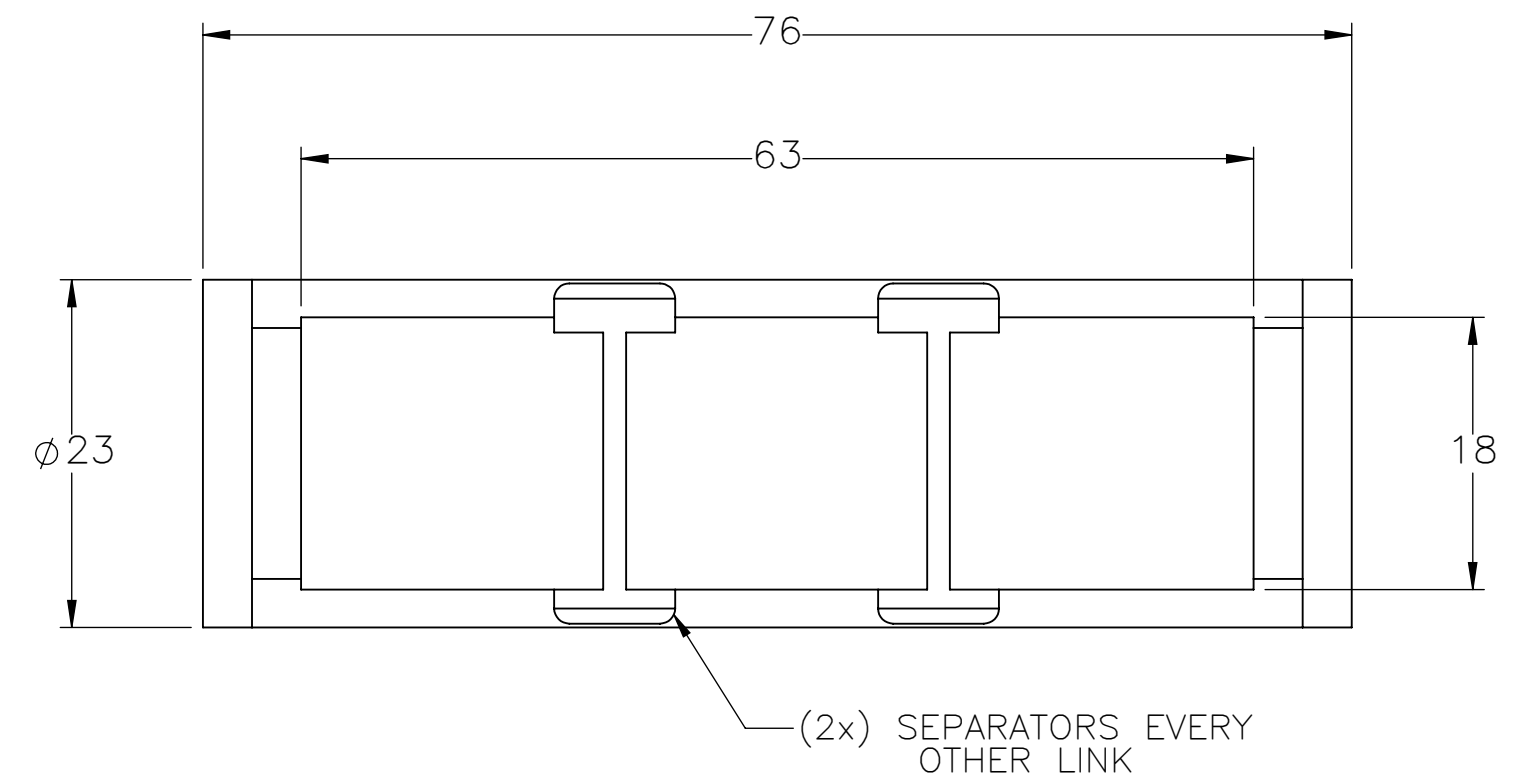
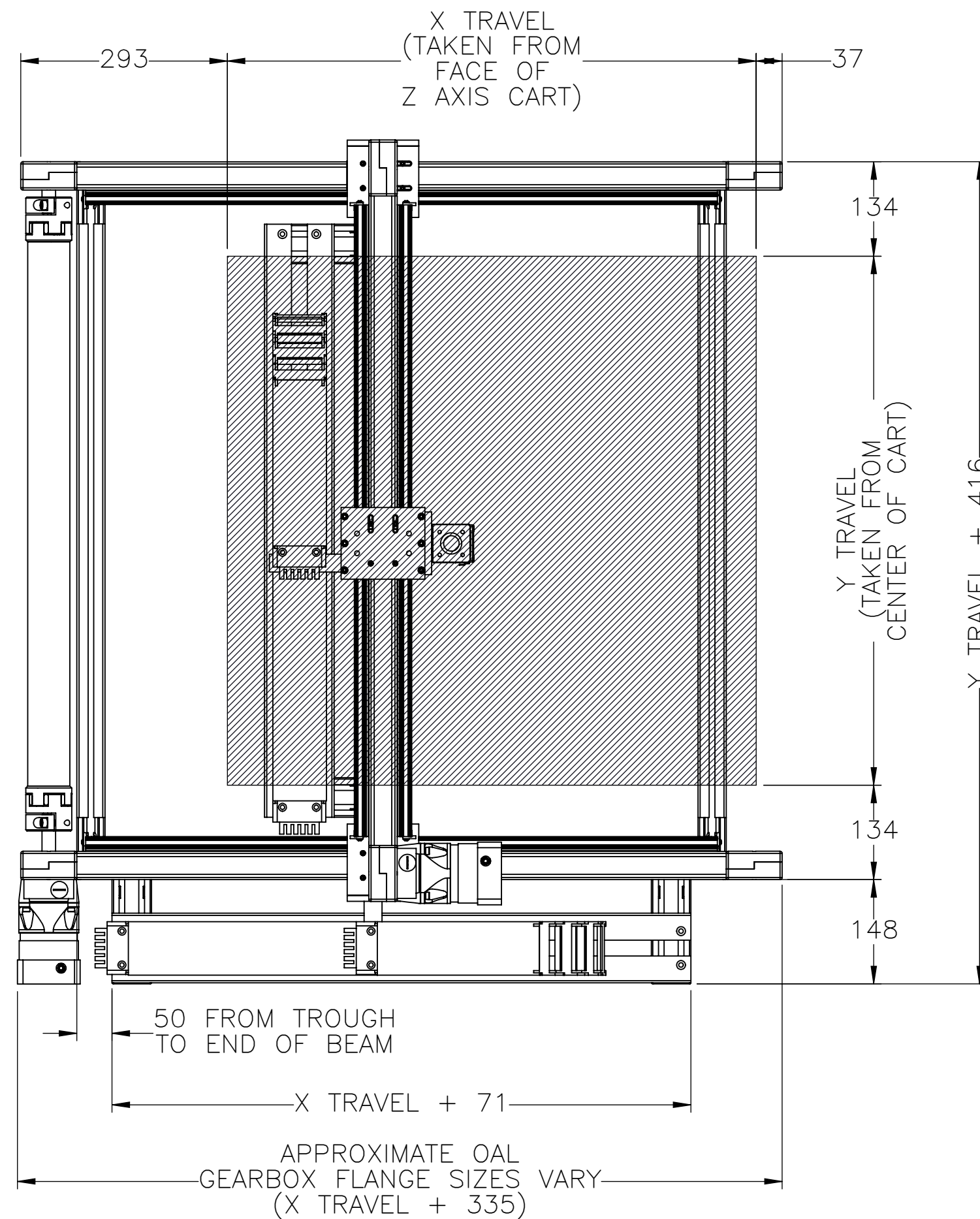
APPROVED: \_\_\_\_\_  
 SIGN & PRINT

