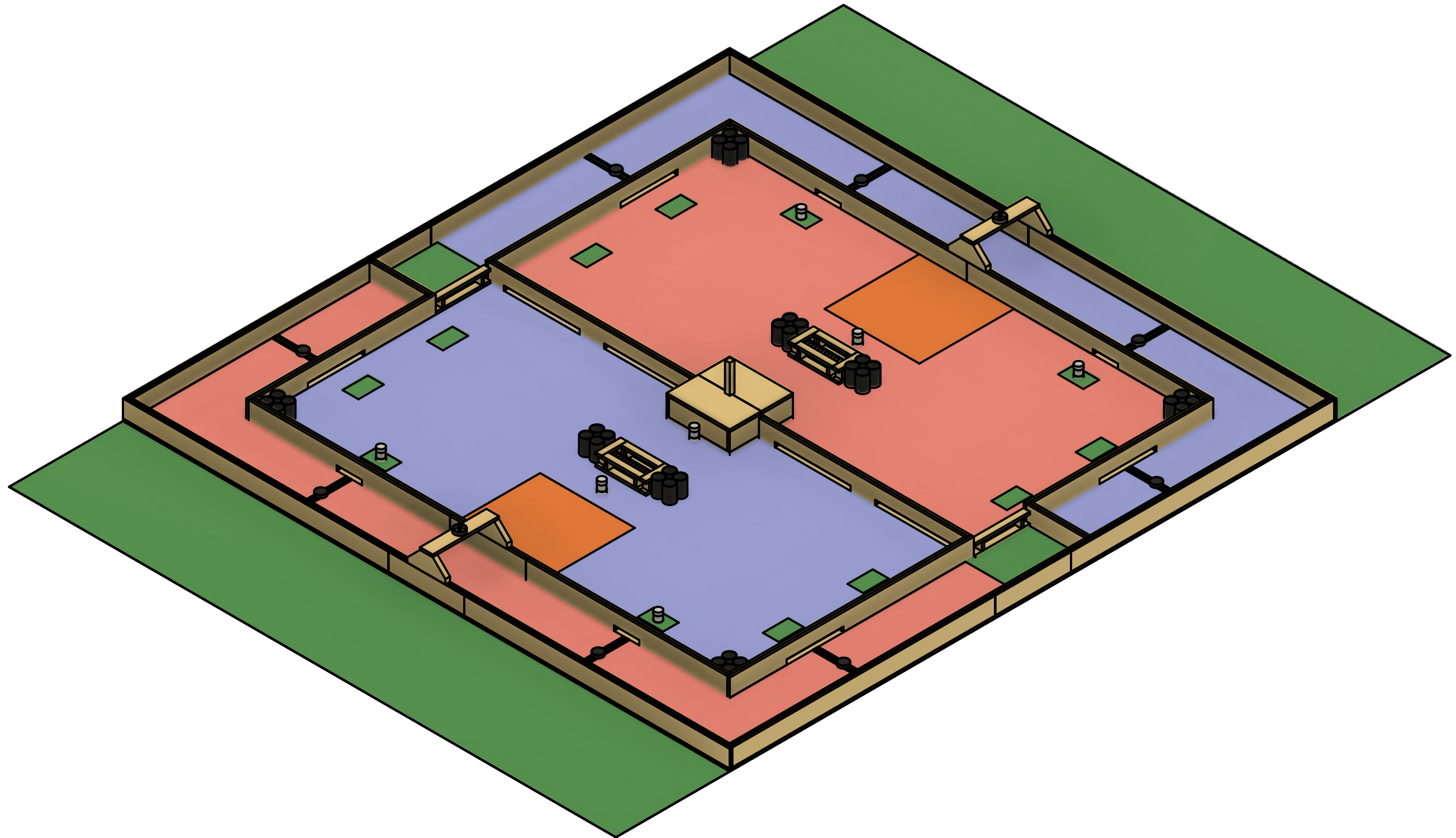
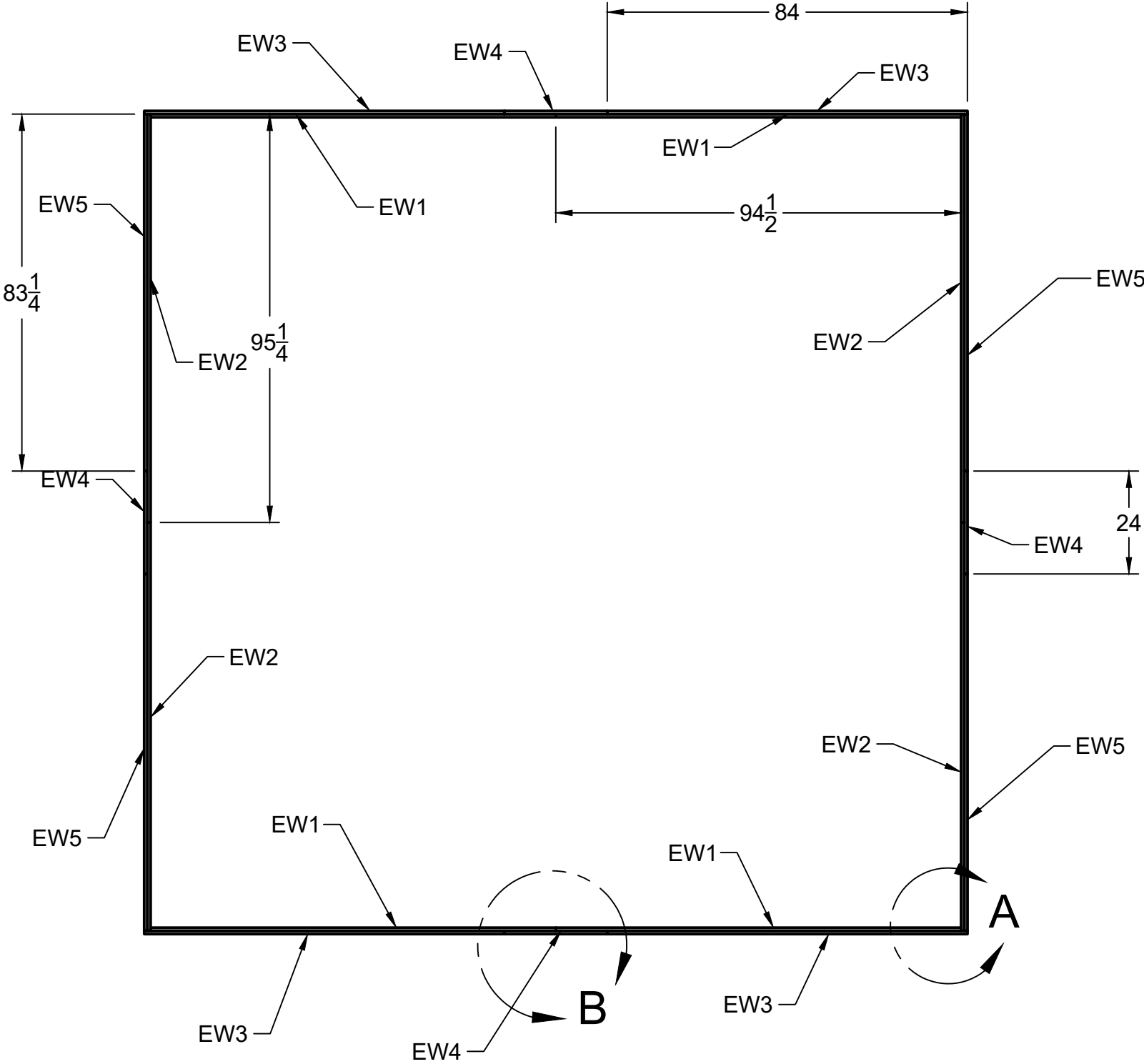


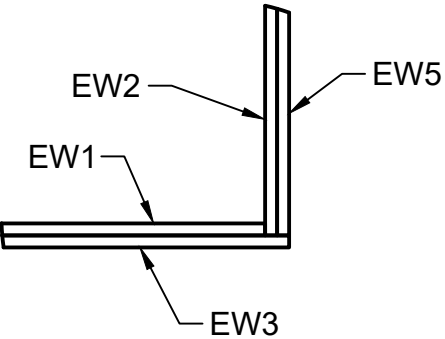


|                                                |                                    |                            |                                                                                       |                                                                                           |
|------------------------------------------------|------------------------------------|----------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| PROJECT:<br><b>Skills Canada Robotics 2027</b> | DRAWING NUMBER:<br><b>1/2</b>      | SCALE:<br><b>1:24</b>      |  | <b>Mobile Robotics National Drawings</b><br><b>Calgary, Alberta May 26 - May 28, 2027</b> |
| DRAWING TITLE:<br><b>2027 Court</b>            | DRAWN BY:<br><b>Steve Claassen</b> | DATE:<br><b>2026-05-23</b> |                                                                                       |                                                                                           |

