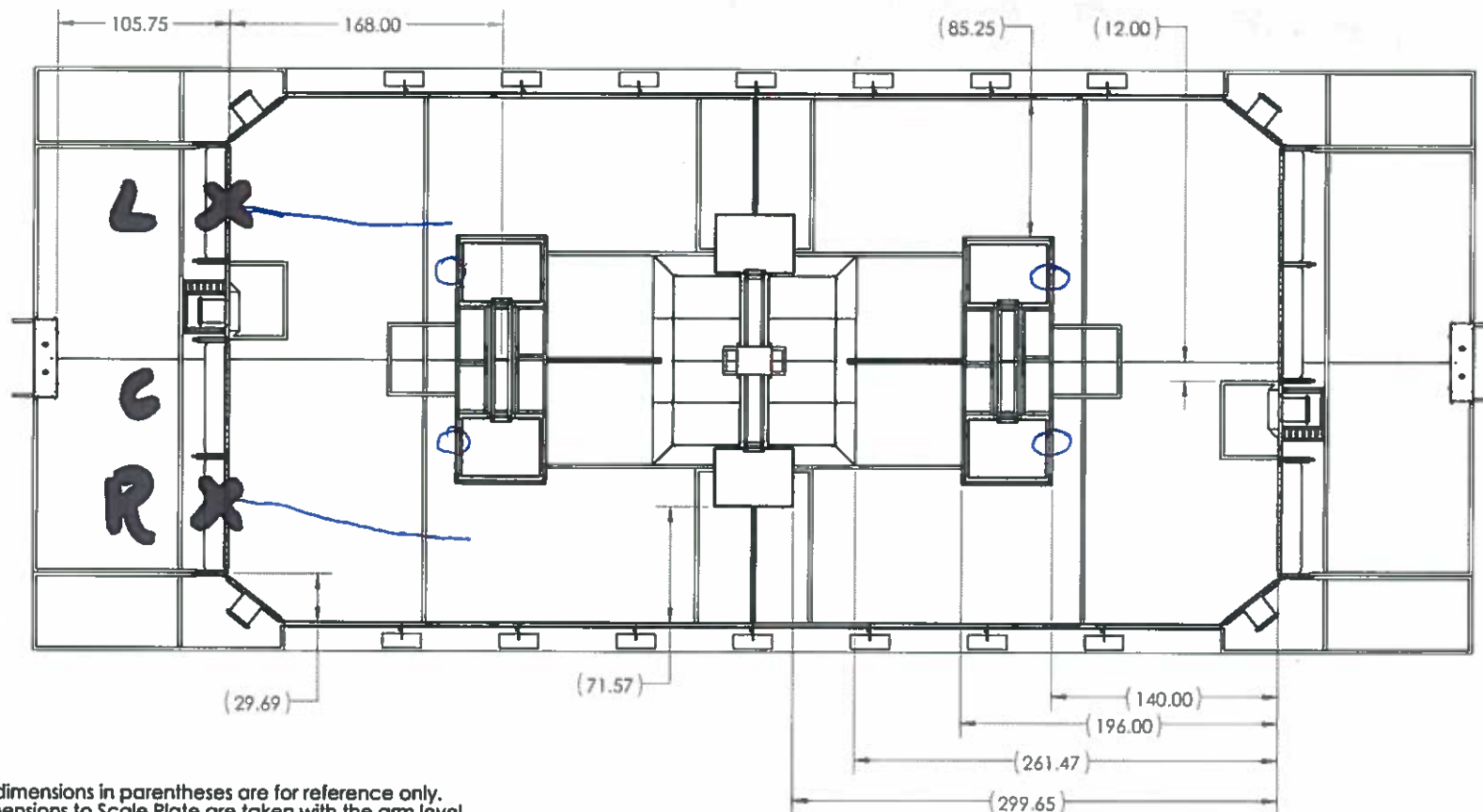


4 3 2 1



**Notes:**

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2. Dimensions to Scale Plate are taken with the arm level.

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN	
TOLERANCES:		CHECKED	
FRACTIONALS 1/16		ENG APPR.	
ANGULARS MATCH 1" Ø BND ±1°		MFG APPR.	
TWO PLACE DECIMAL ±0.01		Q.A.	
THREE PLACE DECIMAL ±0.001		COMMENTS:	
INTERPRET GEOMETRIC TOLERANCES PER:			
MATERIAL			
FINISH			
NEXT ASSY	USED ON		
APPLICATION			
DO NOT SCALE DRAWING			