DATE: \_\_\_\_\_

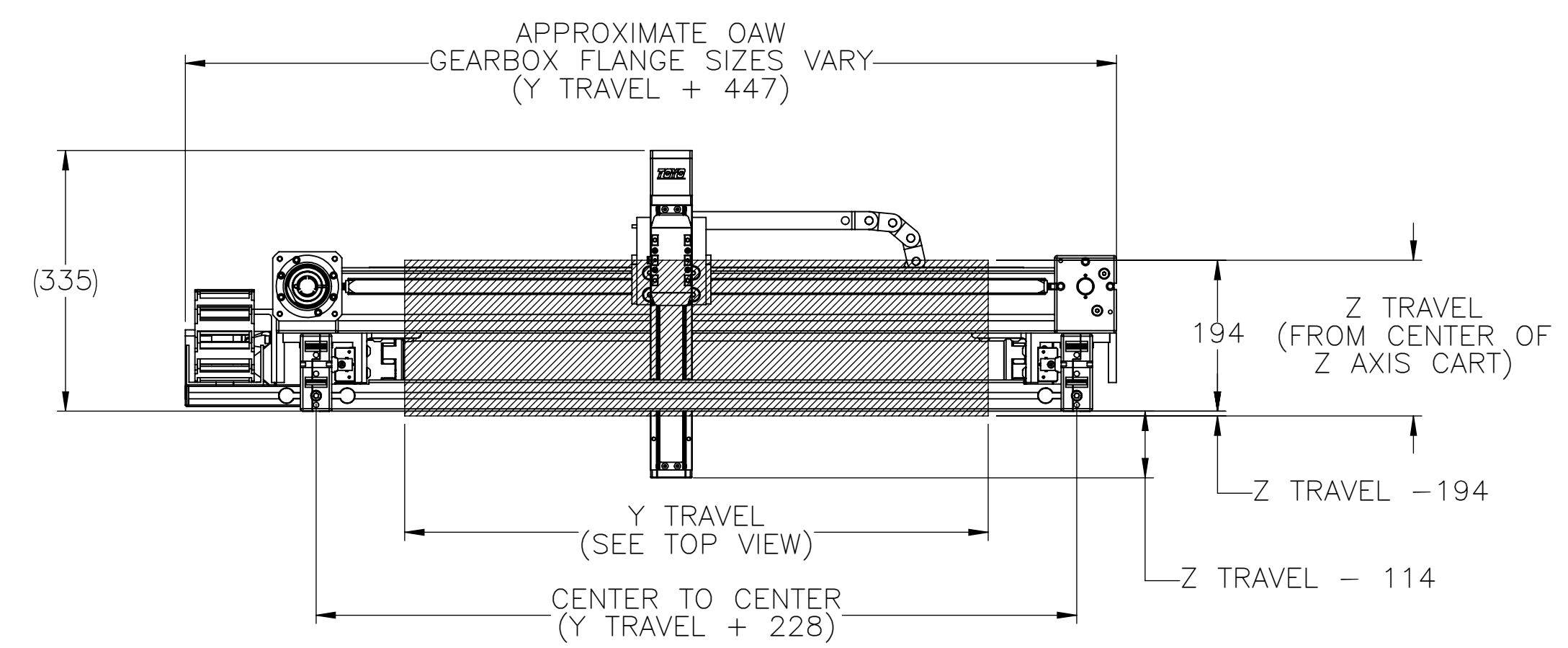
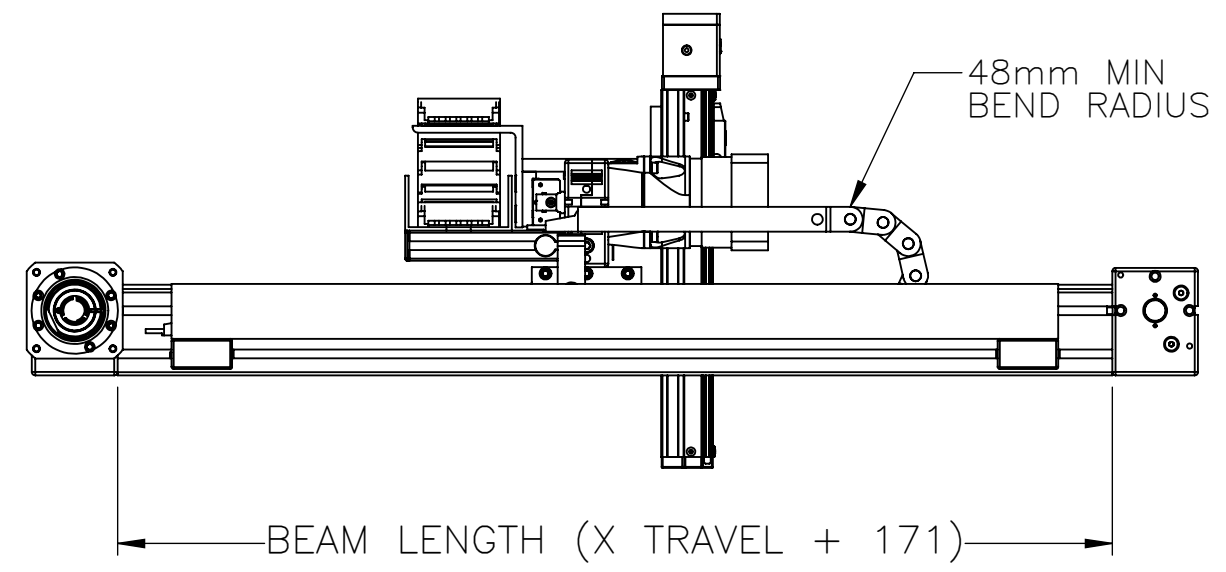
PO:REFERENCE#: \_\_\_\_\_