# Exterior Wall Layout



## Corner (Detail A)



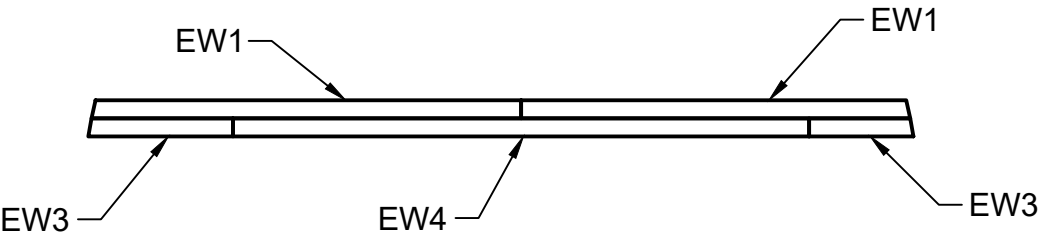
Note: This is a diagram of only the exterior court walls.

All pieces are made from 3/4 inch plywood

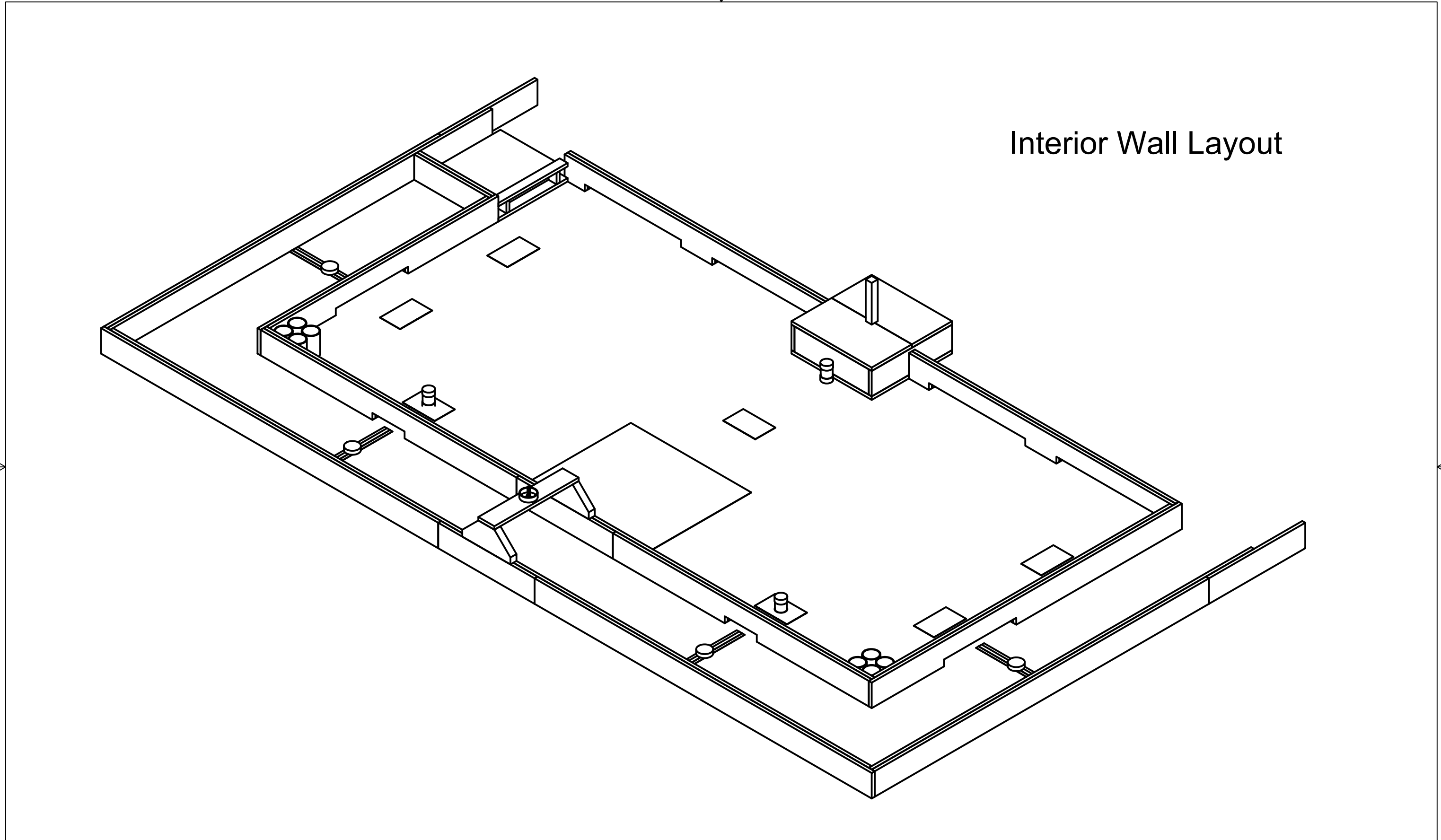
Walls are constructed by overlapping 2 pieces of plywood to achieve a 1 1/2 inch thick wall