**2018 Field Layout and Marking**

SIZE **B** DWG. NO. **FE-00041** REV

SCALE: 1:70 WEIGHT: SHEET 3 OF 4

**FIRST ROBOTICS COMPETITION**

**SOLIDWORKS**

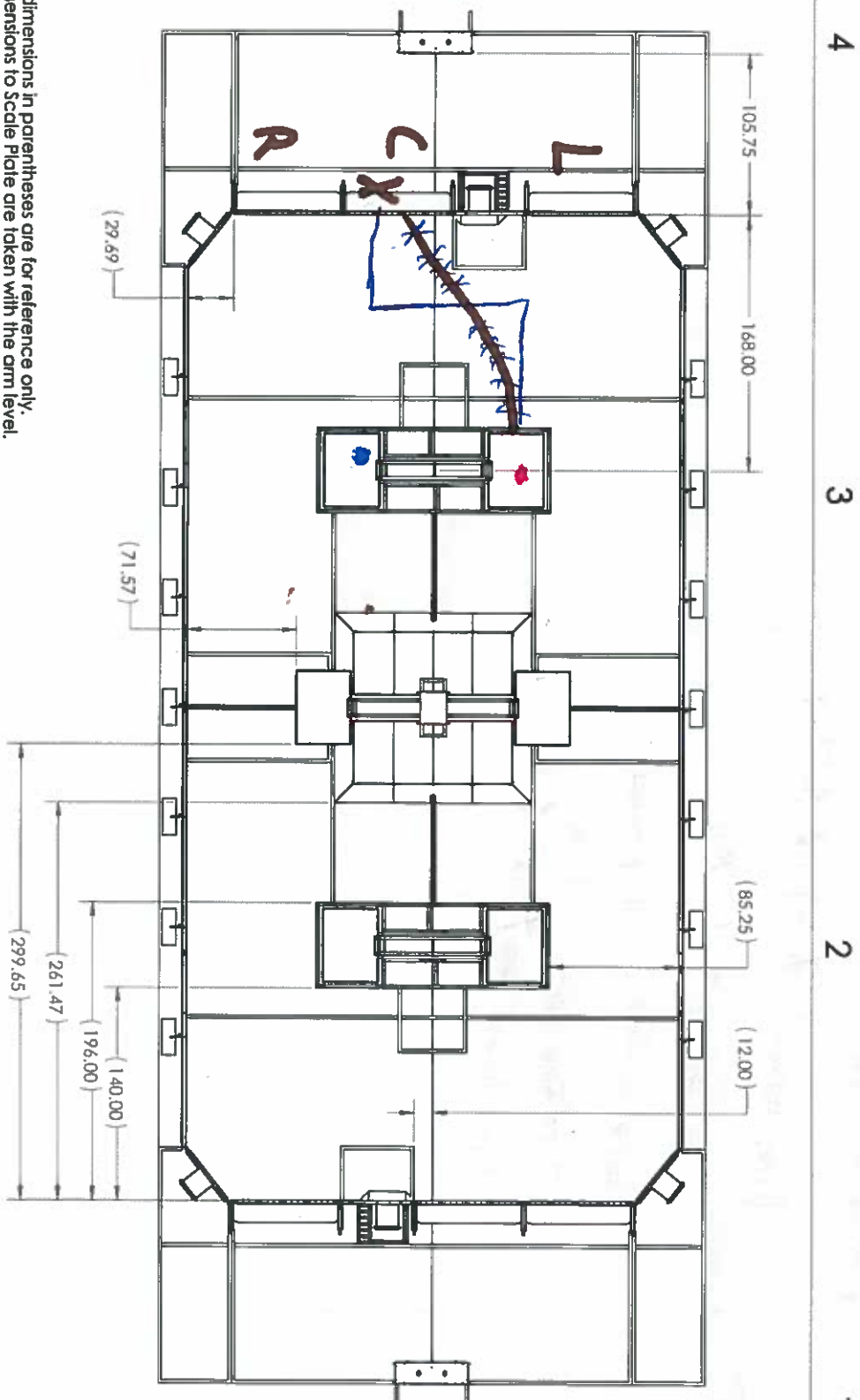
4 3 2 1

LEFT  
or  
RIGHT STATION, AUTO LINE

MOVE FORWARD PAST AUTO LINE (140)



Robot (R08) Team Ultimate



- Notes:
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UNLESS OTHERWISE SPECIFIED:		DRAWN		DATE	
DIMENSIONS ARE IN INCHES		CHECKED			
TOLERANCES		BY DATE			
FRACTIONAL 1/16"		BY DATE			
ANGULAR 3/16" 30° 31°		BY DATE			
TWO PLACE DECIMAL (2.D)		BY DATE			
THREE PLACE DECIMAL (3.D)		BY DATE			
HORIZONTAL DIMENSIONS		BY DATE			
VERTICAL DIMENSIONS		BY DATE			
TOLERANCE PER MATERIAL		BY DATE			
NEXT LIST		BY DATE			
APPLICATION		BY DATE			
USED ON		BY DATE			
DO NOT SCALE DRAWINGS		BY DATE			
TITLE:		2018 Field Layout and Marking			
SIZE:		DWG. NO. B FE-00041			
SCALE: 1/2"=1'-0"		REV			
SHEET 3 OF 4					

