

MozART Frame Setup Guide

The MozART Frame made of from aluminium lengths bolted and screwed together to be self-supporting. The canvas is attached to the frame with bulldog clips and spring clamps. There are 2 pieces of elastic that run vertically on the Kinect side of the canvas to enforce the barriers, these are attached with spring clamps. The frame is designed so when completely dismantled no piece is longer than 2 meters and will fit into most cars. As the frame is already constructed this guide will explain how to dismantle the frame and put it together in the current state it's in. It's not that complicated.

Piece Breakdown

Back Bar (B1, B2)

The back bar runs horizontally along the ground at the back of the frame. Back Bar is separated into 2 pieces, B1 and B2. Back Bar when together will connect RB5 and LB5.

Put Together/Dismantle

1. Lay both pieces on the ground sticker side up.
2. Connect them with connector.
3. Both pieces should have sticker side up and all 3 extruding connectors will be pointed the same way.

Pro Tips:

- Both B1 and B2 should have a few sets of two pencil marks near each other. The pair of pencil lines not crossed out are a rough estimate of where project legs go (assuming you are using the same projector stand as we did).

Back Bar Completed



B1 and B2



Top Horizontal Bar

Top Horizontal Bar (H1, H2)

The Top Horizontal Bar (THB) is exactly what it is. It runs horizontally along the top of the frame front side of the frame. THB connects RB1 and LB1

Put Together/Dismantle:

1. The L angle of aluminium should be screwed onto the aluminium tubing already.
2. For complete dismantle remove all screws EXCEPT IF SCREW MARKED WITH NEVER REMOVE connecting L angle to tube. For simple dismantle only remove blue marked screws.
3. Once at least blue screws are removed, simply pull frame apart at connector.

Pro Tips:

- Don't remove the L pieces. (unless you need to transport it and L frame is stopping you somehow)
- Don't remove the connectors at the end of the piece.



Bottom Horizontal Bar

Bottom Horizontal Bar (H3, H4)

Bottom Horizontal Bar (BHB) runs horizontally across the front of the frame with a 0.5m clearance from the ground. BHB will connect to RB3 and LB3.

Put Together/Dismantle:

1. The L angle of aluminium should also be screwed onto the aluminium tubing already.
2. For complete dismantle remove all screws EXCEPT IF SCREW MARKED WITH NEVER REMOVE connecting L angle to tube. For simple dismantle only remove blue marked screws.
3. Remove All bolts holding Black and White Bracket and take brackets off.
4. Once at least blue screws are removed, simply pull frame apart at the connector.

Pro Tip:

- If you don't want to dismantle everything all the time. Leave the black and white brackets bolted together.
- Don't Remove the L pieces (unless you need to transport it and L frame is stopping you somehow)



Vertical Side Supports (LB1, LB2, LB3, LB4, LB5, RB1, RB2, RB3, RB4, RB5)

The frame has two almost identical side supports that will connect to all of the horizontal pieces. The Vertical Side Supports (VSS) are each made up of 5 distinct pieces. These pieces are not individual, all the LB pieces must go together and all the RB pieces must go together or else the frame will not assemble properly.

The following instructions will refer to LB pieces, note that RB pieces will follow the same instructions.

Put Together/Dismantle:

1. First step is to remove LB4 from the VSS. DO NOT REMOVE THE BLUE MARKED BOLTS ON LB4. Remove the bolts attached to LB1 and LB5 instead.
2. Once bolts are removed, pull LB4 away from VSS.
3. Disconnect LB1 and LB2 from the LB3 connector. Do the same for LB2 and LB5. NOTE: The connector will be attached to LB5 with a screw, do not remove this or any other connector screwed anywhere.
4. When properly assembled; LB1, LB2, LB3 stickers should be on the side facing LB4. LB5 sticker should be face up from the ground.

Pro Tip:

- LB/RB4 only have 1 orientation, they will only align with the bolt holes one way. You should be able to tell based on the how the brackets are cut. If LB/RB4 holes are not aligning DO NOT FORCE IT, make sure you aren't using the other sides B4 and try a different orientation.
- LB/RB1, LB/RB2 and LB/RB3 stickers must all be facing the back of the frame.