ALL WALLS ARE 5 1/2 INCHES IN HEIGHT, CUT FROM 3/4 INCH PLYWOOD

## Mid-Wall Connection (Detail B)

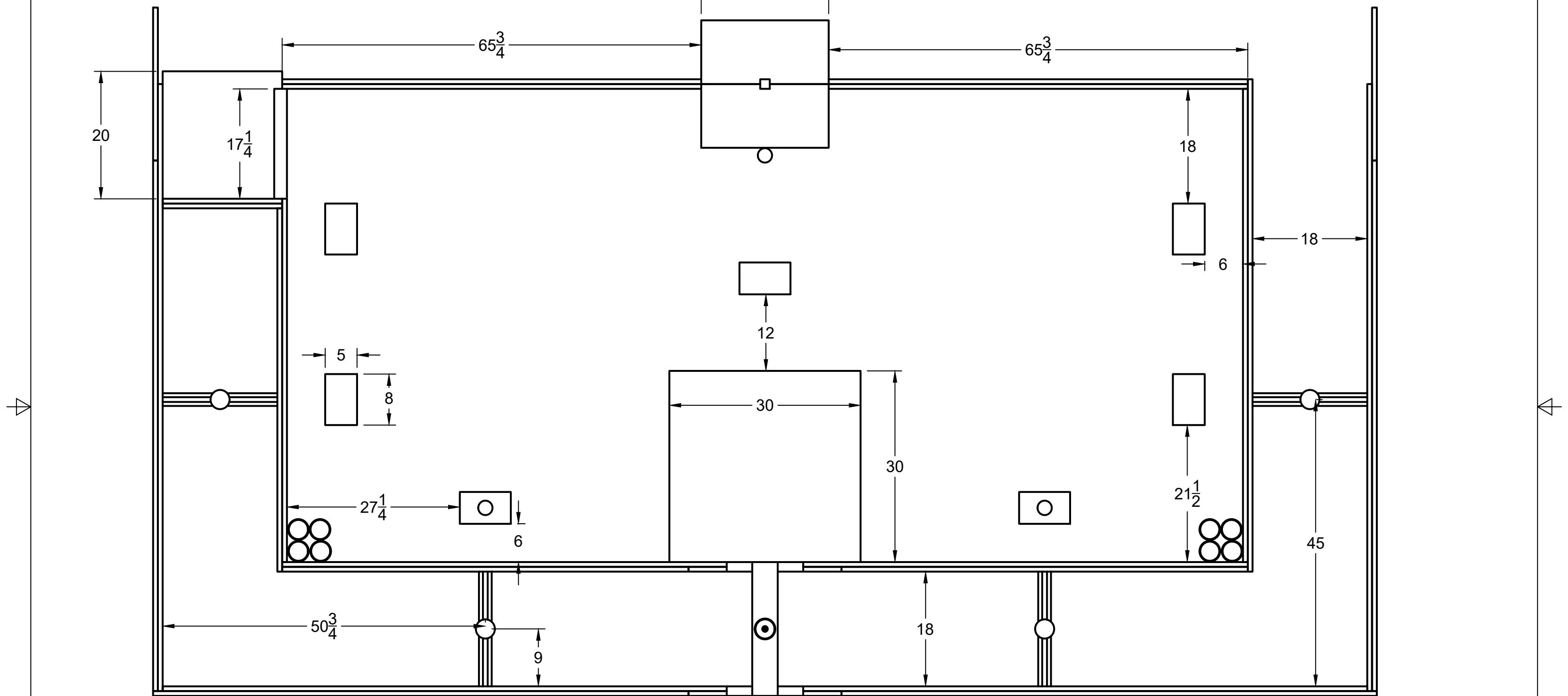


| ITEM | QTY | Description      | SIZE                    |
|------|-----|------------------|-------------------------|
| EW1  | 4   | 3/4 inch Plywood | 3/4" x 5 1/2" X 94 1/2" |
| EW2  | 4   | 3/4 inch Plywood | 3/4" x 5 1/2" X 95 1/4" |
| EW3  | 4   | 3/4 inch Plywood | 3/4" x 5 1/2" X 84"     |
| EW4  | 4   | 3/4 inch Plywood | 3/4" x 5 1/2" X 24"     |
| EW5  | 4   | 3/4 inch Plywood | 3/4" x 5 1/2" X 83 1/4" |



|                                                |                                    |                            |                                                                                       |                                                                                           |
|------------------------------------------------|------------------------------------|----------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| PROJECT:<br><b>Skills Canada Robotics 2027</b> | DRAWING NUMBER:<br><b>1/5</b>      | SCALE:<br><b>1:16</b>      |  | <b>Mobile Robotics National Drawings</b><br><b>Calgary, Alberta May 26 - May 28, 2027</b> |
| DRAWING TITLE:<br><b>2027 Final Court</b>      | DRAWN BY:<br><b>Steve Claassen</b> | DATE:<br><b>2026-02-19</b> |                                                                                       |                                                                                           |

# Interior Wall Layout



PROJECT:

**Skills Canada Robotics 2027**

DRAWING TITLE:

**2027 Final Court**

DRAWING NUMBER:

**2/5**

DRAWN BY:

**Steve Claassen**

SCALE:

**1:15**

DATE:

**2026-02-19**



**Mobile Robotics National Drawings**  
**Calgary, Alberta May 26 - May 28, 2027**

## - FW



## SWL1



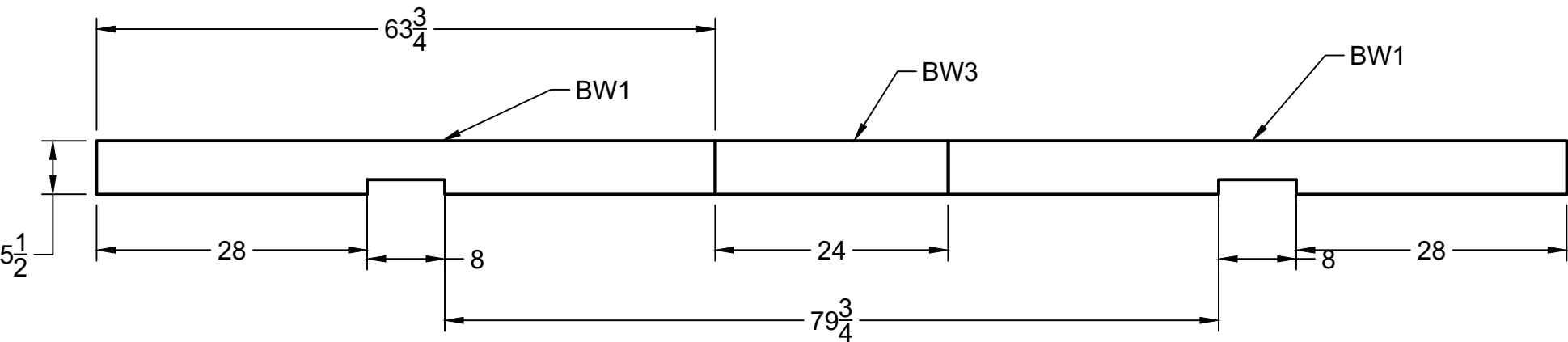
## - SWAO



Walls are constructed by overlapping 2 pieces of plywood to achieve a 1  $\frac{1}{2}$  inch thick wall.

| ITEM | QTY | Description            | SIZE                                                     |
|------|-----|------------------------|----------------------------------------------------------|
| FW   | 4   | Front Walls            | $\frac{3}{4}$ " X 5 $\frac{1}{2}$ " X 65 $\frac{3}{4}$ " |
| SWAO | 4   | Side Wall - Autonomous | $\frac{3}{4}$ " x 5 $\frac{1}{2}$ " x 57"                |
| SWL1 | 2   | Side Wall Long         | $\frac{3}{4}$ " X 5 $\frac{1}{2}$ " X 77 $\frac{1}{4}$ " |
| SWL2 | 2   | Side Wall Long         | $\frac{3}{4}$ " x 5 $\frac{1}{2}$ " x 74 $\frac{1}{4}$ " |

Back Interior Wall (Faces Into Court)

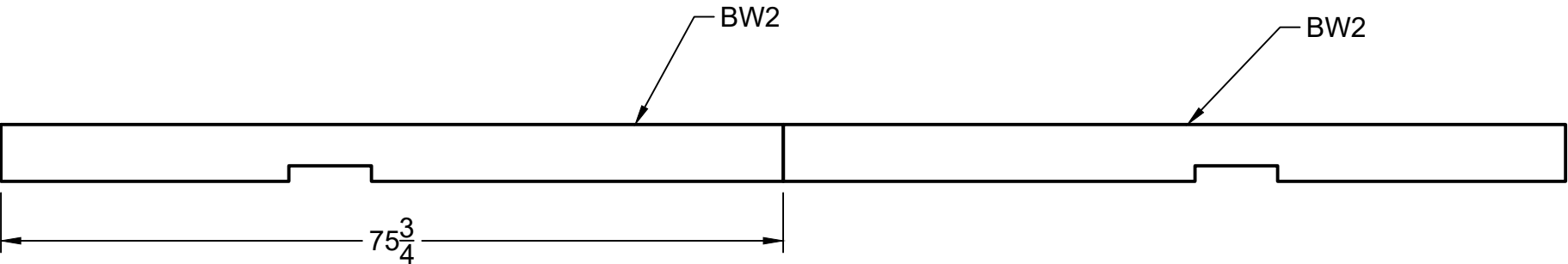


NOTE: All pieces are made from  $\frac{3}{4}$  inch plywood.

Walls are constructed by overlapping 2 pieces of plywood to achieve a  $1\frac{1}{2}$  inch thick wall.

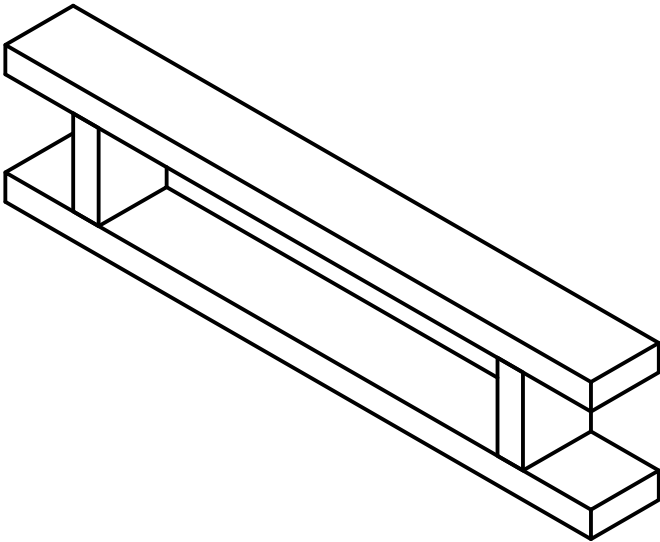
ALL WALLS ARE  $5\frac{1}{2}$  INCHES IN HEIGHT, CUT FROM  $\frac{3}{4}$  INCH PLYWOOD.