	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Tim	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 10/28/2021	MATERIAL:	TITLE: MACRON R6S XYZ GANTRY
	<small>UNLESS OTHERWISE SPECIFIED,          DIMENSIONS ARE IN MILLIMETERS.          TOLERANCES UNLESS NOTED          OTHERWISE:</small>		FINISH:	SCALE 1:1   SHEET SIZE C
	SURFACE FINISH $\checkmark$		SHEET	PART NUMBER
	<small>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</small>		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	1 OF 6 MCS-R6S-X-X-SX

# WORK ENVELOPE AND GANTRY FOOTPRINT

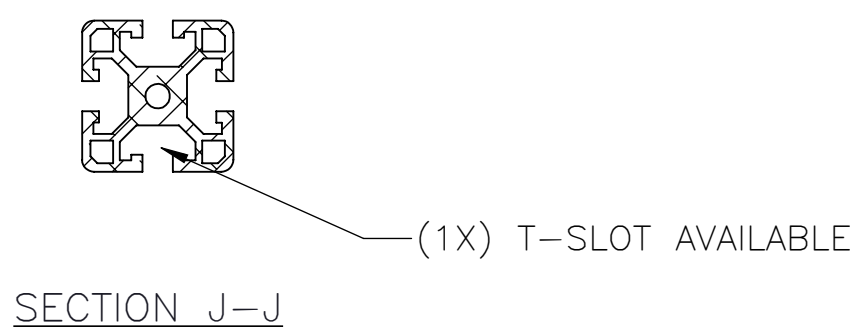
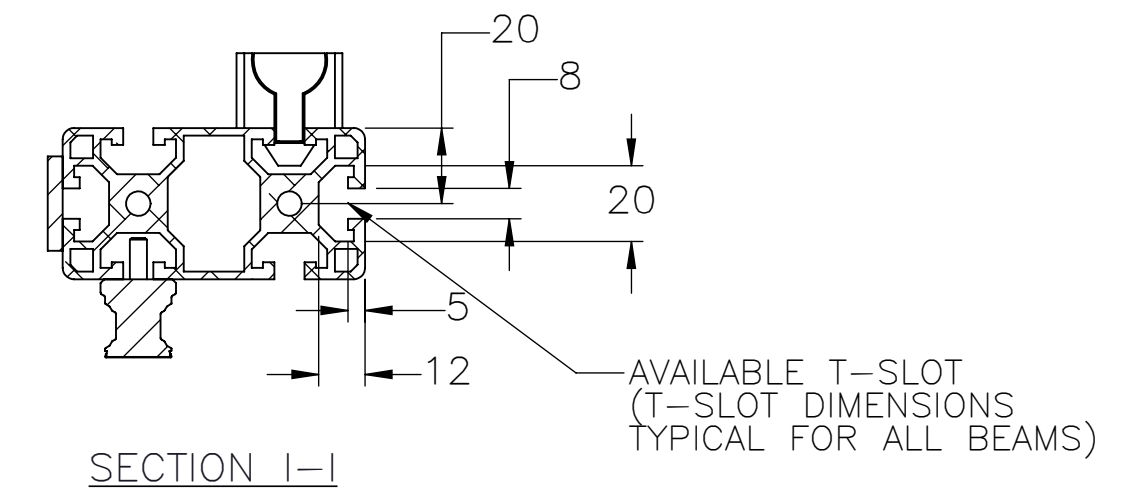
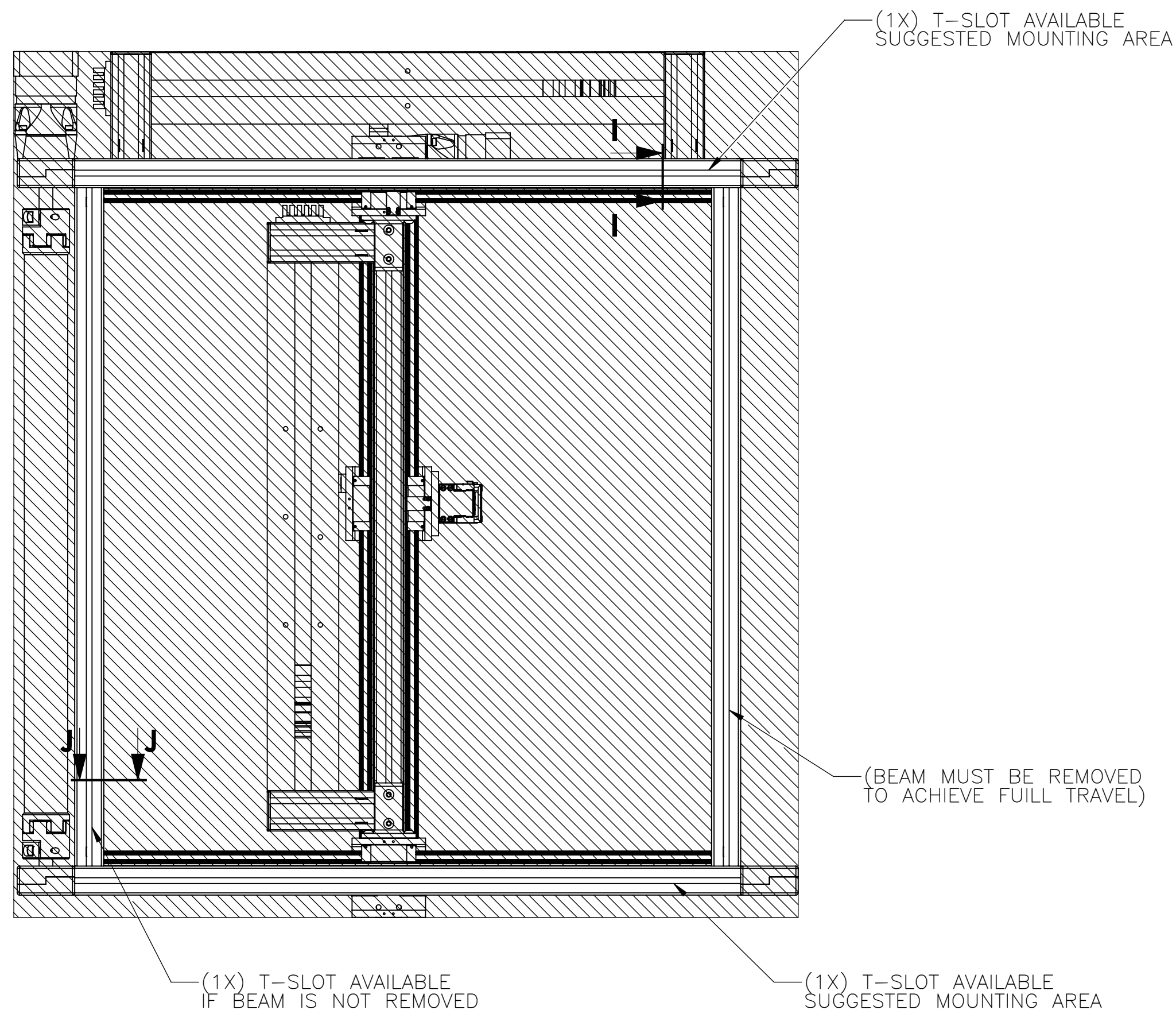