# CENTER STATION, LEFT SWITCH

Drive forward (70 m) (R. Potatoes)

Turn Left 90° (IMU)

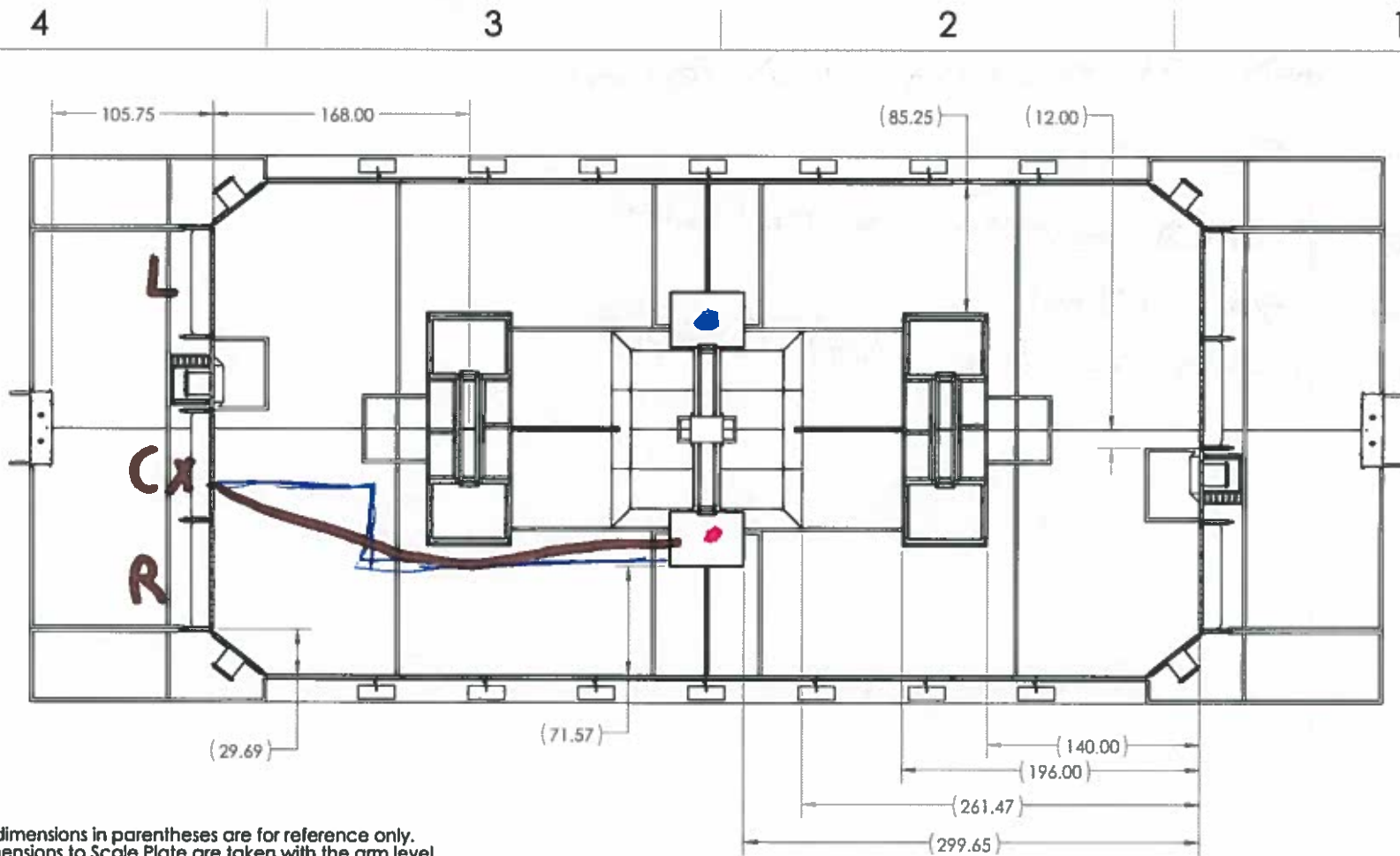
Drive forward (100 in) (Potatoes)

Turn Right (90°) (IMU)

Drive forward (70 in) (VHorse)



Imu/ Rotaklas/ Ultrasonic



Notes:

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TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm 0.01$   
THREE PLACE DECIMAL  $\pm 0.001$

INTERPRET GEOMETRIC  
TOLERANCING PER:  
MATERIAL

FINISH

DRAWN  
CHECKED  
ENG APPR.  
MFG APPR.  
D.A.  
COMMENTS

NAME DATE



TITLE:

2018 Field Layout  
and Marking

SIZE

B

DWG. NO.