Back Interior Wall (Faces Out)



| ITEM | QTY | Description        | SIZE                                                   |
|------|-----|--------------------|--------------------------------------------------------|
| BW1  | 4   | Back Interior Wall | $\frac{3}{4}$ " X $5\frac{1}{2}$ " X $63\frac{3}{4}$ " |
| BW2  | 4   | Back Interior Wall | $\frac{3}{4}$ " x $5\frac{1}{2}$ " x $75\frac{3}{4}$ " |
| BW3  | 2   | Back Wall - Plate  | $\frac{3}{4}$ " x $5\frac{1}{2}$ " x 24"               |

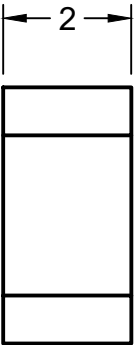
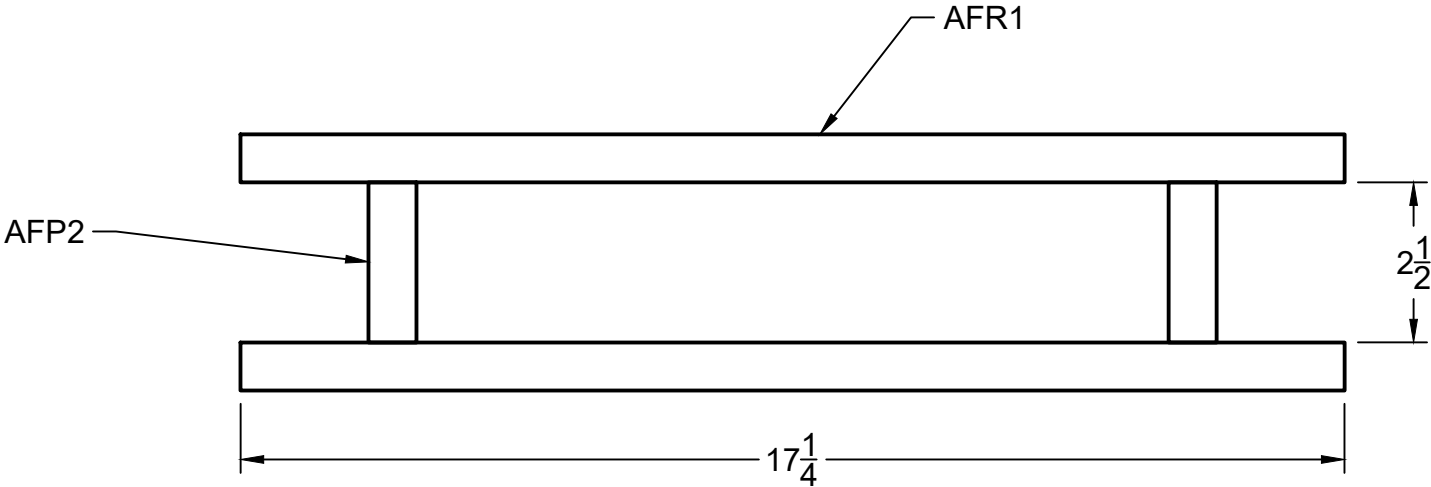
# Transfer Zone Fence



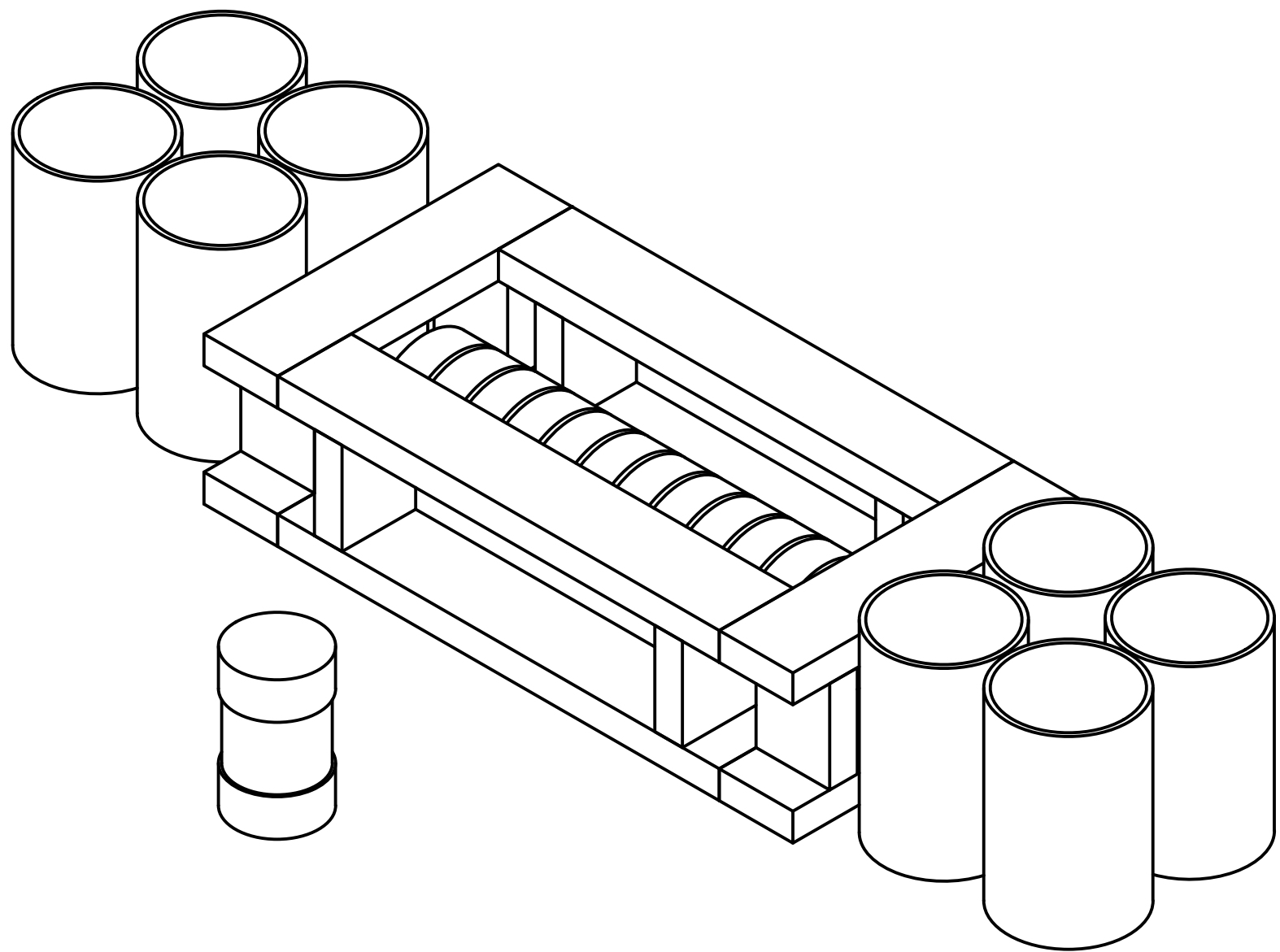
NOTE: All pieces are made from  $\frac{3}{4}$  inch plywood.

Rails and Posts are to be glued and screwed/stapled/nailed together

The Transfer Fence is to be secured between the arena and the Autonomous Zone.