CABLE TRACK CROSS SECTION  
(SAME FOR BOTH AXES)




<p>MACRON DYNAMICS INC</p>	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Tim	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 10/28/2021	MATERIAL:	TITLE: MACRON R6S XYZ GANTRY	
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS NOTED OTHERWISE:		FINISH:	SCALE 1:1   SHEET SIZE C	
	SURFACE FINISH 63		SHEET 2 OF 6	PART NUMBER MCS-R6S-X-X-SX	REV
	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.		BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION		

# GANTRY MOUNTING FEATURES



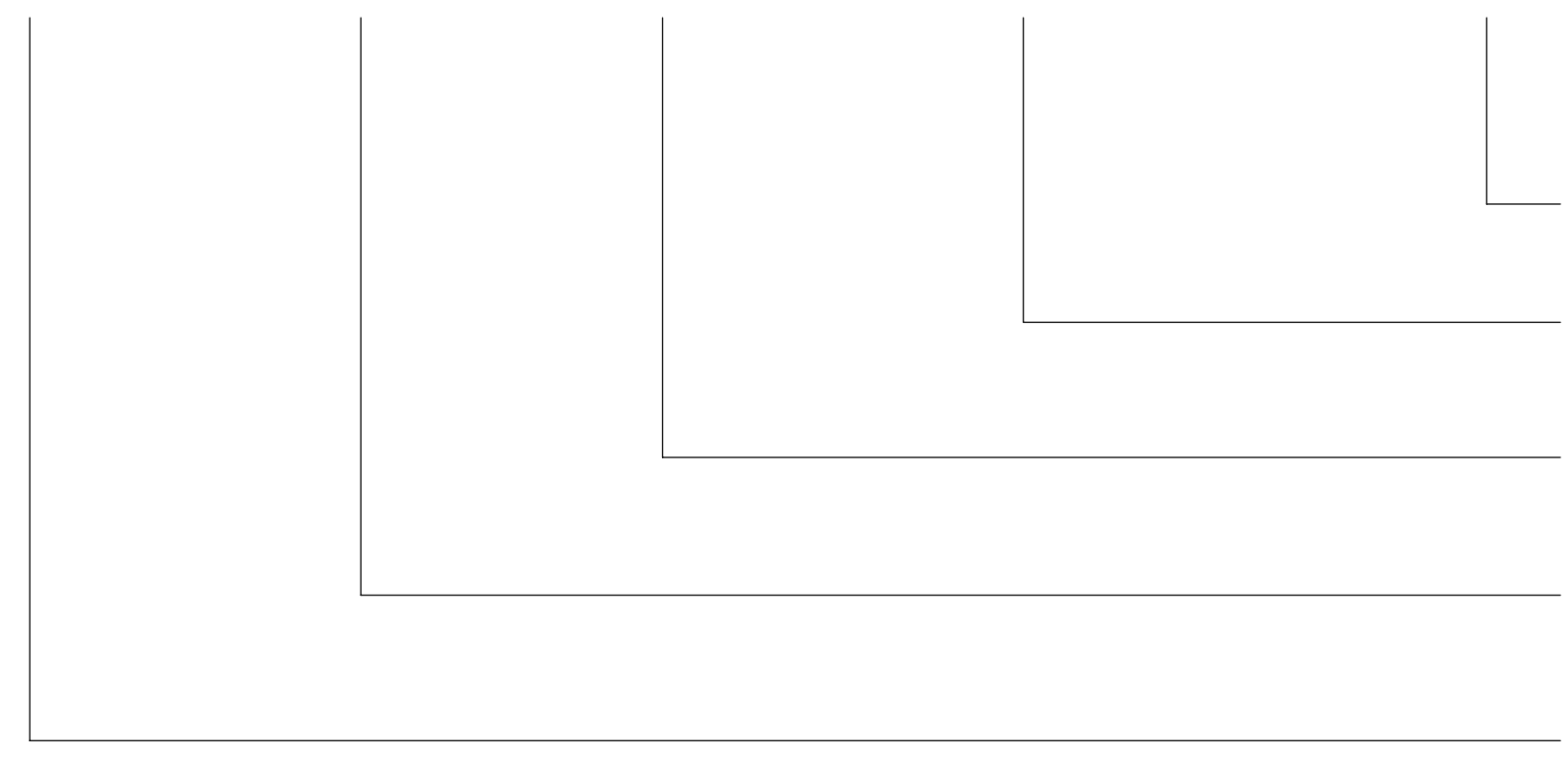
## BOTTOM VIEW

 <b>MACRON DYNAMICS INC</b>	DRAWN BY: PHW      DATE: 11/26/2017	MATERIAL:	TITLE: <b>MACRON R6S XYZ GANTRY</b>
