

# CODEAVOUR 7.0

## INTERNATIONAL

### Track 3 - Robo Soccer League

#### Arena Setup Guide



















Score with Skills, Win with Code

# Table of Contents

<b>Component List.....</b>	<b>2</b>
<b>1. Assembly of the Arena Puzzle Base.....</b>	<b>4</b>
Step 1.1: Make space for Arena.....	4
Step 1.2: Assemble the base -1.....	5
Step 1.3: Assemble the base -2.....	5
Step 1.4: Complete the Base.....	7
<b>2. Assembly of Arena MDF Walls.....</b>	<b>8</b>
Step 2.1: Insert the walls - 1.....	8
Step 2.2: Align the correct walls adjacent to each other.....	8
Step 2.3: Insert the walls - 3.....	9
<b>3. Assembly of Support Pieces.....</b>	<b>11</b>
Step 3.1: Insert the Arch Support.....	11
Step 3.2: Insert Goal Arch Connector.....	11
Step 3.3: Assemble the Goal Arch.....	12
Step 3.4: Insert Wall Supports.....	13
Step 3.5: Lock the wall support.....	13
Step 3.6: Lock all Walls and Arch supports.....	14
<b>4. Assembly of O-rings.....</b>	<b>15</b>
Step 4.1: Secure the Joints.....	15
<b>5. Assembly of Arena Roll.....</b>	<b>16</b>
Step 5.1: Time for Glue Tape.....	16
Step 5.2: How to use the double-sided tape.....	17
Step 5.3: Arena Print Assembly.....	18

## Component List

Sr. no.	Item Code	Part name / Sub-assembly Name	Reference Image	Qty/Set
1	T3-RSA-A1	Puzzle Base Corner Sub-assembly 1		2
2	T3-RSA-A2	Puzzle Base Corner Sub-assembly 2		2
3	T3-RSA-A3	Puzzle Base Middle Sub-assembly 1		2
4	T3-RSA-A4	Puzzle Base Middle Sub-assembly 2		2
5	T3-RSA-A5	Puzzle Base Middle Sub-assembly 3		2
6	T3-RSA-14	Puzzle Base Middle		2
7	T3-RSA-15	Wall 1		2
8	T3-RSA-16	Wall 2A		2
9	T3-RSA-17	Wall 2B		2
10	T3-RSA-22	Wall 6		2
11	T3-RSA-25	Goal Arch		4
12	T3-RSA-27	Goal Arch Connector		16

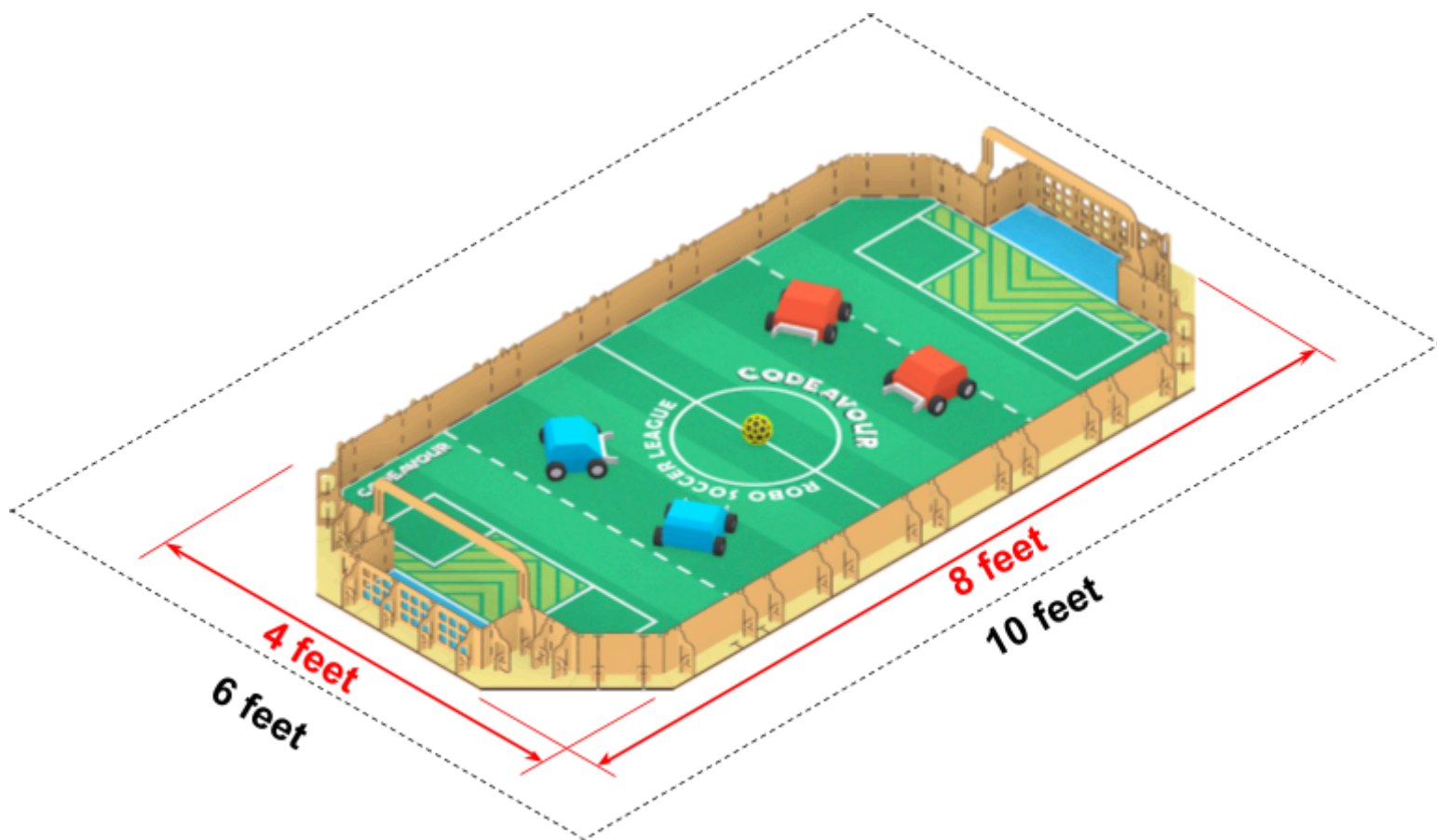
Sr. no.	Item Code	Part name / Sub-assembly Name	Reference Image	Qty/Set
13	T3-RSA-18	Wall 3		4
14	T3-RSA-19	Wall 4A		2
15	T3-RSA-20	Wall 4B		2
16	T3-RSA-21	Wall 5		4
17	T3-RSA-23	Wall Support		70
18	T3-RSA-24	Wall Connector		78
19	T3-RSA-26	Goal Arch Support		8
20	-	Sand Paper		1
21	-	Double-sided Tape		1
22	-	O rings (OD: 12mm, ID: 8mm)		85
23	-	Screws (9mm)		10
24	-	Screw Driver		1
25	-	Mallet		1
26	-	Printed Arena		1