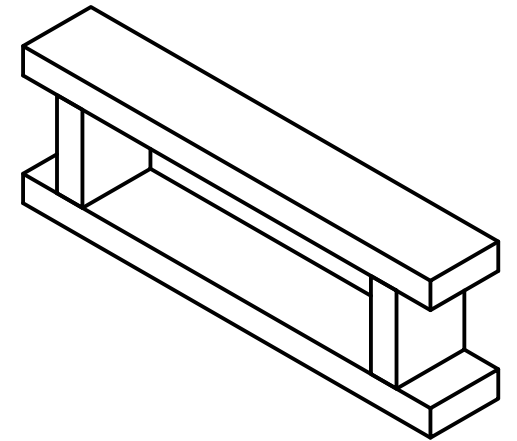
| ITEM | QTY | Description           | SIZE                                      |
|------|-----|-----------------------|-------------------------------------------|
| AFR1 | 4   | Autonomous Fence Rail | $\frac{3}{4}$ " X 2" X 17 $\frac{1}{4}$ " |
| AFP2 | 4   | Autonomous Fence Post | $\frac{3}{4}$ " x 2" x 2 $\frac{1}{2}$ "  |



|                                                    |                                    |                            |                                                                                       |                                                                                           |
|----------------------------------------------------|------------------------------------|----------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| PROJECT:<br><b>Skills Canada Robotics 2027</b>     | DRAWING NUMBER:<br><b>1/4</b>      | SCALE:<br><b>1:3</b>       |  | <b>Mobile Robotics National Drawings</b><br><b>Calgary, Alberta May 26 - May 28, 2027</b> |
| DRAWING TITLE:<br><b>Bull Coral/Barrels/Clowns</b> | DRAWN BY:<br><b>Steve Claassen</b> | DATE:<br><b>2026-05-23</b> |                                                                                       |                                                                                           |

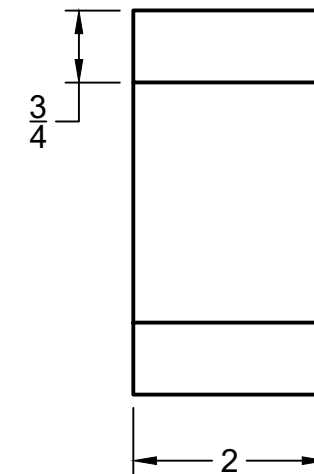
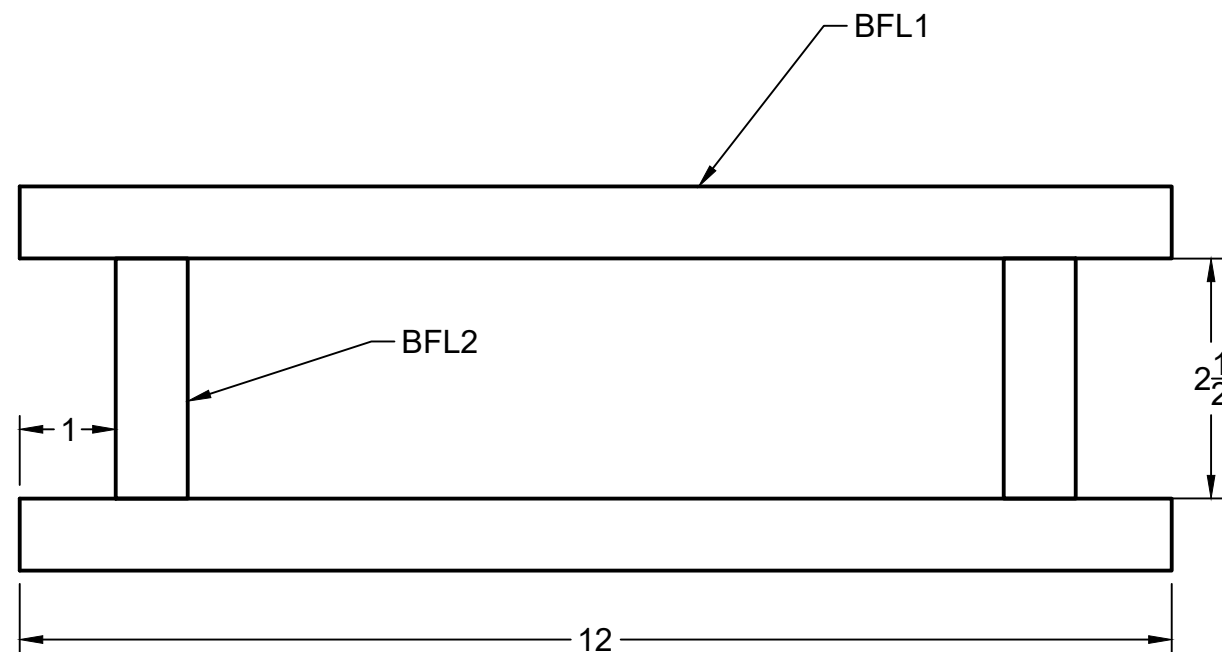


# Long Bull Fence



NOTE: All pieces are made from  $\frac{3}{4}$  inch plywood.

Ensure these pieces are glued and screwed together firmly as they will be hit by bulls (pucks) constantly during game play.



| ITEM | QTY | Description          | SIZE                                     |
|------|-----|----------------------|------------------------------------------|
| BFL1 | 8   | Long Bull Fence Rail | $\frac{3}{4}$ " X 2" X 12"               |
| BFL2 | 8   | Bull Fence Posts     | $\frac{3}{4}$ " x 2" x 2 $\frac{1}{2}$ " |

PROJECT:  
**Skills Canada Robotics 2027**

DRAWING NUMBER:  
**2/4**

SCALE:  
**1:2**

DRAWING TITLE:  
**Bull Coral/Barrels/Clowns**

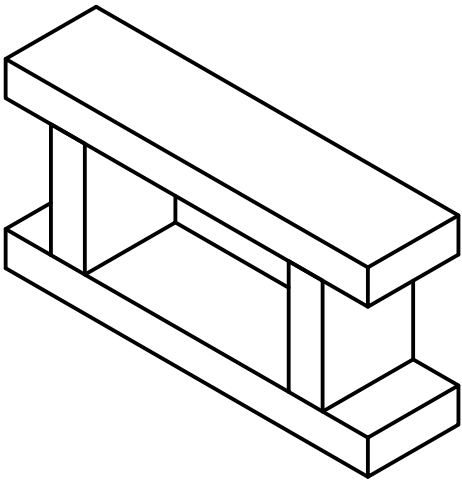
DRAWN BY:  
**Steve Claassen**

DATE:  
**2026-05-23**



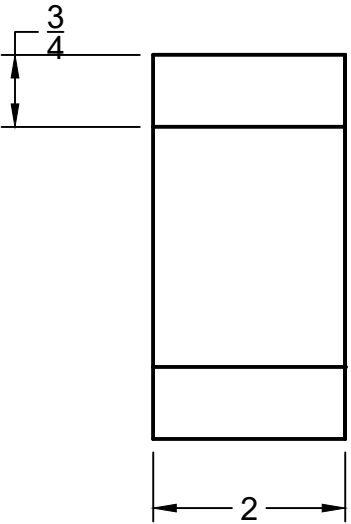
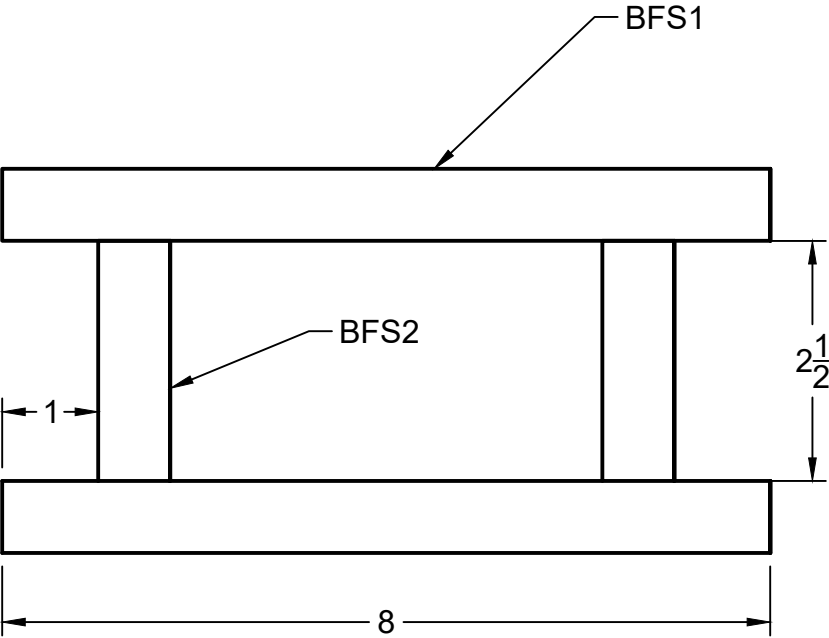
Mobile Robotics National Drawings  
Calgary, Alberta May 26 - May 28, 2027