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	
	LAST SAVED BY: Tim      DATE: 10/28/2021	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES: TOLERANCES UNLESS NOTED OTHERWISE:	SCALE 1:1    SHEET SIZE C
	SURFACE FINISH 63	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 3 OF 6    PART NUMBER MCS-R6S-X-X-SX

REVISION HISTORY			
REV.	DESCRIPTION	DATE	REVISED BY:

GTH5-L - - - - - BC-M10B- - - - -

# Z-AXIS SCREW TABLE SELECTION



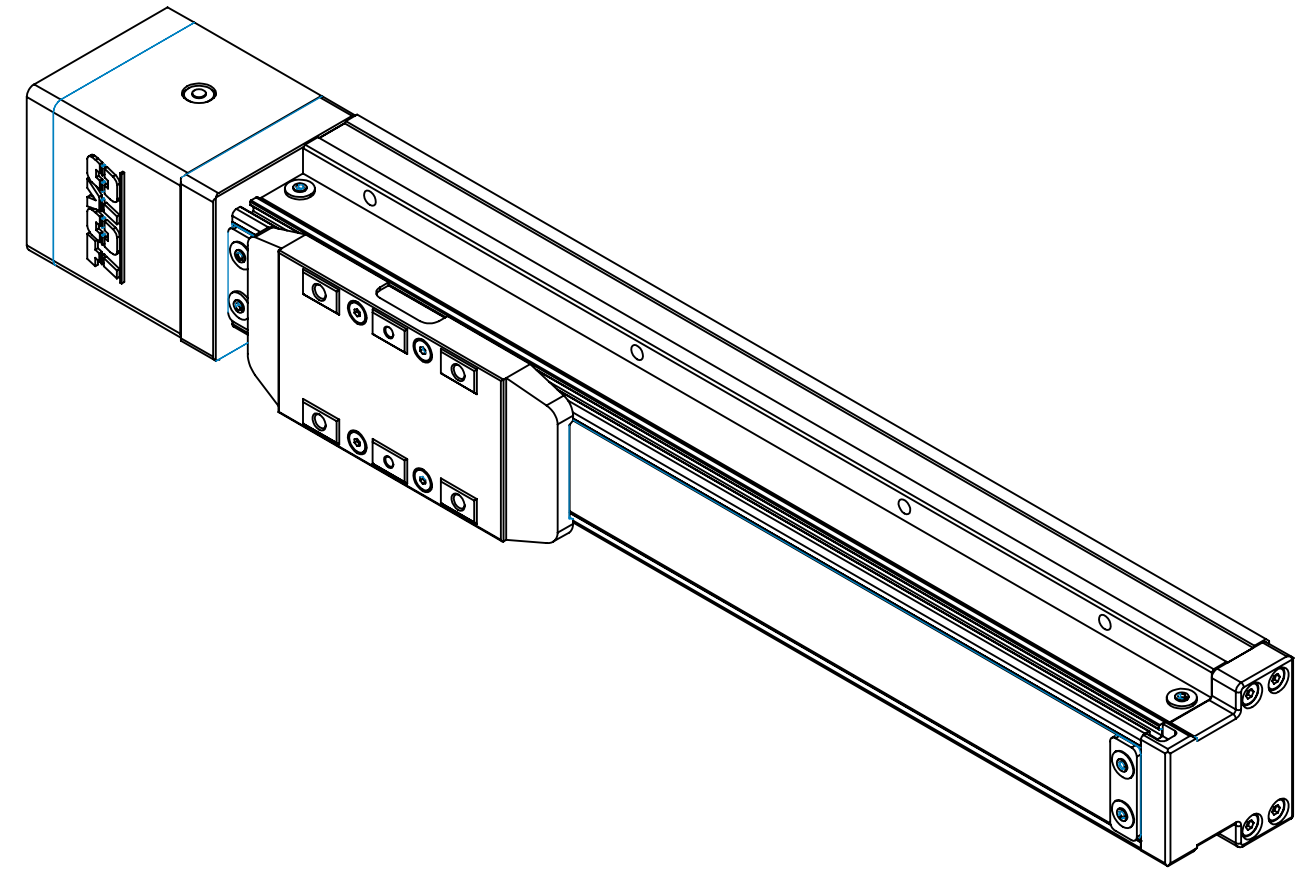
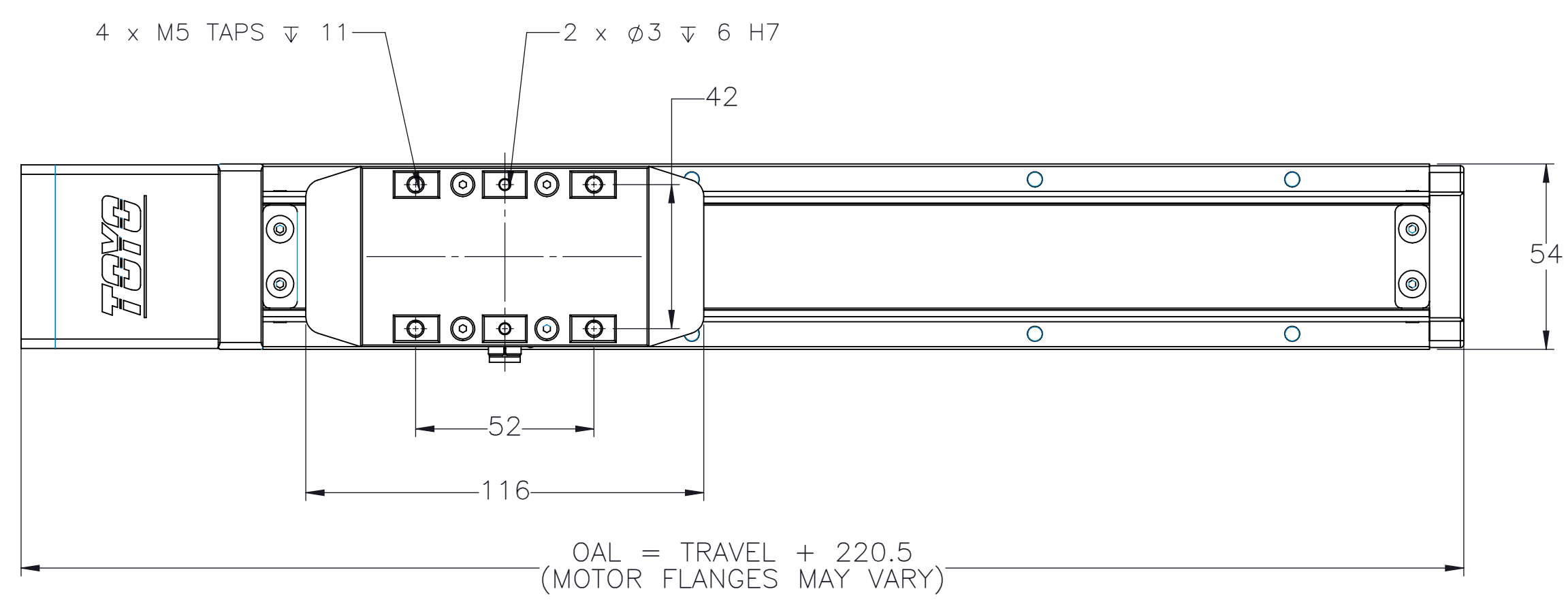
SENSOR CODE C3 = 1 HOME, 1 LIMIT SENSOR  
 C4 = 1 HOME, 2 LIMIT SENSOR  
 E5 = NO SENSORS