## 1. Assembly of the Arena Puzzle Base

### Step 1.1: Make space for Arena

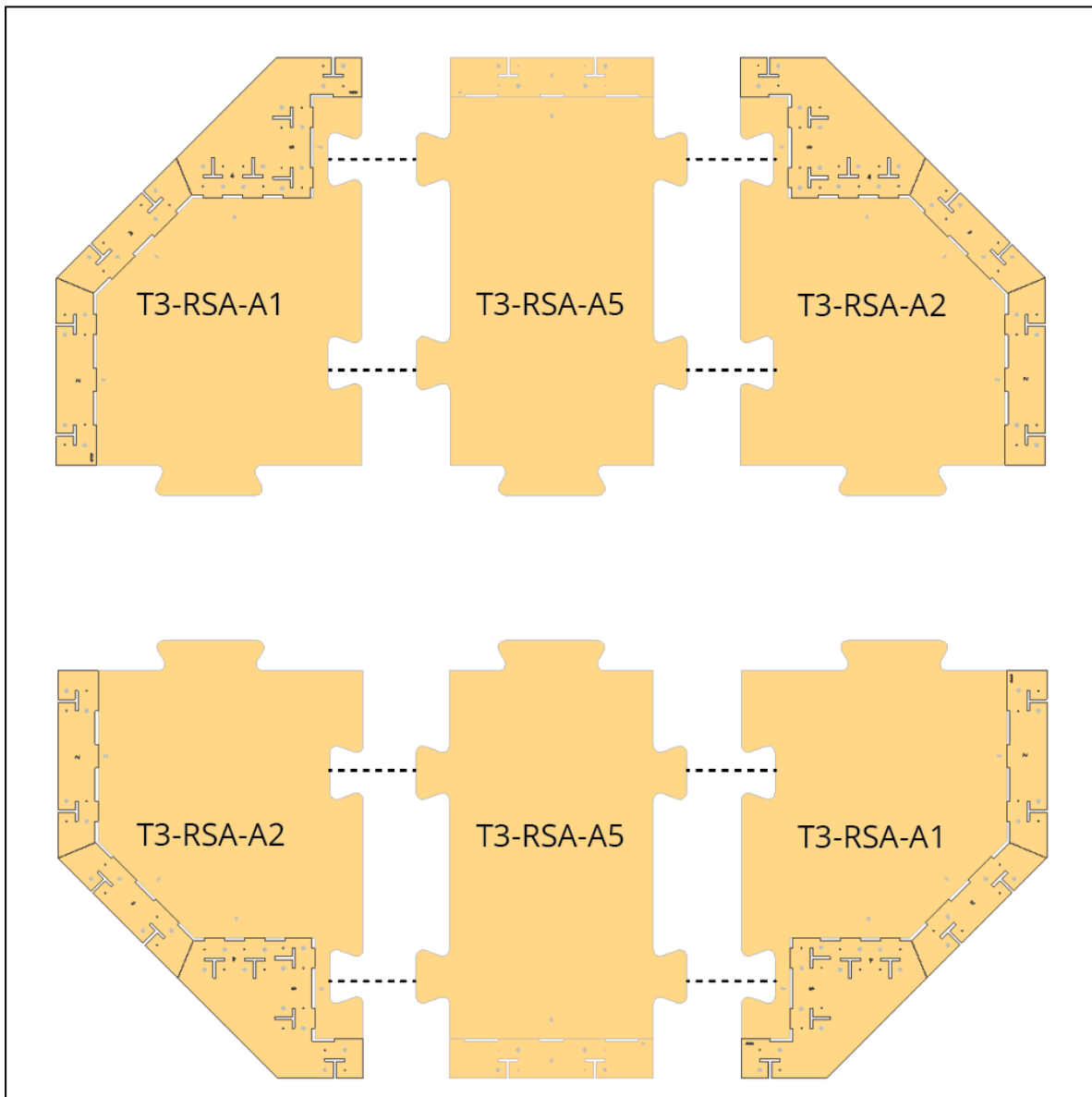
To begin, you will need an even space of at least 6 x 10 feet for the assembly of the puzzle base. This space can be a tabletop or on the ground.

The Robo Soccer Arena measures **4 x 8 feet**, so the space of **6 x 10 feet** provides space around the Arena for players and referees to stand.



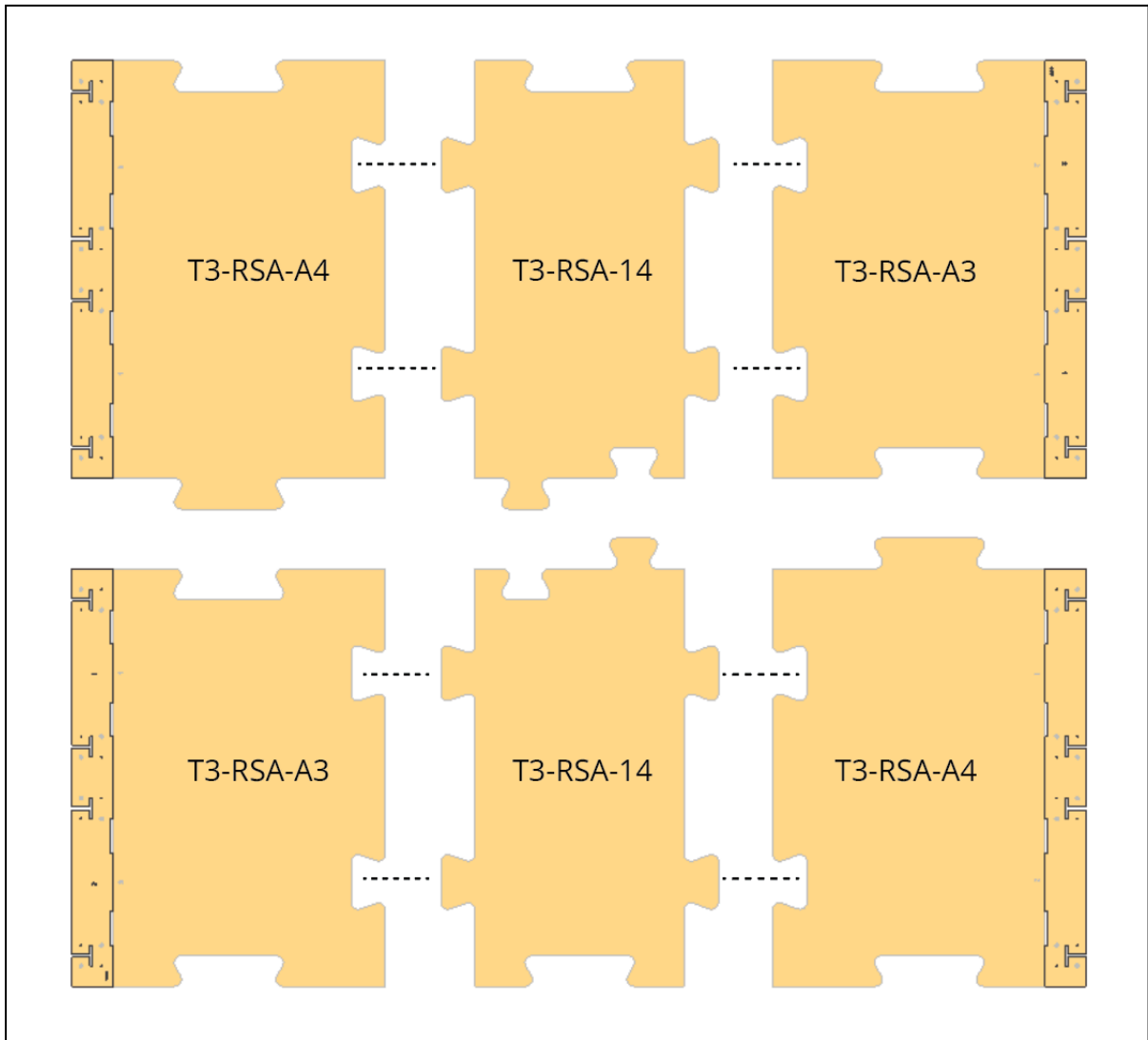
**Step 1.2: Assemble the base -1**

Assemble the parts **T3-RSA-A1 (x1)**, **T3-RSA-A5 (x1)**, and **T3-RSA-A2 (x1)** as shown below, and repeat the process to create another set for the opposite side.