# Short Bull Fence



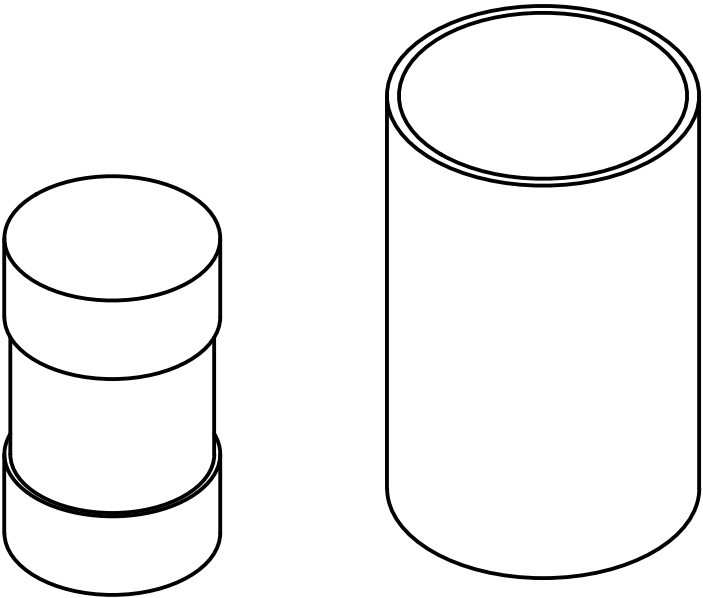
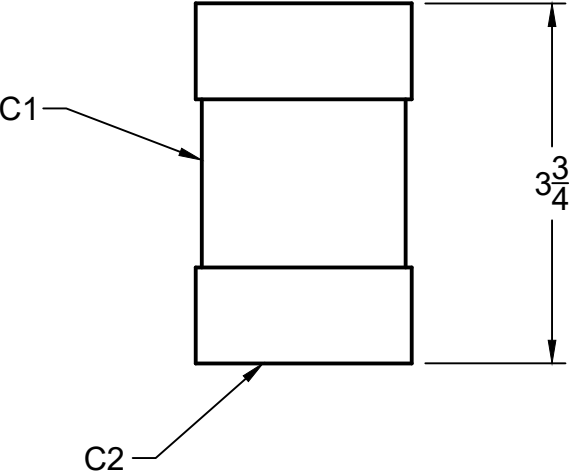
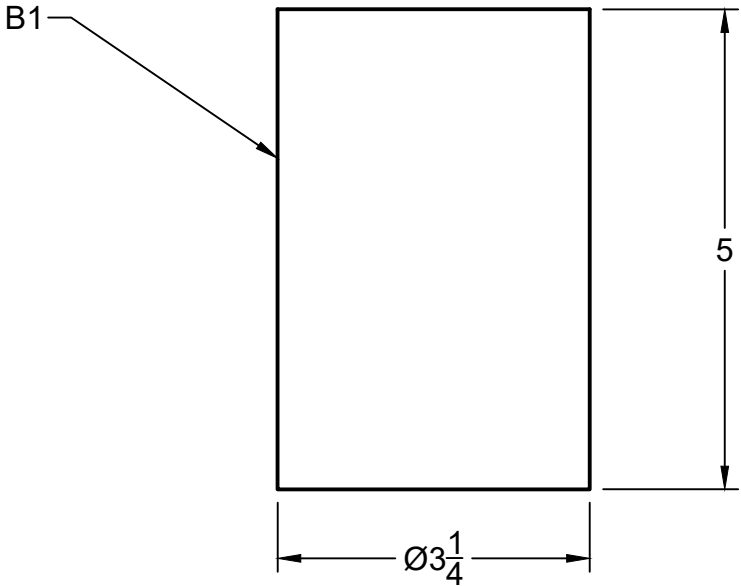
NOTE: All pieces are made from  $\frac{3}{4}$  inch plywood.

Ensure these pieces are glued and screwed together firmly as they will be hit by bulls (pucks) constantly during game play.

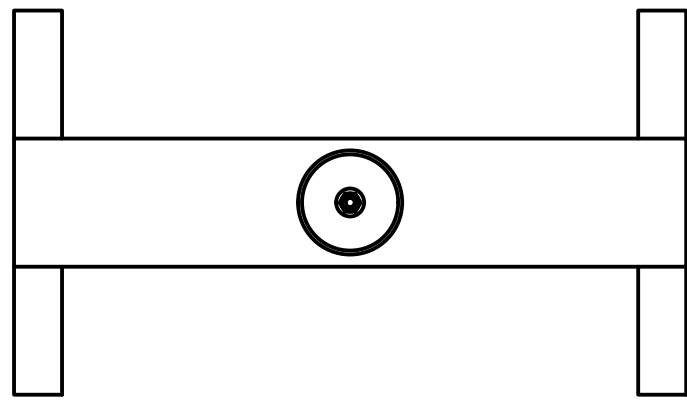


| ITEM | QTY | Description            | SIZE                                     |
|------|-----|------------------------|------------------------------------------|
| BFS1 | 8   | Short Bull Fence Rails | $\frac{3}{4}$ " X 2" X 8"                |
| BFS2 | 8   | Bull Fence Posts       | $\frac{3}{4}$ " x 2" x 2 $\frac{1}{2}$ " |

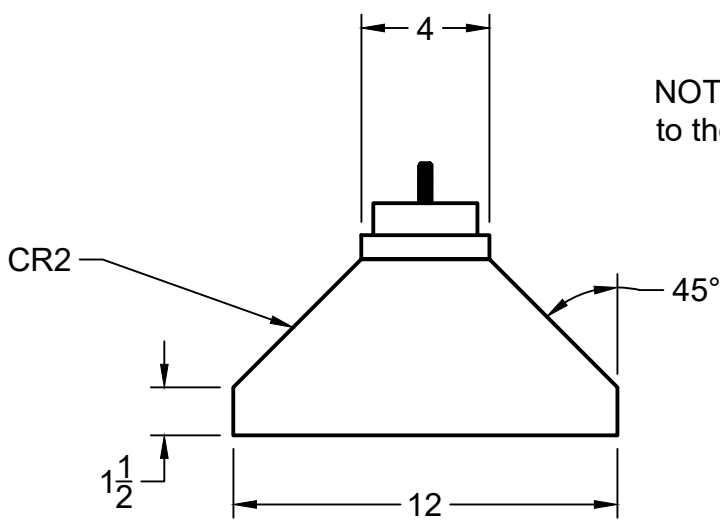
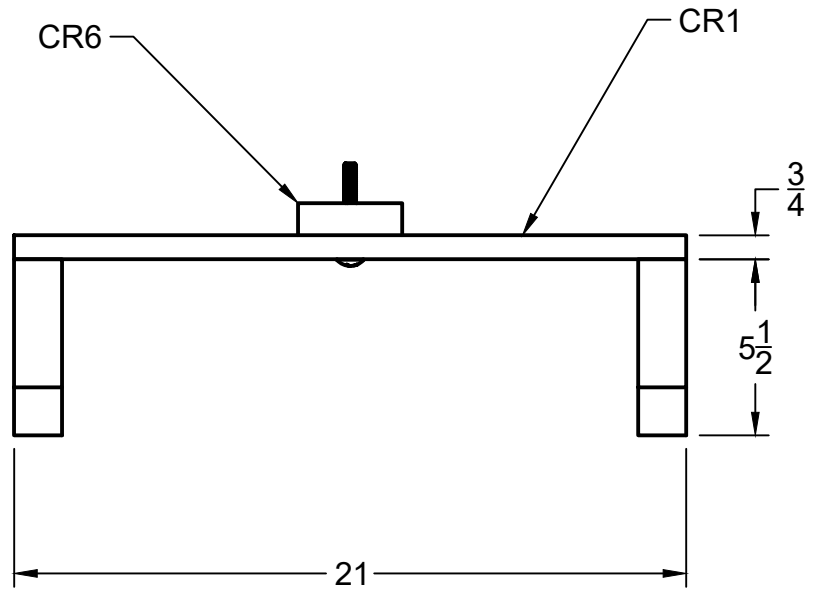
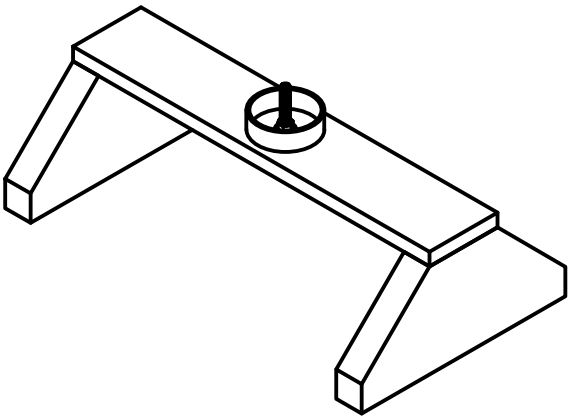
# Barrels & Clowns



| ITEM | QTY | Description                 | SIZE                  |
|------|-----|-----------------------------|-----------------------|
| B1   | 32  | Barrel - 3in Black ABS Pipe | $3\frac{1}{4}$ x 5"   |
| C1   | 6   | 2" Vacuum Pipe              | 2" x $3\frac{1}{2}$ " |
| C2   | 12  | 2" Vacuum Pipe Cap          | 2"                    |