MOTOR CODE

MOTOR POSITION UP


STROKE/TRAVEL (100mm, 200mm, 300mm, 400mm)

BALL SCREW LEAD (5mm, 10mm, 20mm)



## MOTOR INFORMATION (Z-AXIS)

MANUFACTURER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

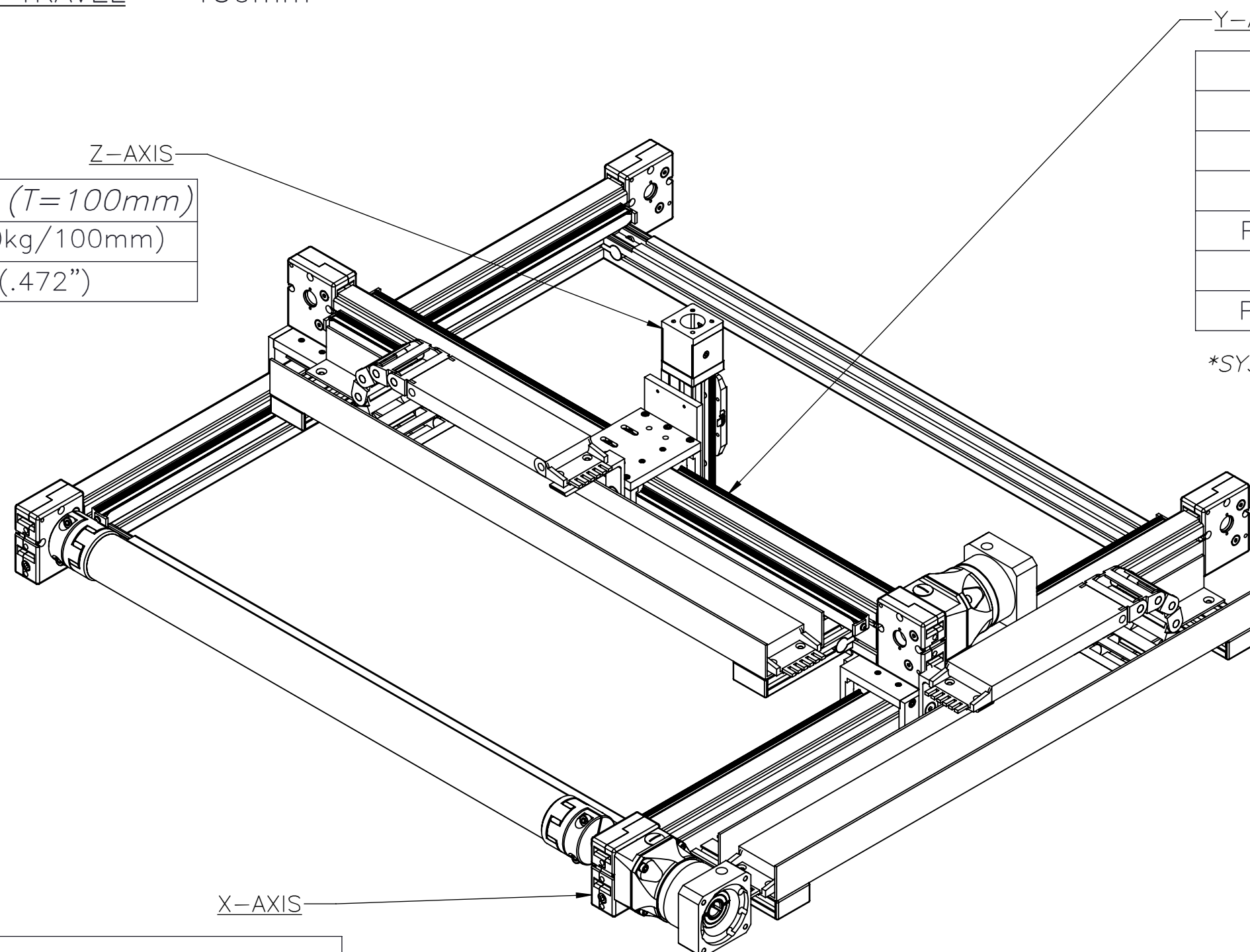
 <b>MACRON DYNAMICS INC</b>	DRAWN BY: JA      DATE: 6/27/2014	MATERIAL:	TITLE:	
	CHECKED BY: --      DATE: DD/MM/YYYY	FINISH:	SCREW TABLE SELECTION SHEET	
	LAST SAVED BY: TH      DATE: 10/28/2021	<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:</small> .X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	SCALE 1:1	SHEET SIZE C
	SURFACE FINISH $\checkmark$	BREAK ALL SHARP EDGES DIMENSIONAL LIMITS APPLY AFTER FINISHING THIRD ANGLE PROJECTION	SHEET 4 OF 6 PART NUMBER SCREW TABLE	REV