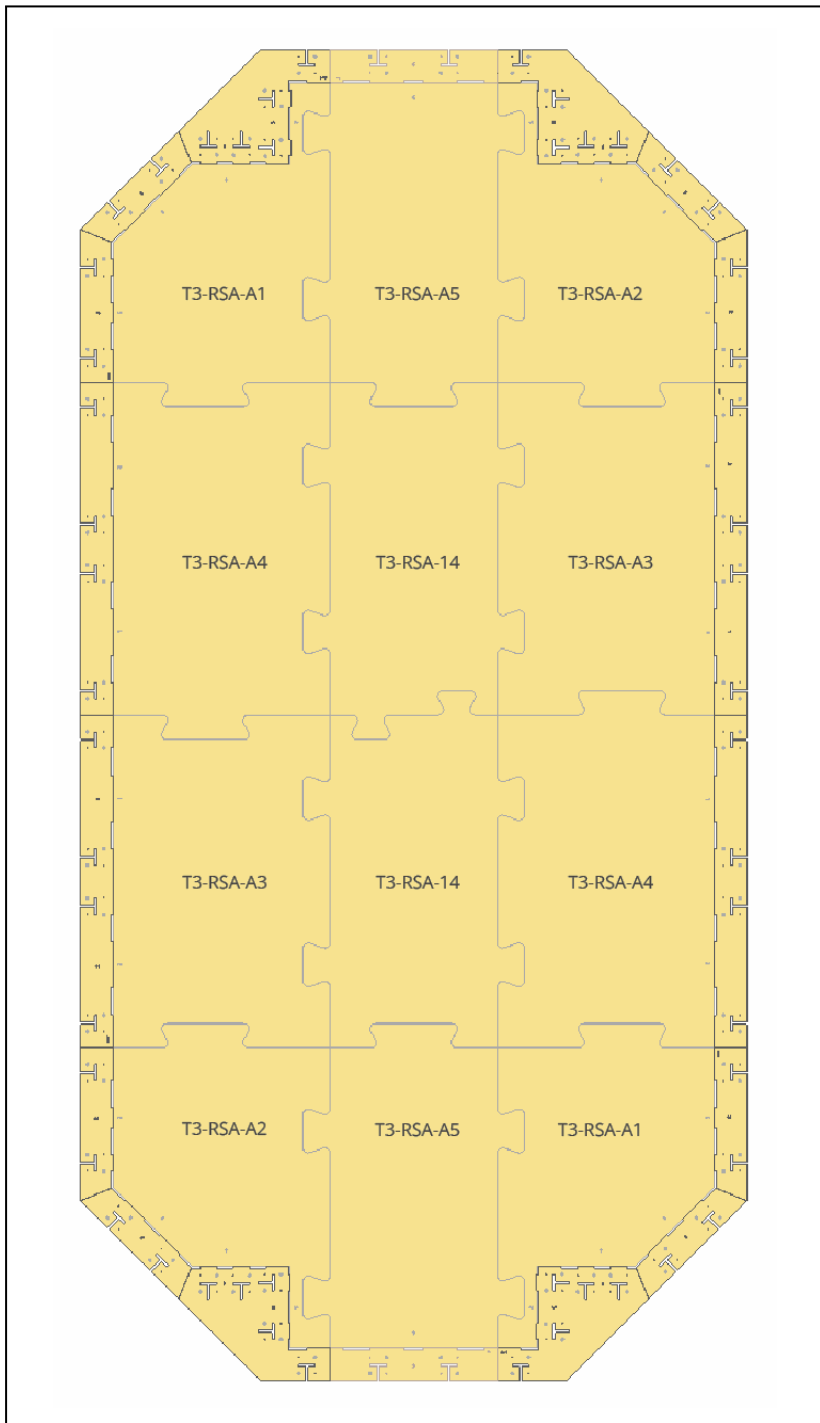
**Step 1.3: Assemble the base -2**

Assemble the parts **T3-RSA-A4 (x1)**, **T3-RSA-14 (x1)**, and **T3-RSA-A3 (x1)** as shown below, and repeat the process to create one more set for the opposite side.



### Step 1.4: Complete the Base

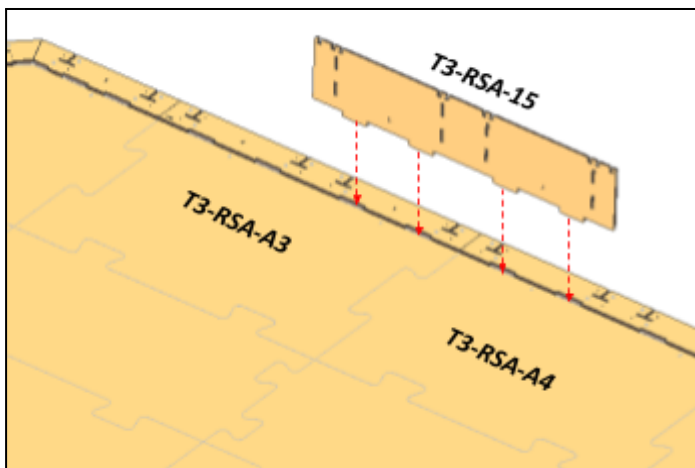
Assemble all the **12 puzzle bases** as shown below, and the base of the Arena is ready.



## 2. Assembly of Arena MDF Walls

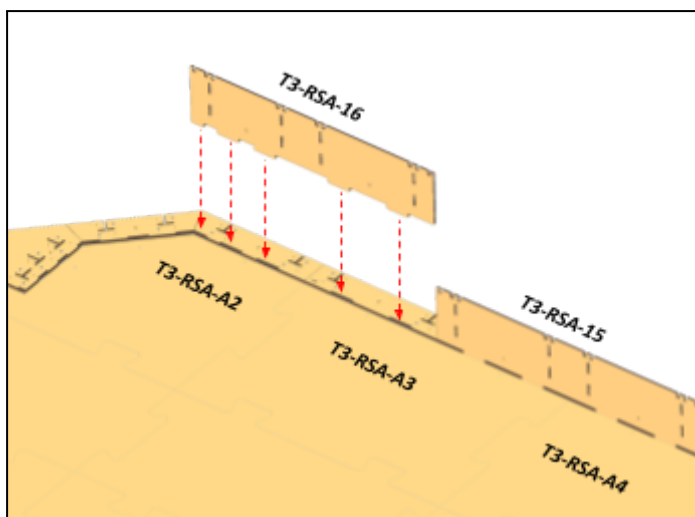
### Step 2.1: Insert the walls - 1

Starting with the **Wall 1 T3-RSA-15 (x1)**, and place it vertically in the middle of the sub-assemblies **T3-RSA-A3** and **T3-RSA-A4**.