FE-00041

REV

SCALE: 1:70 WBGT:

SHEET 3 OF 4

NEXT ASSY

USED ON

APPLICATION

DO NOT SCALE DRAWING

# CENTER STATION, RIGHT SCALE

MOVE FORWARD TO SWITCH (142) (ROTATION)

TURN  $90^{\circ}$  (IMU)

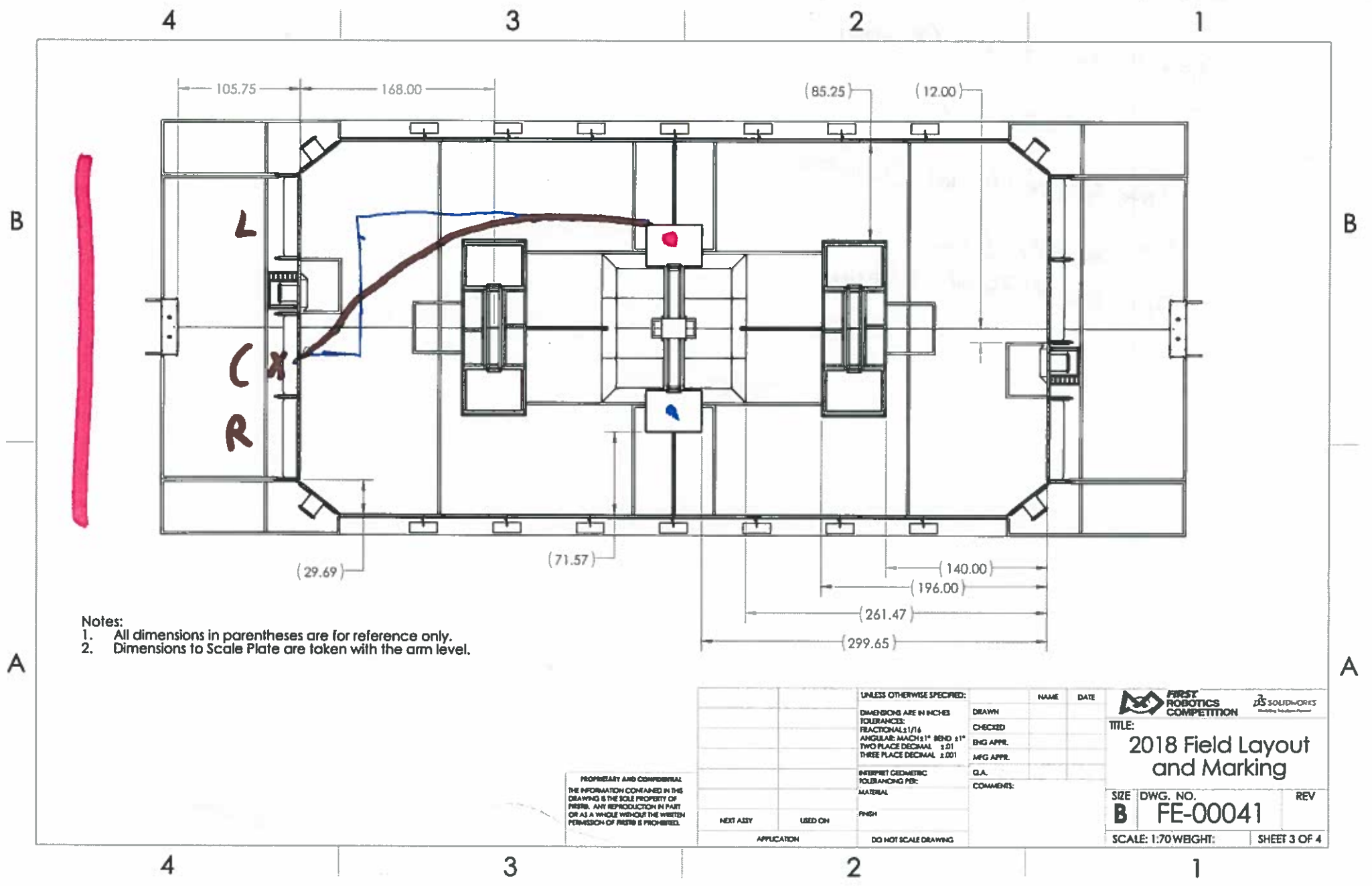
MOVE FORWARD TO END OF SWITCH (ROTATION)

TURN  $-90^{\circ}$  (IMU)

MOVE FORWARD TO SCALE (104) (ULTRASOUND)



Rotational ultrasonic / 7mu



- Notes:
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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRAWN	
TOLERANCES:		CHECKED	
FRACTIONAL: 1/16		ENG APPR.	
ANGULAR: MATCH 1° BEND ±1°		MFG APPR.	
TWO PLACE DECIMAL ±.01		G.A.	
THREE PLACE DECIMAL ±.001		COMMENTS:	
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
FINISH			
NEXT ASSY	USED ON		
APPLICATION		DO NOT SCALE DRAWING	