# MOTOR SIZING WORKSHEET

(INCREMENTAL ADDERS REFER TO MASS PER TRAVEL LENGTH)

BASE TRAVELS USED:  
 X TRAVEL = 150mm  
 Y TRAVEL = 150mm

PROPERTY	BASE VALUE (T=100mm)
SYSTEM MASS	2.42kg(+0.40kg/100mm)
BALL SCREW $\phi$	12mm (.472")



PROPERTY	BASE VALUE (T=150mm)
*MOVING MASS	1.702kg(+0.022kg/25mm)
BELT MASS	0.109(+0.006kg/25mm)
*SYSTEM MASS	6.031kg(+0.156kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL

\*SYSTEM MASS OF Z-AXIS NEEDS TO BE ADDED TO THIS

PROPERTY	BASE VALUE (T=150mm)
**MOVING MASS	2.861(+0.028kg/25mm)
BELT MASS	0.218(0.012kg/25mm)
PULLEY PITCH $\phi$	47.75mm (1.88")
PULLEY WIDTH	28.9mm (1.14")
PULLEY MATERIAL	STEEL
***TORQUE TUBE LENGTH	299mm
TORQUE TUBE $\phi$	60mm
***TORQUE TUBE MASS	1.311(+0.036kg/25mm)
TORQUE TUBE MATERIAL	ANODIZED ALUMINUM ELASTOMER STYLE COUPLINGS WITH HUB
TRAVEL PER REV	150mm

\*\*SYSTEM MASS OF Y-AXIS NEEDS TO BE ADDED TO THIS

\*\*\*BASE VALUE AT Y TRAVEL = 150mm

X TRAVEL = \_\_\_\_\_ mm  
 Y TRAVEL = \_\_\_\_\_ mm

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

GEARBOX MASS (ADD TO SYSTEM MASSES)	MPG-064	1.0kg
	MPG-084	2.3kg
	MRG-064	3.0kg
	MRG-084	5.6kg

TOTAL SYSTEM MASS = (X TRAVEL x .0085) + (Y TRAVEL x .0093) + (Z TRAVEL x .004) + 16.88 = \_\_\_\_\_ kg

	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: JA	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 10/28/2021	MATERIAL:  FINISH:	TITLE: MACRON R6S XYZ GANTRY
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETER. TOLERANCES UNLESS NOTED OTHERWISE:		.X $\pm$ .762 .XX $\pm$ .254 .XXX $\pm$ .127 ANG $\pm$ 0°30'	SCALE 1:1   SHEET SIZE C
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THIRD ANGLE PROJECTION

# SPECIFICATIONS

Sensor Type	Inductive
Sensor Size	Fits all 8mm wide T-Slots
Operating Voltage	10-30 VDC
Voltage Drop Across Conducting Sensor	≤1.8 V at 100 mA
Number of Conductors (AWG)	3x26 AWG
Temperature Range	-40°C to 105°C