### Step 2.2: Align the correct walls adjacent to each other.

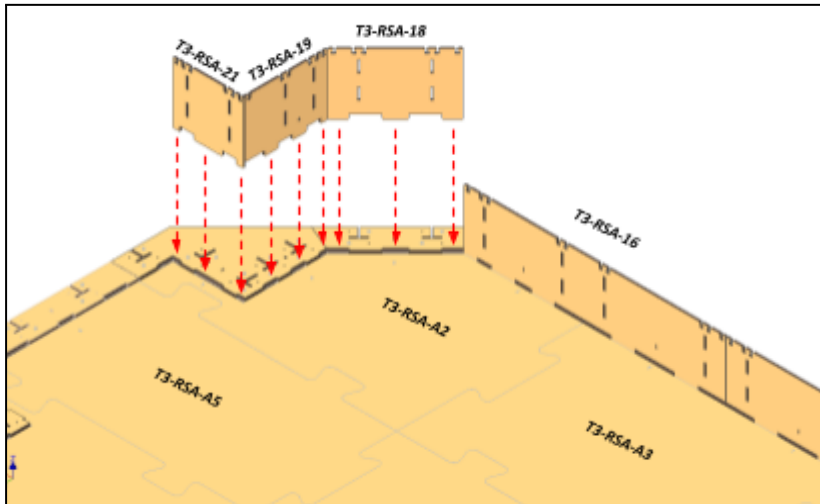
Take the **Wall 2A T3-RSA-16 (x1)**, and place it vertically in the middle of the sub-assemblies **T3-RSA-A2** and **T3-RSA-A3**.



The walls should fit vertically inside the sub-assemblies. If they are tight, **use the mallet**.

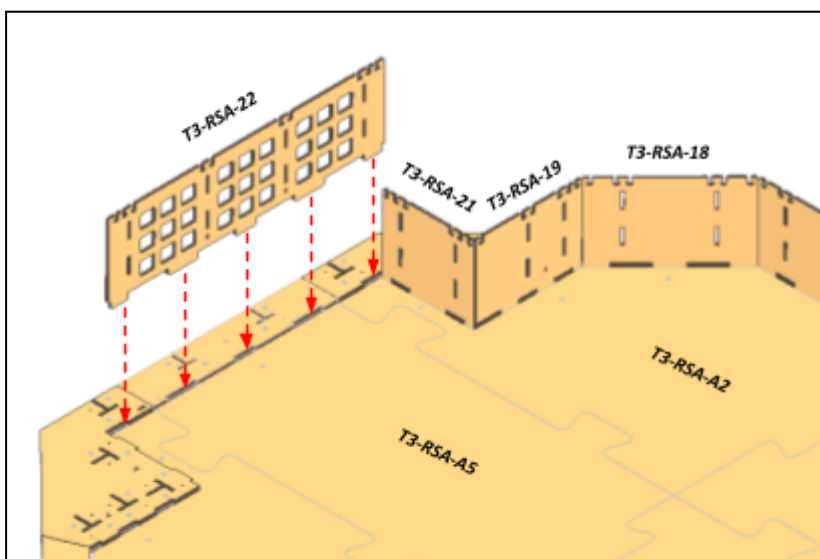
### Step 2.3: Insert the walls - 3

Take the parts **Wall 3 T3-RSA-18 (x1)**, **Wall 4A T3-RSA-19 (x1)**, and **Wall 5 T3-RSA-21 (x1)**, one by one, and insert them vertically on sub-assembly **T3-RSA-A2**.

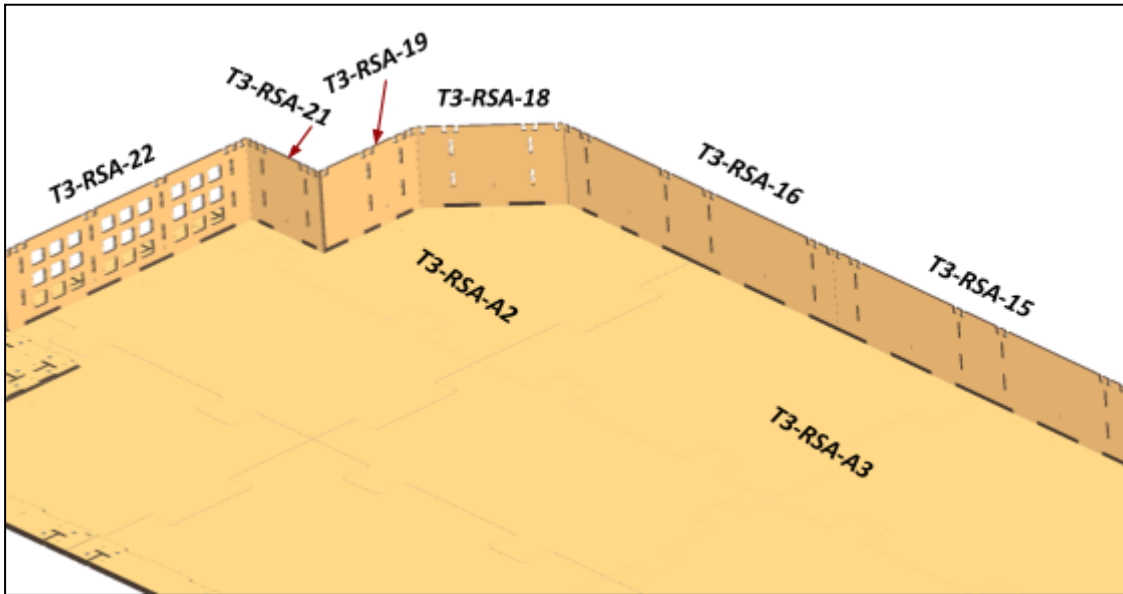


### Step 2.4: Insert The Goal Wall

Take the **Wall 6 T3-RSA-22 (x1)**, and place it vertically in the middle of the sub-assemblies **T3-RSA-A5**, **T3-RSA-A5**, and **T3-RSA-A4**.

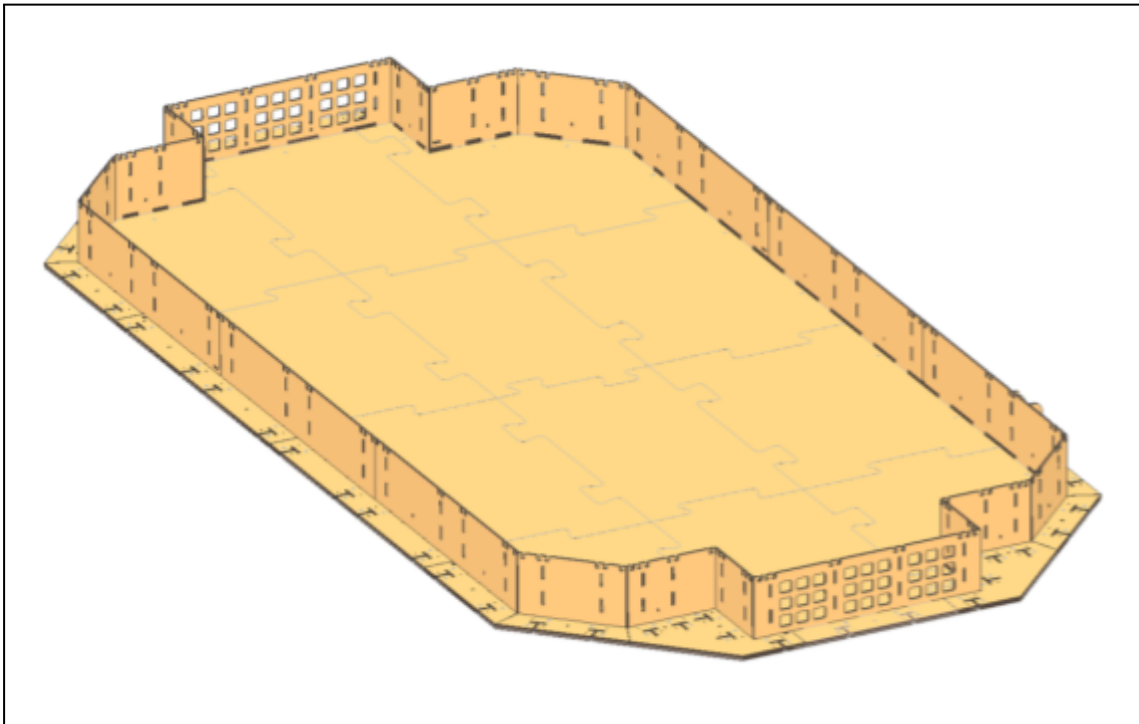


This is how the assembly of 6 walls will look:



### Step 2.5: Repeat to Complete Wall Assembly

Repeat the steps (**Step 2.1** to **Step 2.4**) of wall assemblies for the remaining sides of the Arena. Below is the image of how the assembly will look after all the walls have been assembled.