**FIRST ROBOTICS COMPETITION** **SOLIDWORKS**  
**2018 Field Layout and Marking**  
 SIZE **B** DWG. NO. **FE-00041** REV  
 SCALE: 1:70 WEIGHT: SHEET 3 OF 4

# CENTER STATIONS, LEFT SCALE

Drive Forward (70 in) (Rotations)

Turn Left (90°) (1 in)

Drive Forward (100 in) (Rotations)

Turn Right (90°) (1 in)

Drive Forward (250 in) (Rotations)





Architectural floor plan of a large hall, oriented vertically. The plan shows a central area with a large rectangular table and chairs, and two smaller rectangular tables with chairs at the top and bottom. The dimensions are indicated on the right side: 105.75, 168.00, (85.25), and (12.00). The plan includes various furniture items such as tables, chairs, and a central table. The layout is symmetrical, with a central aisle and side aisles. The plan is labeled with '4' at the top, '3' on the right, '2' at the bottom, and '1' at the bottom right. The plan is drawn in black lines on a white background.

Architectural floor plan of a restaurant layout. The plan shows a central service area with a counter and a central island. The layout includes a main dining area, a bar area, and a kitchen area. Dimensions are provided for various sections:

- Overall width: (299.65)
- Overall depth: (140.00)
- Bar area width: (85.25)
- Bar area depth: (12.00)
- Central island width: (261.47)
- Central island depth: (196.00)

100

CENTER STATION, RIGHT SWITCH

MOVE FORWARD TO SWITCH (1110) (VZBN)



4  
3  
2  
1



- 

4

3

2

1

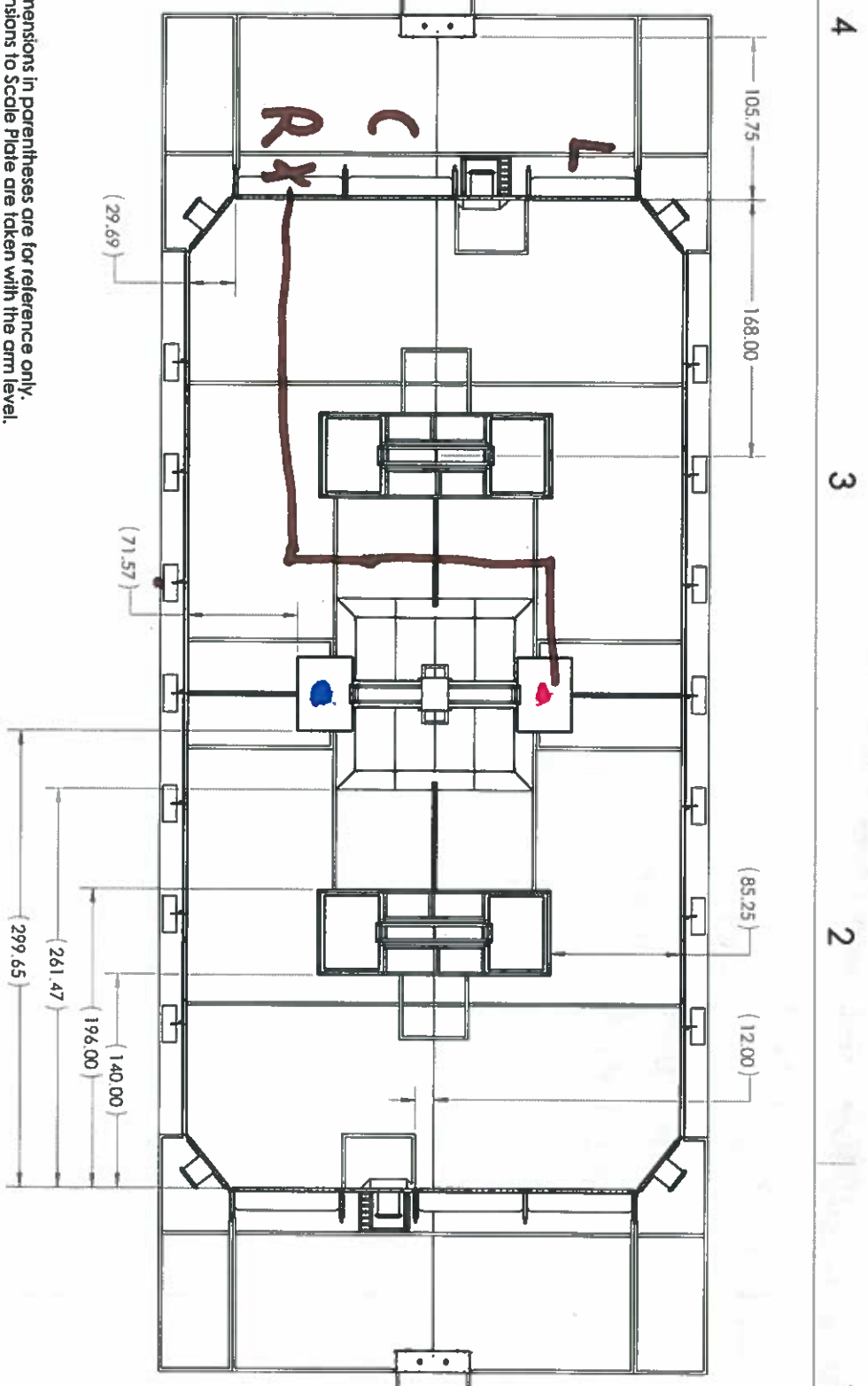
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Right Station / Right Scale

move Forward to Scale 300 in (1143000)

Turn Right? ~~800~~ (1 mi?)