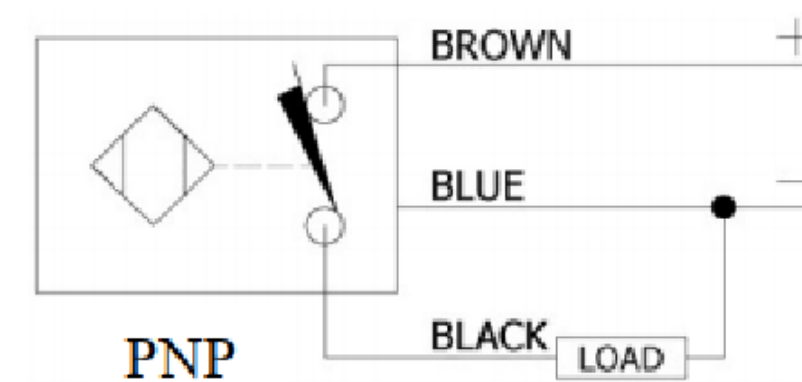
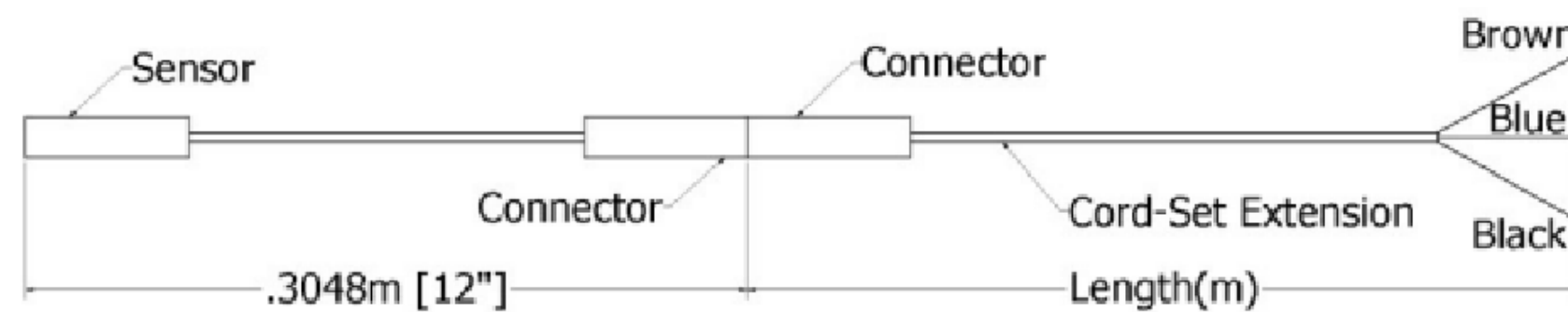
# Part Number Configuration

## 244-\_-\_-\_-\_-\_-

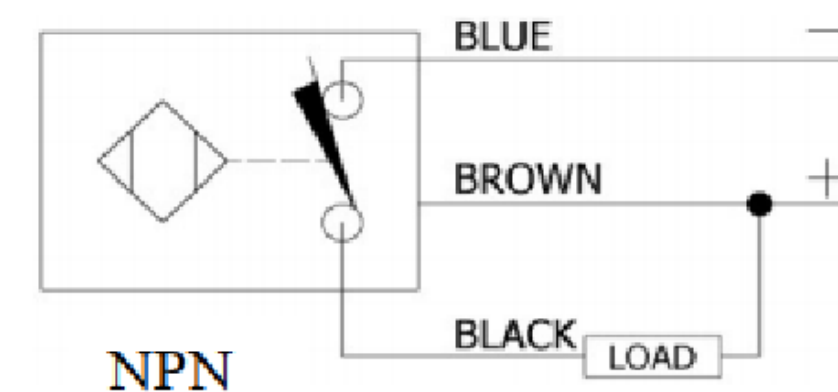
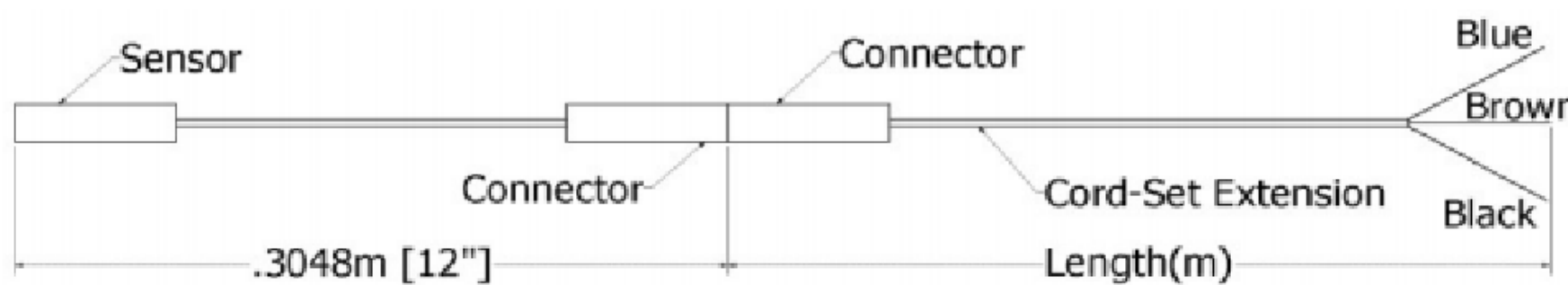
PNP or NPN	NC or NO	02	Meters
PNP or NPN	NC or NO	06	Meters
PNP or NPN	NC or NO	12	Meters

Example: PNP, normally closed, cord-set extension length 6 meters = 244-PNP-NC-06

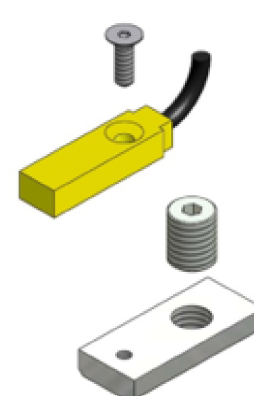
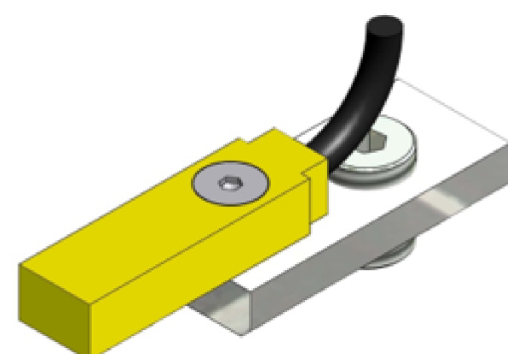
### PNP Diagrams



### NPN Diagrams



KIT INCLUDES – SENSOR, CORDSET EXTENSION, AND MOUNTING HARDWARE



	DRAWN BY: PHW CHECKED BY: -- LAST SAVED BY: Paul	DATE: 11/26/2017 DATE: DD/MM/YYYY DATE: 10/28/2021	MATERIAL:	TITLE: T-SLOT SENSOR KIT
	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. TOLERANCES UNLESS NOTED OTHERWISE:	.X ± .762 .XX ± .254 .XXX ± .127 ANG ± 0°30'	FINISH:	SCALE 1:1 SHEET SIZE C
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