### 3. Assembly of Support Pieces

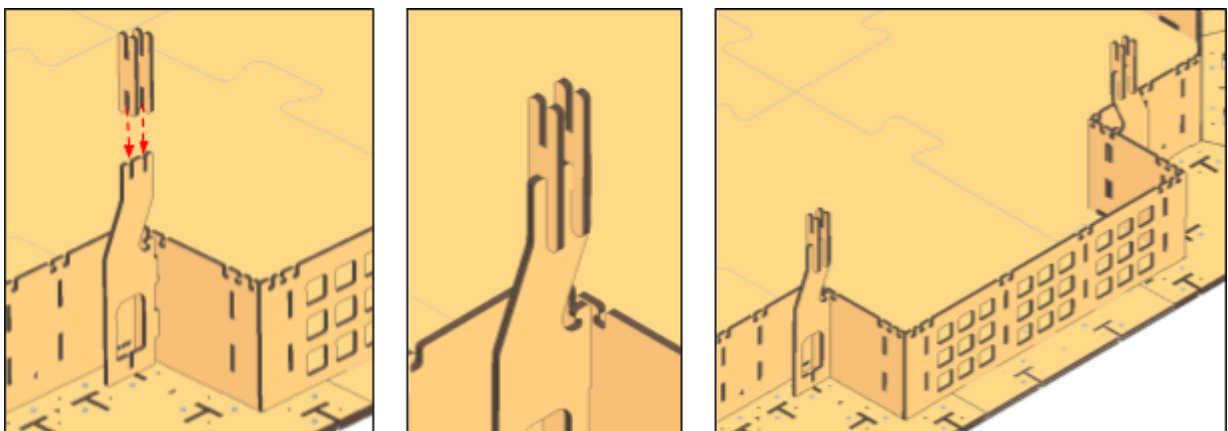
#### Step 3.1: Insert the Arch Support

Take the **Arch Support T3-RSA-26 (x1)** and insert it vertically. Then, slide it horizontally on the outer side of the arena wall, **Wall 5 T3-RSA-21 (x1)**, as shown in the image below. Repeat this process on the opposite side of the same goal post.



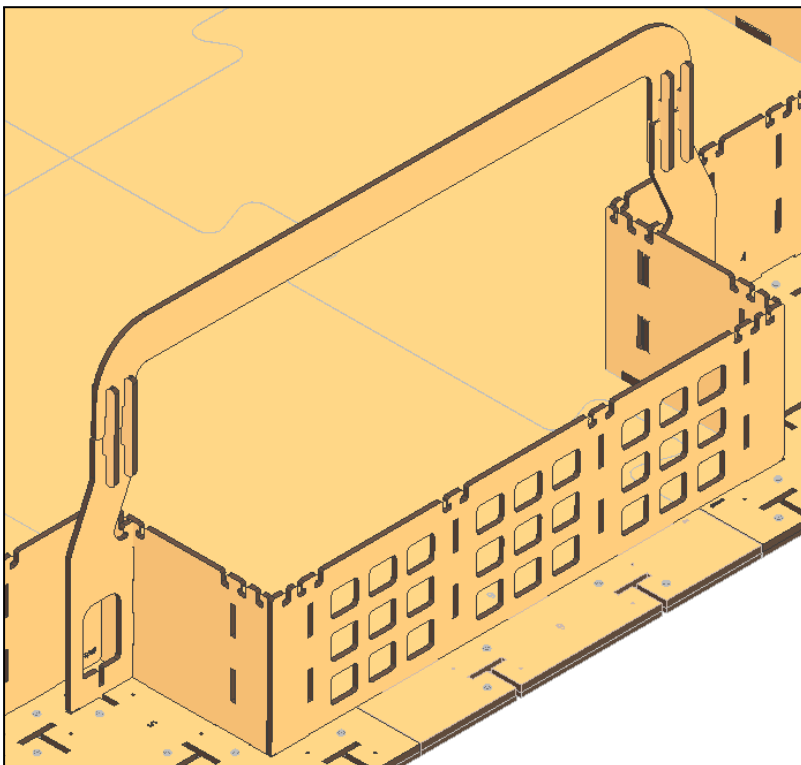
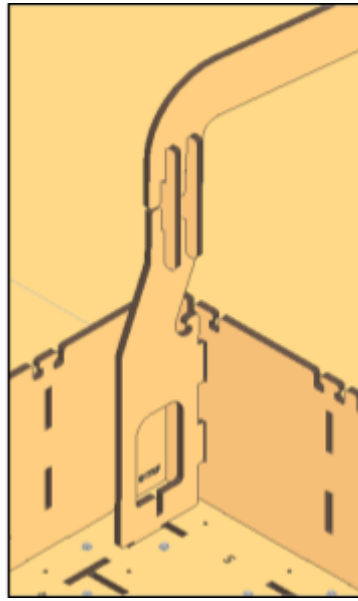
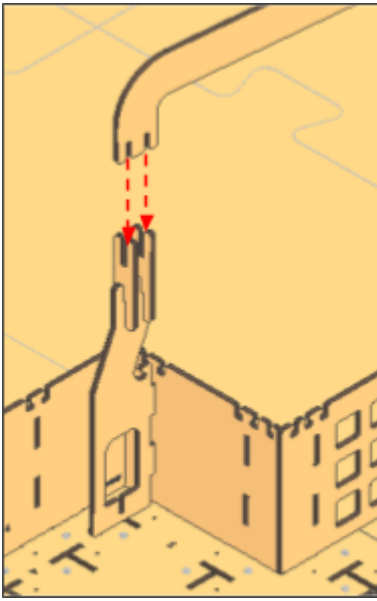
#### Step 3.2: Insert Goal Arch Connector

Take two pieces of the Goal Arch Connector T3-RSA-27 (x2) and insert them vertically on top of the **Arch Support T3-RSA-26 (x1)**. Repeat the same (**Step 3.2**) on the opposite side of the same goal post.