Robotics / Team / University



- Notes:
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LATEST OTHERWISE SPECIFIED:			
DRAWING ARE IN INCHES			
DIMENSIONS ARE IN INCHES			
FLOOR PLANS			
ANGULAR MACHINE: 180° 31°			
TWO PLACE BECHAM: 120°			
THREE PLACE BECHAM: 120°			
REFLECTING GEOMETRIC			
TOLERANCE: 1/8"			
MATERIAL			
FINISH			
NEXT ASST			
USED ON			
APPLICATION			
DO NOT SCALE DRAWING			
TITLE:			
2018 Field Layout and Working			
DRAWN: B			
CHECKED: B			
BIG APP: B			
BIG APP: B			
D.A.			
COMMENT:			
SIZE: DWG. NO. B			
FE-000041			
SCALE: 1/2"=1'-0"			
SHEET 3 OF 4			

Robot Station, Left Scale

Move Forward ~~(20cm)~~ Port Switch (20cm) (Robot has 1

Turn Left  $90^\circ$  ( $\rightarrow$ mu)

Move Forward (15cm) (Rotations)

Turn Right  $90^\circ$  ( $\rightarrow$ mu) (ultrasound)

Move to scale (71 in)



Architectural floor plan of a large hall with dimensions and handwritten annotations. The plan shows a rectangular room with a central aisle and side aisles. Dimensions are provided in parentheses for various sections. Handwritten annotations include 'L', 'C', 'R', and 'X' in the top left corner, and a blue line with arrows indicating a path or flow.

Dimensions (in parentheses):

- Top left: (29.69)
- Top center: (71.57)
- Top right: (85.25)
- Bottom left: (261.47), (196.00), (140.00)
- Bottom center: (12.00)
- Bottom right: (105.75), (168.00)

Handwritten annotations:

- 'L', 'C', 'R' in the top left corner.
- 'X' in the top left corner.
- Blue line with arrows indicating a path or flow.

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DIMENSIONS ARE IN INCHES		DRAWN			
TOLERANCES:		CHECKED			
FRACTIONS 1/16"		BY DATE			
DECIMALS .0005" AND .01"		BY DATE			
HOLE PUNCHES .015"		BY DATE			
HOLE PUNCHES .120"		BY DATE			
REFER TO GEOMETRIC		D.A.			
TOLERANCES PER:		COMMENTS			
ANALYSIS					
FINISH					
USED ON	NOT ASY				
APPLICATION					
DO NOT SCALE DRAWING					



**ROBOTICS  
COMPETITION**

**2018 Field Layout  
and Marking**

**JS SOLIDWORKS**  
Engineering Software

**SIZE** DWG. NO. **B FE-00041**

**SCALE:** 1:20 WEIGHT:

**REV**

**SHEET 3 OF 4**

Right Station, Right Switch

~~Page 7~~

Move forward to switch (168 in) (0.1729 cm)

## Deposit cube







Run + Station, Left Switch

Move forward post switch (~~156m~~) (200m) (Rotations)

Turn 90° Left (1m)

Drive to switch (156m) (Rotations)

Turn 90° Left (1m)


Drive to switch (ultrasonic)



4 3 2 1



- A

 <b>FIRST ROBOTICS COMPETITION</b>		 <b>3S SOLUTIONS</b> <small>Robotics Training Experts</small>	
<b>TITLE:</b> <h1>2018 Field Layout and Marking</h1>			
<b>SIZE</b> DWG. NO. <b>B FE-00041</b>		<b>REV</b>	
<b>SCALE:</b> 1/20=BIGHT:			
<b>SHEET 3 OF 4</b>			