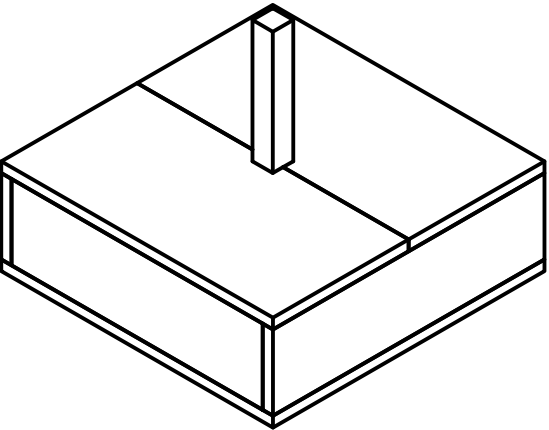
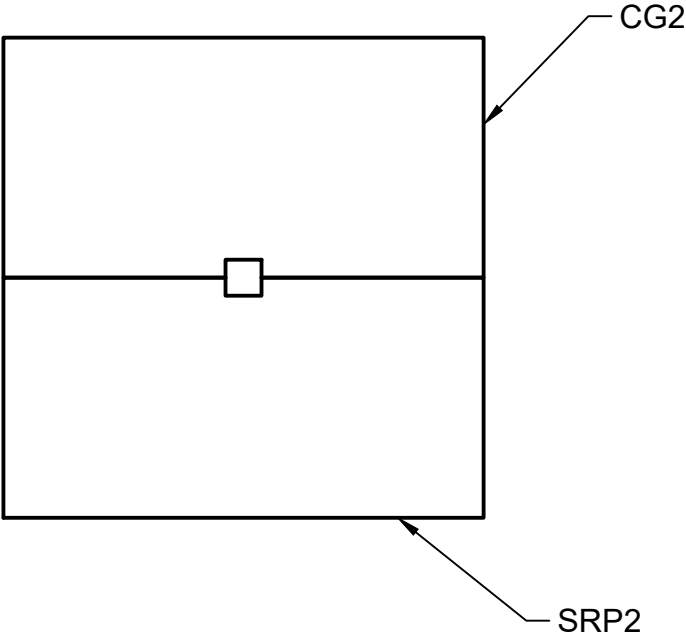
# Autonomous Calf Roping Platform



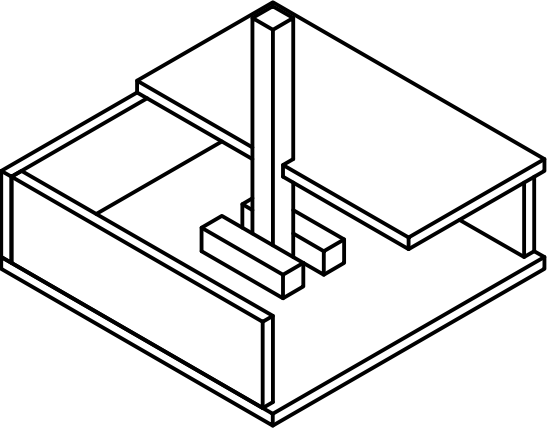
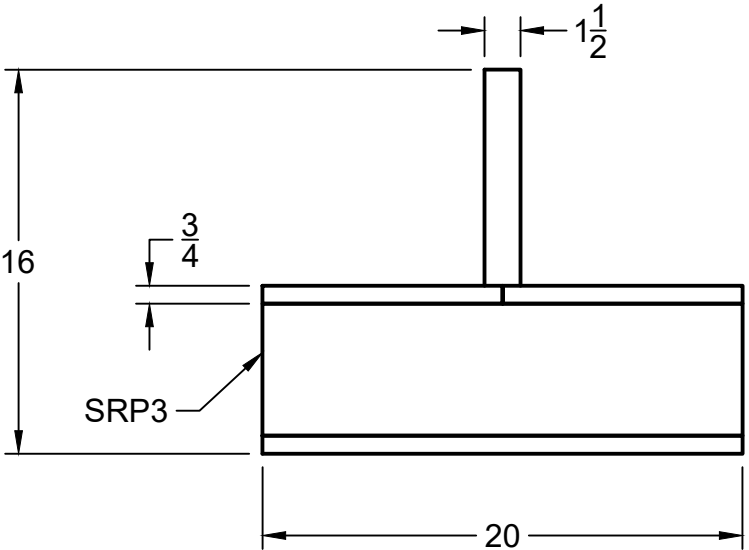
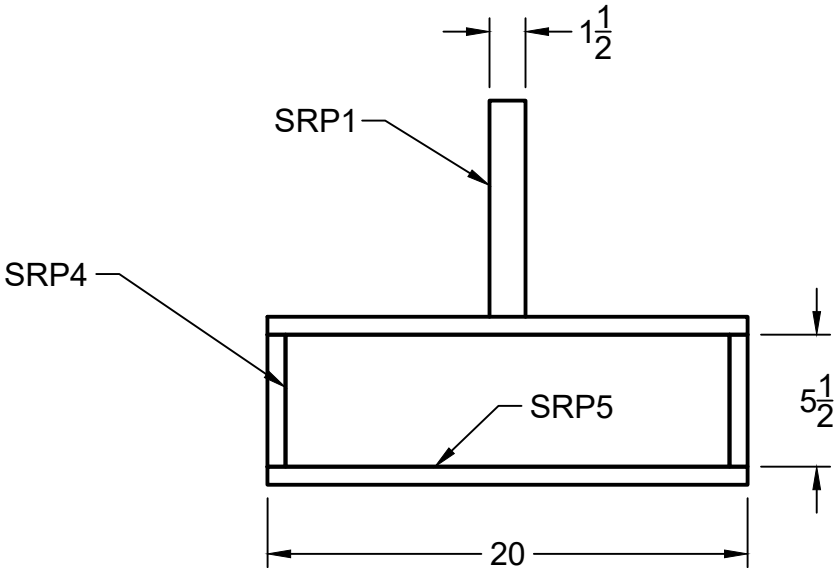
NOTE: The Top Plate is to be glued and screwed to the Side Supports.

| ITEM | QTY | Description                     | SIZE                                      |
|------|-----|---------------------------------|-------------------------------------------|
| CR1  | 2   | Top Plate                       | $\frac{3}{4}$ " X 4" X 21"                |
| CR2  | 8   | Side Supports (Can use 2" x 6") | $1\frac{1}{2}$ " x $5\frac{1}{2}$ " x 12" |
| CR3  | 2   | $\frac{3}{8}$ " Carriage Bolt   | 3"                                        |
| CR4  | 2   | $\frac{3}{8}$ " Lock Nut        | $\frac{3}{8}$ "                           |
| CR5  | 2   | $\frac{3}{8}$ " washer          | $\frac{3}{8}$ "                           |
| CR6  | 2   | 3" Black ABS Pipe               | 1" long                                   |

Steer Roping Platform



NOTE: There could be a lot of pulling force applied to the Steer Roping Post during game play. Ensure the Post is firmly secured to the bottom Plate with screws and built up with pieces of wood (See Drawing Below).



| ITEM | QTY | Description  | SIZE                      |
|------|-----|--------------|---------------------------|
| SRP1 | 2   | Post         | 1 1/2" X 1 1/2" X 15 1/4" |
| SRP2 | 2   | Top Plate    | 3/4" X 10" X 20"          |
| SRP3 | 2   | Sides        | 3/4" X 5 1/2" X 20"       |
| SRP4 | 2   | Ends         | 3/4" X 5 1/2" X 18 1/2"   |
| SRP5 | 1   | Bottom Plate | 3/4" X 20" X 20"          |