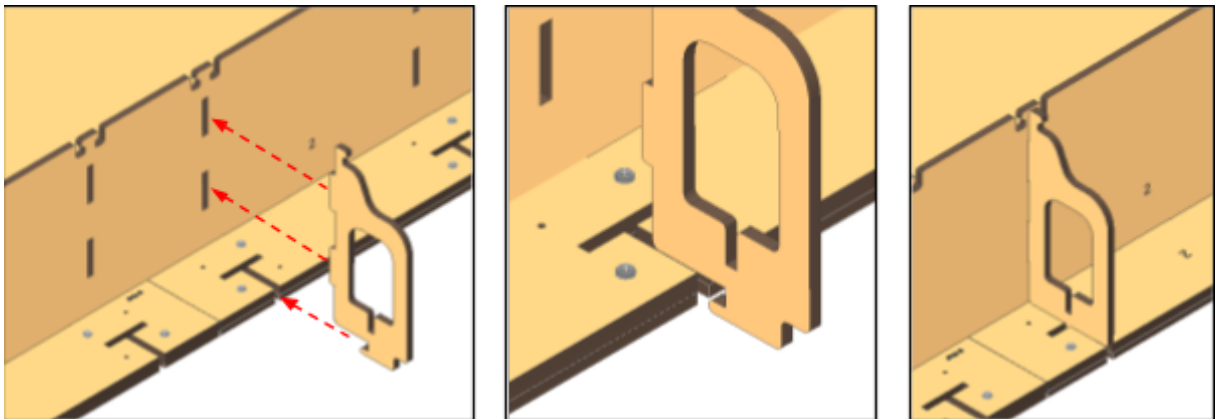
### Step 3.3: Assemble the Goal Arch

Take the **Goal Arch T3-RSA-25 (x1)**, and insert it on the top of the **Arch Support T3-RSA-26 (x2)**.



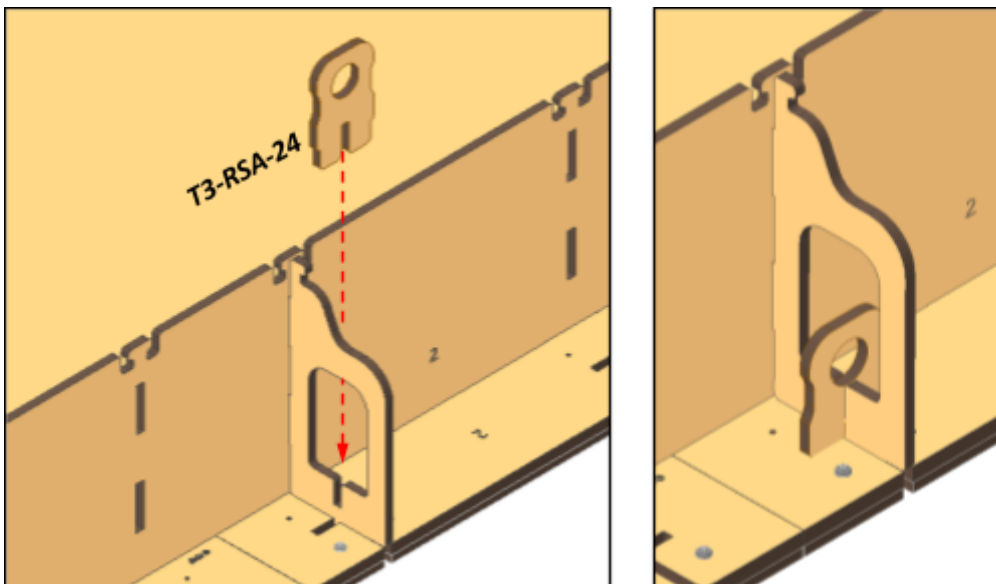
### Step 3.4: Insert Wall Supports

Take the **Wall Support T3-RSA-23 (x1)**, and slide it horizontally on the outer side of the arena walls.



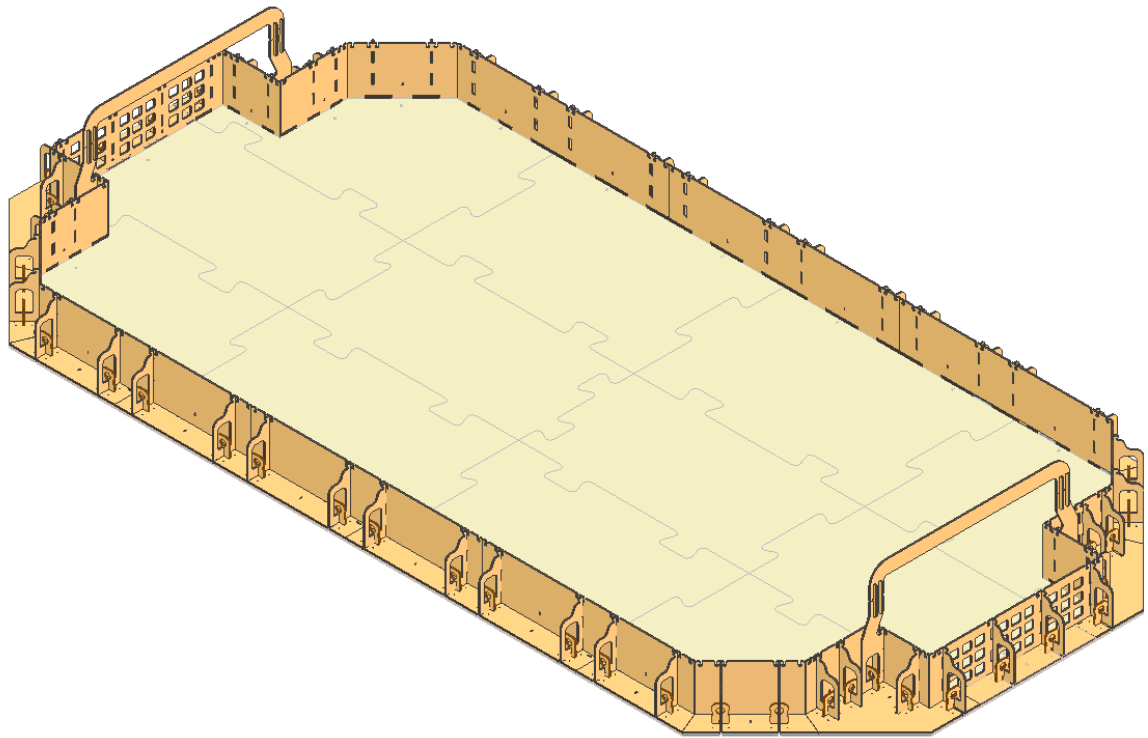
### Step 3.5: Lock the wall support

Take the **Wall Connector T3-RSA-24 (x1)**, and slide it vertically on the outer side of the **Wall Support T3-RSA-23 (x1)** of the arena walls.



### Step 3.6: Lock all Walls and Arch supports.

Assemble all the remaining supports, and this is how the Arena will look.



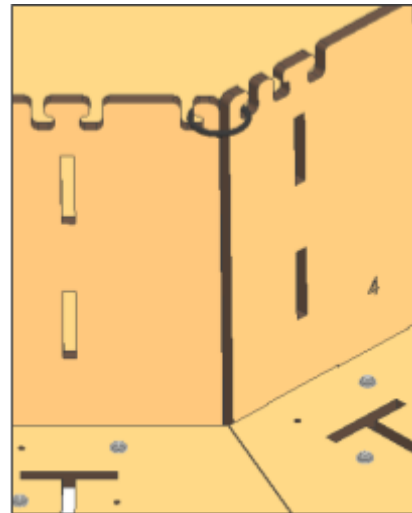
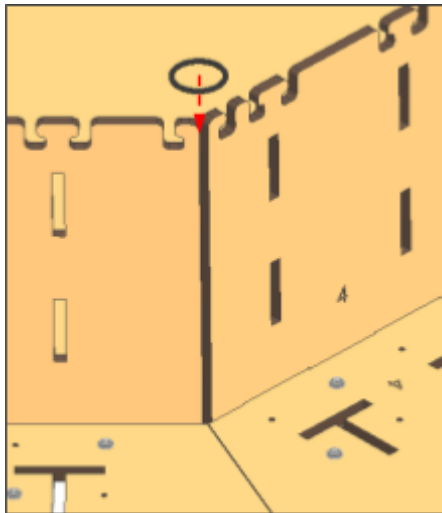
## 4. Assembly of O-rings

After completing the assembly of the supports, we need to join the support pieces and walls using the **O-rings**.