SIZE DWG. NO. REV  
**B** **FE-00041**  
 SCALE: 1/70 DWGHT: SHEET 3 OF

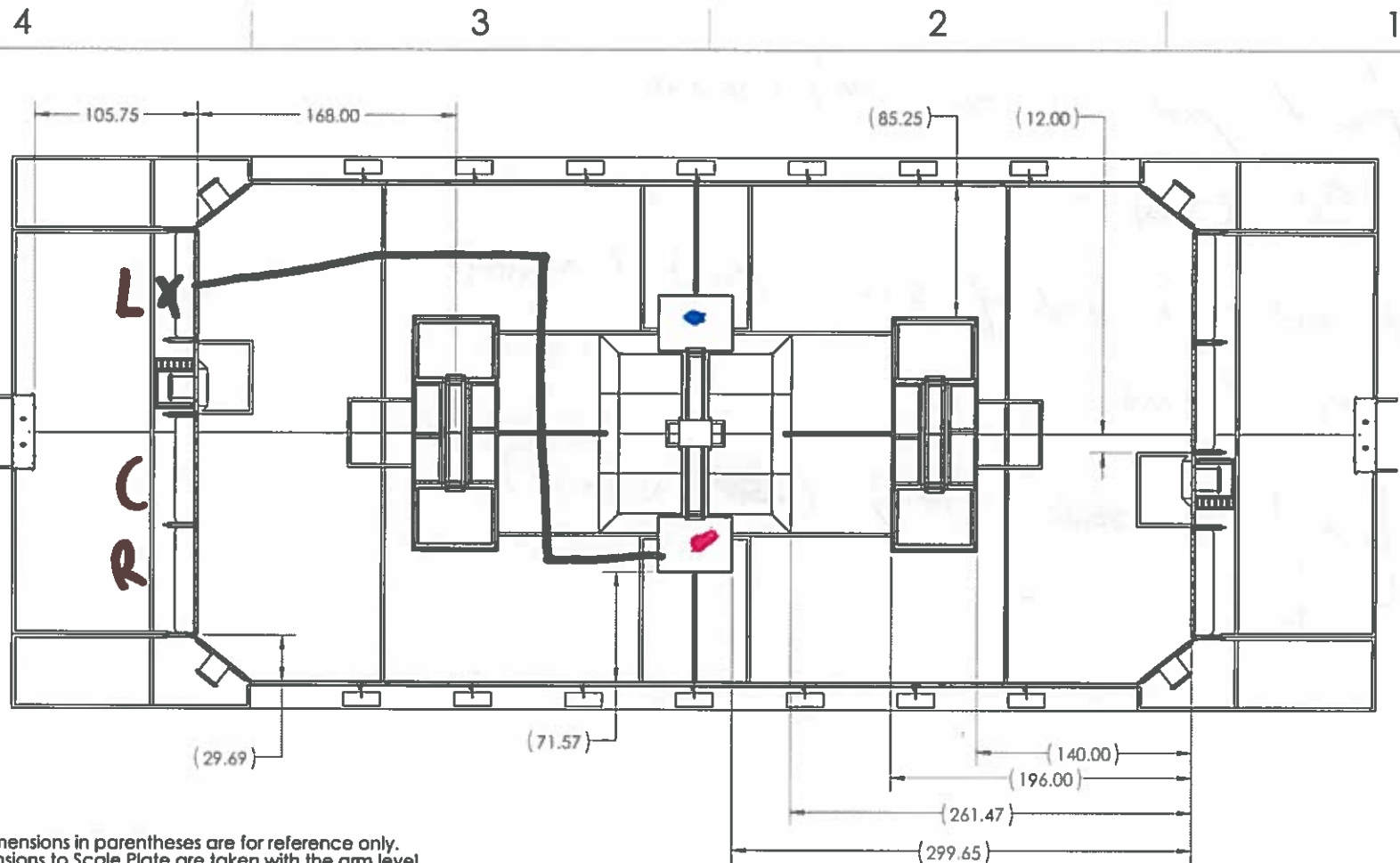
SIZE DWG. NO. REV  
**B** **FE-00041**  
 SCALE: 1/70 DWGHT: SHEET 3 OF

LEFT STATION, LEFT SWITCH Vision

MOVE FORWARD TO SWITCH (168) (VISION)  
Turn 90° (CLM)



Rotary / 2nd Vt pasant



Notes:

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TOLERANCES:  
FRACTIONALS 1/16  
ANGULAR: MACH 1/1° BEND 1/1°  
TWO PLACE DECIMAL ±.01  
THREE PLACE DECIMAL ±.001

INTERPRET GEOMETRIC  
TOLERANCING PER:  
MATERIAL

FINISH

DO NOT SCALE DRAWING

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

NAME DATE



FIRST  
ROBOTICS  
COMPETITION

SOLIDWORKS  
Sustaining Your Success

TITLE:

2018 Field Layout  
and Marking

SIZE

B

DWG. NO.