Suggested Plywood Layout for Exterior Walls, Interior Walls and Court Elements  
(Sheets 1 - 4)

|                                                                        |
|------------------------------------------------------------------------|
| EW1 ( 5 <sup>1</sup> / <sub>2</sub> X 94 <sup>1</sup> / <sub>2</sub> ) |
| EW1 ( 5 <sup>1</sup> / <sub>2</sub> X 94 <sup>1</sup> / <sub>2</sub> ) |
| EW1 ( 5 <sup>1</sup> / <sub>2</sub> X 94 <sup>1</sup> / <sub>2</sub> ) |
| EW1 ( 5 <sup>1</sup> / <sub>2</sub> X 94 <sup>1</sup> / <sub>2</sub> ) |
| EW2 ( 5 <sup>1</sup> / <sub>2</sub> X 95 <sup>1</sup> / <sub>4</sub> ) |
| EW2 ( 5 <sup>1</sup> / <sub>2</sub> X 95 <sup>1</sup> / <sub>4</sub> ) |
| EW2 ( 5 <sup>1</sup> / <sub>2</sub> X 95 <sup>1</sup> / <sub>4</sub> ) |
| EW2 ( 5 <sup>1</sup> / <sub>2</sub> X 95 <sup>1</sup> / <sub>4</sub> ) |
|                                                                        |

|                                                                        |  |
|------------------------------------------------------------------------|--|
| 6                                                                      |  |
| EW3 ( 5 <sup>1</sup> / <sub>2</sub> X 84)                              |  |
| EW3 ( 5 <sup>1</sup> / <sub>2</sub> X 84)                              |  |
| EW3 ( 5 <sup>1</sup> / <sub>2</sub> X 84)                              |  |
| EW3 ( 5 <sup>1</sup> / <sub>2</sub> X 84)                              |  |
| EW5 ( 5 <sup>1</sup> / <sub>2</sub> X 83 <sup>1</sup> / <sub>4</sub> ) |  |
| EW5 ( 5 <sup>1</sup> / <sub>2</sub> X 83 <sup>1</sup> / <sub>4</sub> ) |  |
| EW5 ( 5 <sup>1</sup> / <sub>2</sub> X 83 <sup>1</sup> / <sub>4</sub> ) |  |
| EW5 ( 5 <sup>1</sup> / <sub>2</sub> X 83 <sup>1</sup> / <sub>4</sub> ) |  |
|                                                                        |  |

|                                                                         |                                             |
|-------------------------------------------------------------------------|---------------------------------------------|
| SWL1 ( 5 <sup>1</sup> / <sub>2</sub> X 77 <sup>1</sup> / <sub>4</sub> ) | CR2 (5 <sup>1</sup> / <sub>2</sub> " x 12") |
| SWL1 ( 5 <sup>1</sup> / <sub>2</sub> X 77 <sup>1</sup> / <sub>4</sub> ) | CR2 (5 <sup>1</sup> / <sub>2</sub> " x 12") |
| SWL2 ( 5 <sup>1</sup> / <sub>2</sub> X 74 <sup>1</sup> / <sub>4</sub> ) | CR2 (5 <sup>1</sup> / <sub>2</sub> " x 12") |
| SWL2 ( 5 <sup>1</sup> / <sub>2</sub> X 74 <sup>1</sup> / <sub>4</sub> ) | CR2 (5 <sup>1</sup> / <sub>2</sub> " x 12") |
| FW ( 5 <sup>1</sup> / <sub>2</sub> X 65 3/4)                            | SRP5 20" x 20"                              |
| FW ( 5 <sup>1</sup> / <sub>2</sub> X 65 3/4)                            |                                             |
| FW ( 5 <sup>1</sup> / <sub>2</sub> X 65 3/4)                            |                                             |
| FW ( 5 <sup>1</sup> / <sub>2</sub> X 65 3/4)                            |                                             |
|                                                                         |                                             |

|                                               |                                |                                               |                                               |                                  |
|-----------------------------------------------|--------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------|
| SWAO ( 5 $\frac{1}{2}$ X 57)                  |                                |                                               | EW4 ( 5 $\frac{1}{2}$ X 24)                   | CR2<br>(5 $\frac{1}{2}$ " x 12") |
| SWAO ( 5 $\frac{1}{2}$ X 57)                  |                                |                                               | EW4 ( 5 $\frac{1}{2}$ X 24)                   | CR2<br>(5 $\frac{1}{2}$ " x 12") |
| SWAO ( 5 $\frac{1}{2}$ X 57)                  |                                |                                               | EW4 ( 5 $\frac{1}{2}$ X 24)                   | CR2<br>(5 $\frac{1}{2}$ " x 12") |
| SWAO ( 5 $\frac{1}{2}$ X 57)                  |                                |                                               | EW4 ( 5 $\frac{1}{2}$ X 24)                   | CR2<br>(5 $\frac{1}{2}$ " x 12") |
| SRP3 (5 $\frac{1}{2}$ " x 20")                | SRP3 (5 $\frac{1}{2}$ " x 20") | SRP4 (5 $\frac{1}{2}$ " x 18 $\frac{1}{2}$ ") | SRP4 (5 $\frac{1}{2}$ " x 18 $\frac{1}{2}$ ") |                                  |
| SRP2 (10" x 20")                              | SRP2 (10" x 20")               | CR1 (4" x 21")                                |                                               |                                  |
|                                               |                                | CR1 (4" x 21")                                |                                               |                                  |
|                                               |                                |                                               |                                               |                                  |
|                                               |                                | AFR1 (2" x 17 $\frac{1}{4}$ ") x 4            |                                               |                                  |
| BFL1 (2" x 12") x 8                           |                                |                                               |                                               |                                  |
|                                               | BFS1 (2" x 8") x 8             |                                               |                                               |                                  |
| All Fence Posts (2" x 2 $\frac{1}{2}$ ") x 20 |                                |                                               |                                               |                                  |

Suggested Plywood Layout for Exterior Walls, Interior Walls and Court Elements  
(Sheet 5)

|                  |               |  |
|------------------|---------------|--|
| BW2 (5½ X 75 ¾)  |               |  |
| BW2 (5½ X 75 ¾)  |               |  |
| BW2 (5½ X 75 ¾)  |               |  |
| BW2 (5½ X 75 ¾)  |               |  |
| BW1 (5½ X 63 ¾ ) | BW3 (5½ X 24) |  |
| BW1 (5½ X 63 ¾ ) | BW3 (5½ X 24) |  |
| BW1 (5½ X 63 ¾ ) |               |  |
| BW1 (5½ X 63 ¾ ) |               |  |
|                  |               |  |

Materials List

| ITEM        | QTY | Description                                 | Link/Size                                                                    |
|-------------|-----|---------------------------------------------|------------------------------------------------------------------------------|
| Bulls       | 32  | 3in Light weight Sponge Pucks               | <a href="https://amzn.to/4huSCuL">https://amzn.to/4huSCuL</a>                |
| Lasso       | 4   | Chew Proof Dog Leash                        | <a href="https://amzn.to/4fgtkPK">https://amzn.to/4fgtkPK</a>                |
| Plywood     | 5   | Court Walls/Game Elements                   | ¾" x 4ft x 8ft                                                               |
| Barrels     | 32  | 3" Black ABS Pipe (5" Long Barrels)         | 3in x 14ft <a href="https://bit.ly/ABSBarrels">https://bit.ly/ABSBarrels</a> |
| Calf Rope   | 2   | 3" Black ABS Pipe (cut from Barrel pieces)  | 1" x 3" <a href="https://bit.ly/ABSBarrels">https://bit.ly/ABSBarrels</a>    |
| Clowns      | 6   | 2" Central Vacuum PVC Pipe (3 ½" Long Body) | 2" x 2ft <a href="https://bit.ly/CVacPipe">https://bit.ly/CVacPipe</a>       |
| Clown Caps  | 12  | 2" Central Vaccum Pipe Cap                  | 2" <a href="https://bit.ly/CVacCap">https://bit.ly/CVacCap</a>               |
| Roping Post | 1   | 2 x 2 Roping Post                           | 1 ½" x 1 ½" x 16"                                                            |
| CR3         | 2   | ¾" Carriage Bolt - Autonomous Calf Roping   | <a href="https://bit.ly/CalfBolt">https://bit.ly/CalfBolt</a>                |
| CR4         | 2   | ¾ Lock Nut - Autonomous Calf Roping         | <a href="https://bit.ly/CalfLockNut">https://bit.ly/CalfLockNut</a>          |
| CR5         | 2   | ¾ washer - Autonomous Calf Roping           | <a href="https://bit.ly/CalfWasher">https://bit.ly/CalfWasher</a>            |