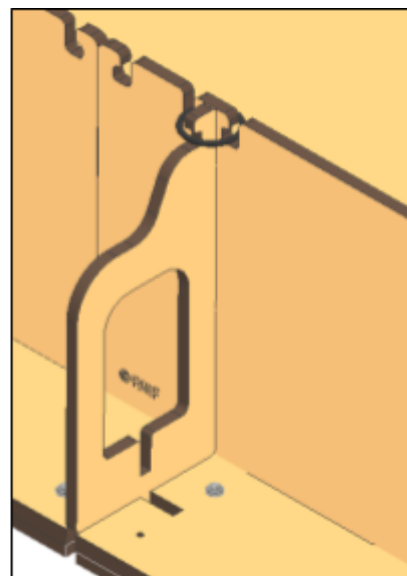
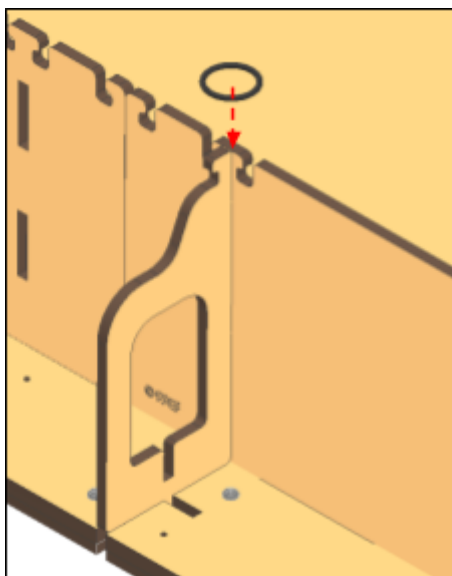
### Step 4.1: Secure the Joints

The **O-rings** will be inserted into two types of places as given below:

#### 1. Connecting 'Wall' to 'Wall':



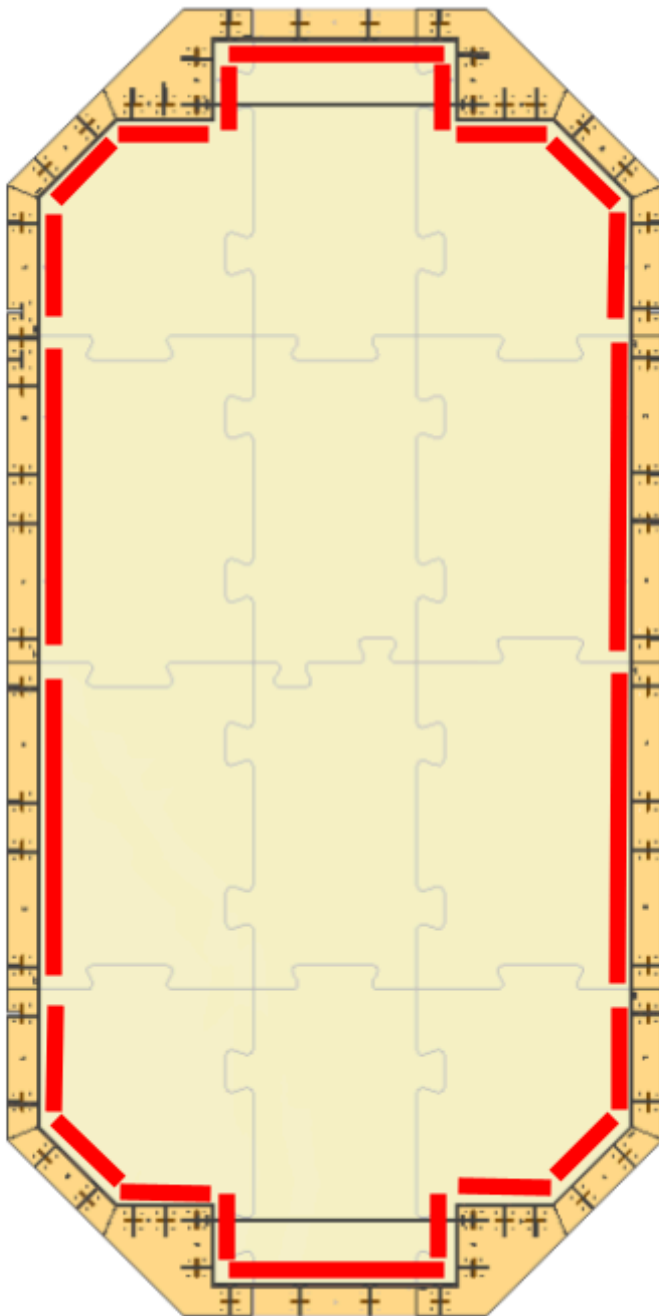
#### 2. Connecting 'Support' to 'Wall':



## 5. Assembly of Arena Roll

### Step 5.1: Time for Glue Tape

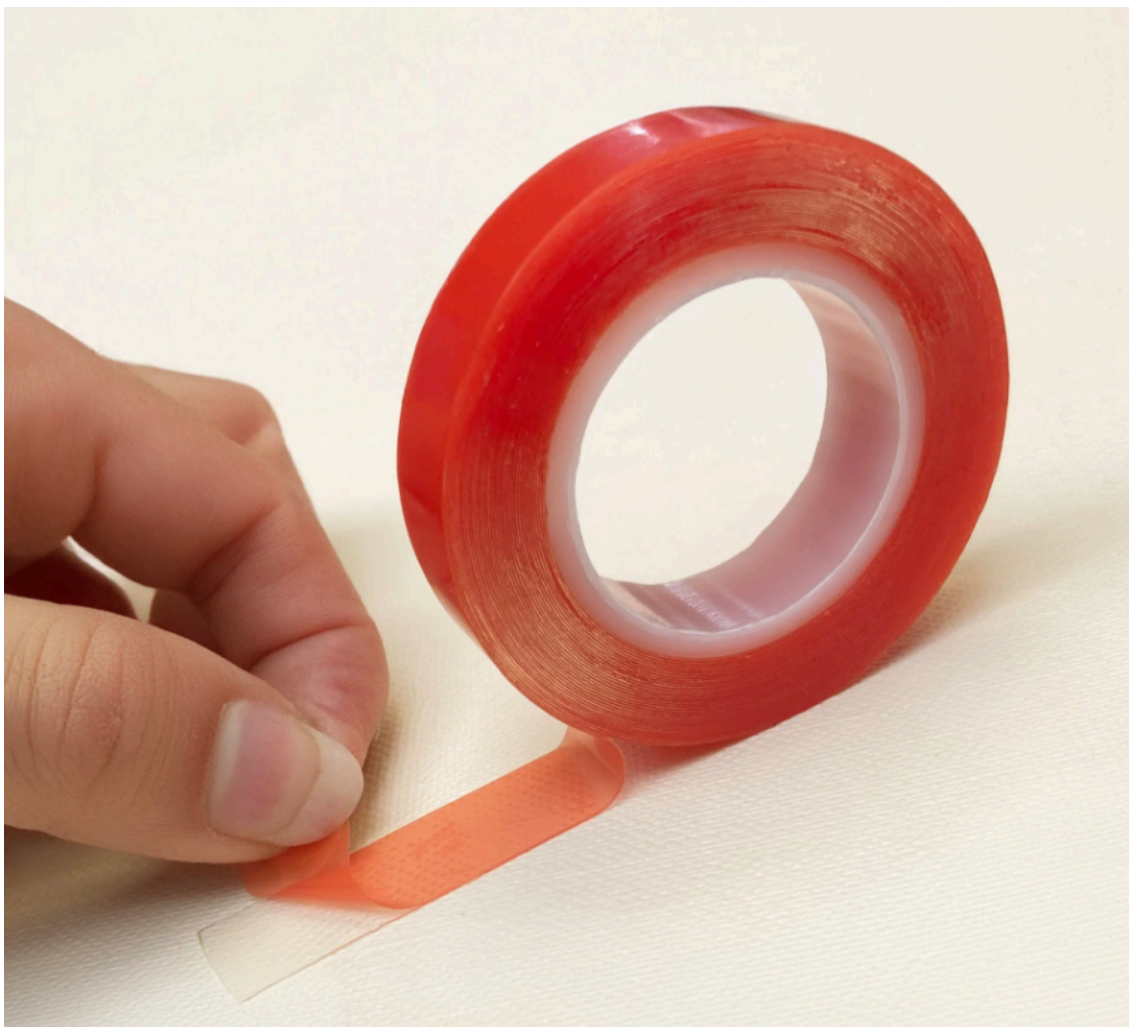
Apply pieces of double-sided tape to the red-highlighted areas on the puzzle base plates of the arena.