FE-00041

REV

SCALE: 1:70 WBGT:

SHEET 3 OF 4

# LEFT STATION RIGHT SWITCH

Move forward past switch (196) (Rotations)

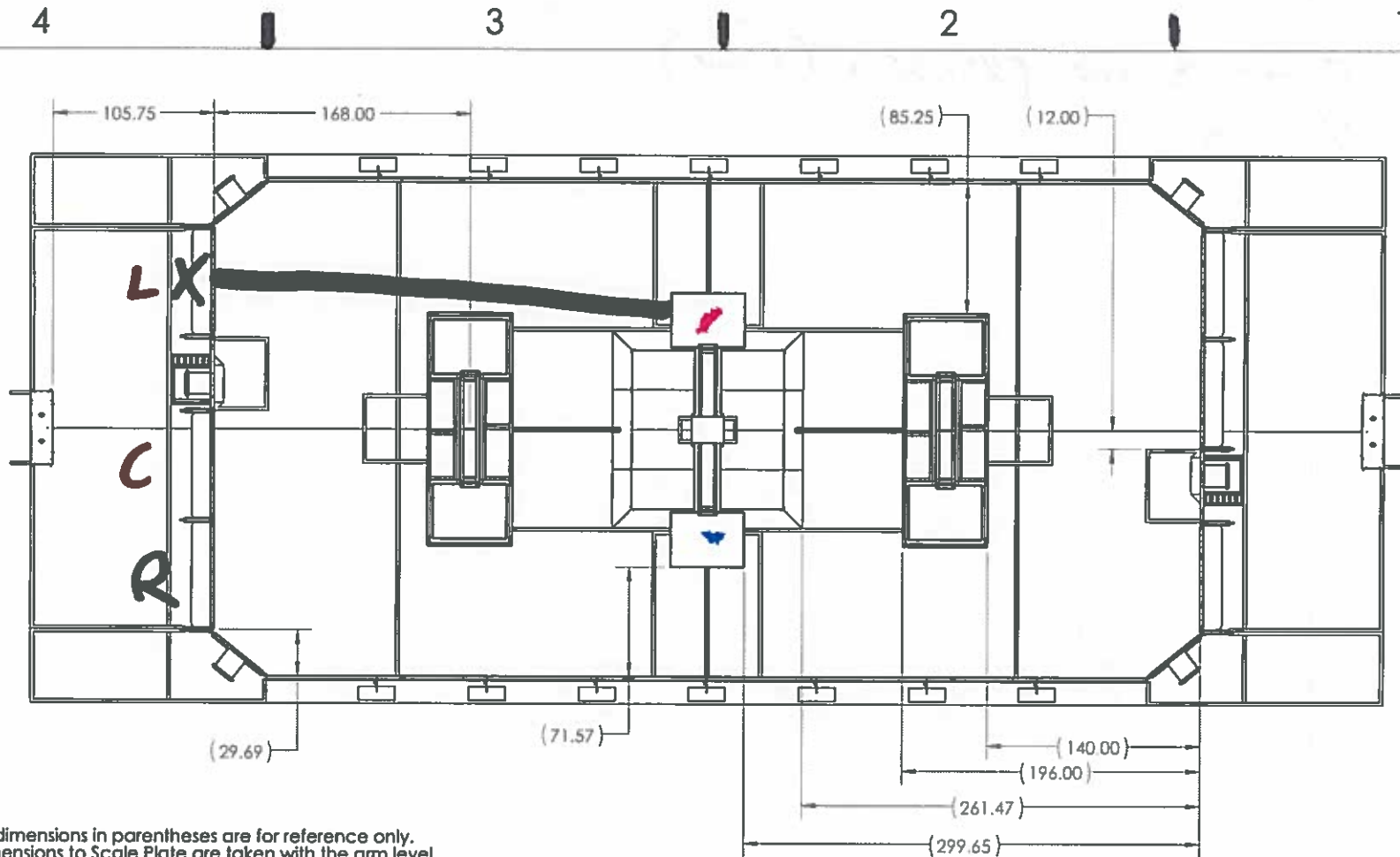
Turn  $90^\circ$  (IMU)

Move forward to end of scale (155) (Rotations)

Turn  $-90^\circ$  (IMU)

Move forward to scale (104) (~~103~~ - ultrasonic)

IMV Rotaries



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TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm 0.01$   
THREE PLACE DECIMAL  $\pm 0.001$

INTERPRET GEOMETRIC  
TOLERANCING PER:  
MATERIAL

FINISH

DO NOT SCALE DRAWING

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

NAME DATE



TITLE:

2018 Field Layout  
and Marking

SIZE

B

DWG. NO.

FE-00041

REV

SCALE: 1:70 WBGT:

SHEET 3 OF 4

LEFT STATION, LEFT SCALE

MOVE FORWARD TO SCALE (299.65) (ROTATIONS)

Turn  $90^{\circ}$  (CW)

XX



4  
3  
2  
1



- A

SIZE DWG. NO. REV  
**B** **FE-00041**  
 SCALE: 1:70 WEIGHT: SHEET 3 OF 4

# LEFT STATION, RIGHT SWITCH

Move forward past switch (196) (count rotations)

Turn  $90^\circ$  ~~to~~ (IMU)

Move forward to end of switch (155) (rotations)

Turn  $90^\circ$  (IMU)

Move forward ~~to~~ distance (ultrasonic distance)