### Step 5.2: How to use the double-sided tape

Carefully peel and apply the double-sided tape to the designated areas on the MDF base, as illustrated in **Step 5.1**.

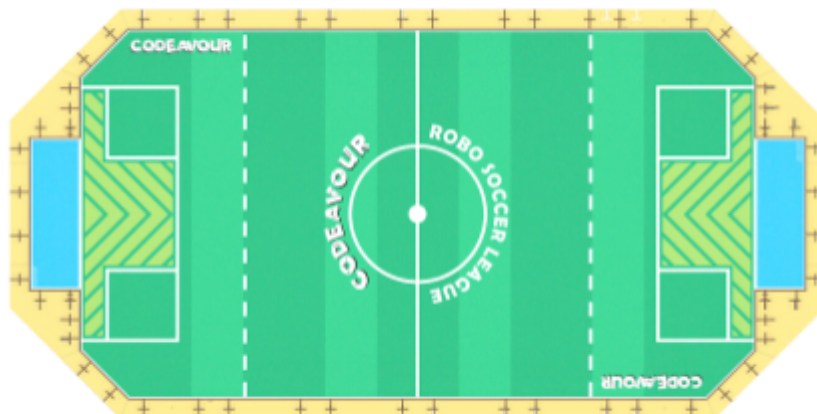
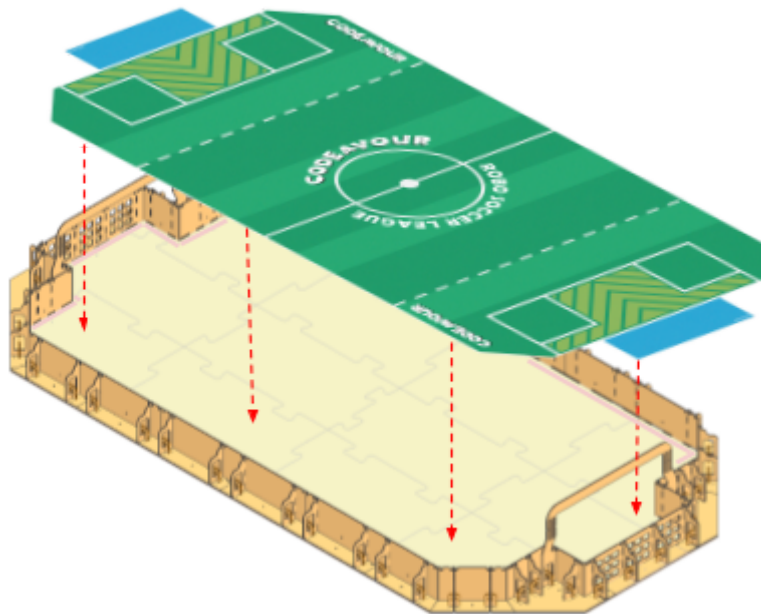
Once all the tape is in place, remove the top red protective layer. The transparent, double-sided adhesive will then secure the printed Arena to the MDF base.



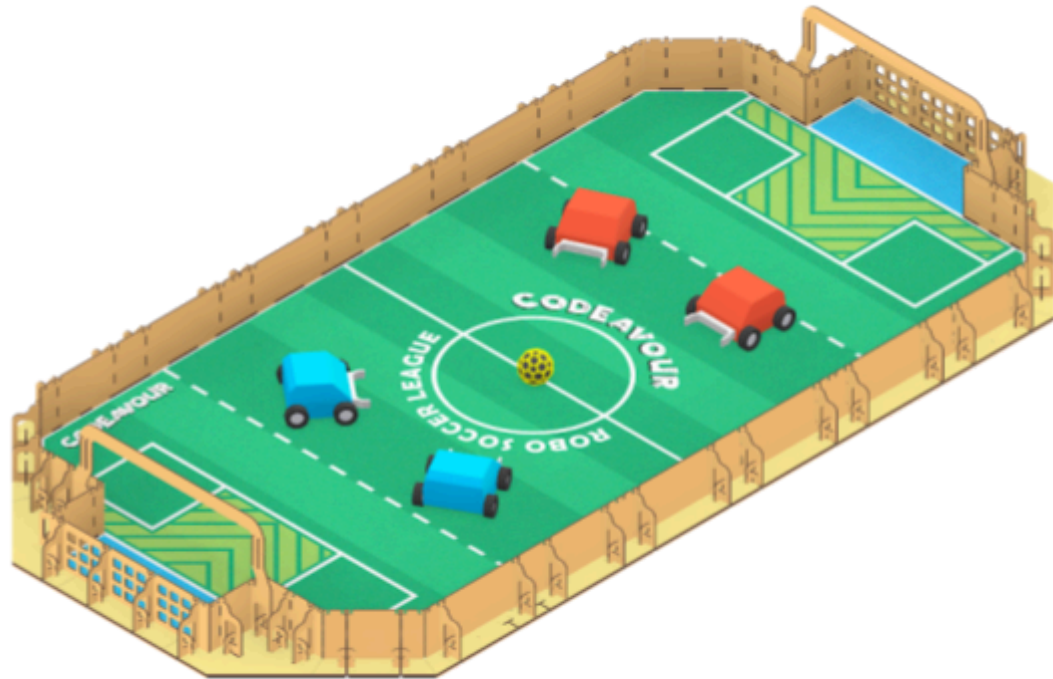
### Step 5.3: Arena Print Assembly

**NOTE:** Make sure the MDF base and printed arena are both clean and free of dust before you paste them.

Peel off the double-sided tape, unroll the **Arena** (Printed Greyback Roll), and carefully paste it on the Arena Base. Remove the **Goal Arch (T3-RSA-25)** if needed for ease of alignment near the Goal post areas.



The Robo Soccer Arena is ready to play!



**Register Now!**

Join thousands of young innovators worldwide  
and be part of Codeavour International!

**CODEAVOUR 7.0**  
**INTERNATIONAL**

[www.codeavour.org](http://www.codeavour.org)