Vertical Side Support Side View



Vertical Side Support Back View



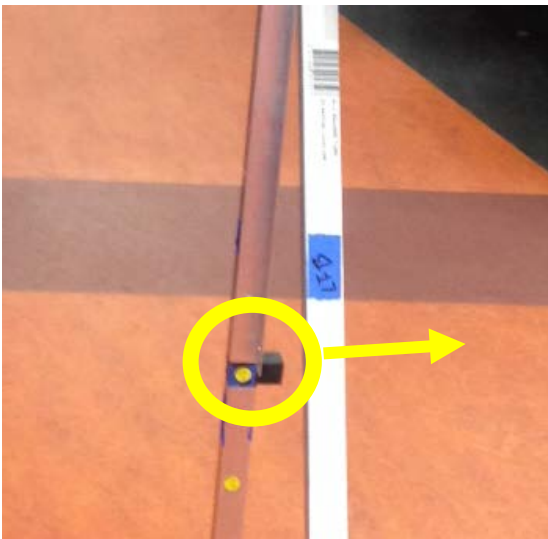
Putting All the Pieces Together

Once you have all the individual sections I talked about assembled you just need to start plugging them in and bolting things.

1: Connect VSS and Back Bar

1.1: Get both VSS pieces together and put them approximately 2.5m apart, if you have someone helping have them support one piece while you support the other. Note: The VSS pieces have set sides, to tell which is which the LB/RB3 extrusions should be pointing at each other. Also the L angle pointing out should be on the side of the frame, as seen from the back.

LEFT Vertical Side Support



This VSS is the LEFT side because LB3 extrusion points inwards, the right VSS will do the same.

Pro Tip:

If you are setting up alone, plug Back Bar into of one the VSS. Then walk on Back Bar and move alone to the other side that is not connected. Keeping your weight on Back Bar will stop the first VSS from falling over. Plug in the other VSS and they should be able to stand freely.

1.2: Plug Back Bar connectors into LB5 and RB5.

2: Connect THB to VSS

2.1: THB will connect to the top of RB1 and LB1. THB needs to be fit a specific way, the picture below show.

VSS and THB connected



You can see the L piece on THB is facing the back of the frame and is extruding on the bottom of THB. THIS IS INTENTIONAL. This goes for all pieces. THE EXTRUSION OF THE L PIECES MUST FACE THE BACK OF THE FRAME AND BE ON THE INSIDE OF THE RECTANGLE FORMED FOR THE CANVAS.

Pro Tip:

When dismantling, remove the connectors from LB1 and RB1 not THB. Sometimes it will take a bit of a hit on upwards, on the bottom side of THB just next to the ends to hit the connectors out of LB1 and RB1.

2.2: Push each side of the connectors on THB down into the top of LB1 and RB1.

3: Connect BHB to LB3 and RB3

3.1: Make sure you have BHB aligned properly, the L extrusion facing backwards and on the top side of BHB, so the opposite to THB. (all L extrusions are on the inside of the rectangle made for the canvas)

3.2: Bolt the Black and White Brackets to BHB. The white brackets should be on the top side and the black on the bottom. Both Brackets attached to either end of BHB share a bolt.



Right (From Back) VSS

3.3: As seen in the picture just above, push each end of BHB into LB3 and RB3.

3.4: Put bolts through the white and black bracket holes aligned with LB/RB1 and LB/RB2 and do up the bolts. Note: There should be 2 holes going from each bracket to each LB/RB piece. One located close to the right angle of the bracket and the other located at the end of the bracket.

Pro Tip:

- When dismantling, NEVER TAKE OFF THE BOLTS ATTACHING THE BRACKETS TO BHB. This will make everything super annoying, just remove the bolts attaching the brackets to VSS and pull BHB away from each VSS.

4: Attach the Canvas

The spandex canvas will be attached to frame with a mix of spring clips and bull dog clips.

4.1: Make Sure the Frame is set up properly. There should be a rectangle made out of the THB, BHB and LB/RB1 as seen below, marked in the yellow

Frame Set Up Without Canvas

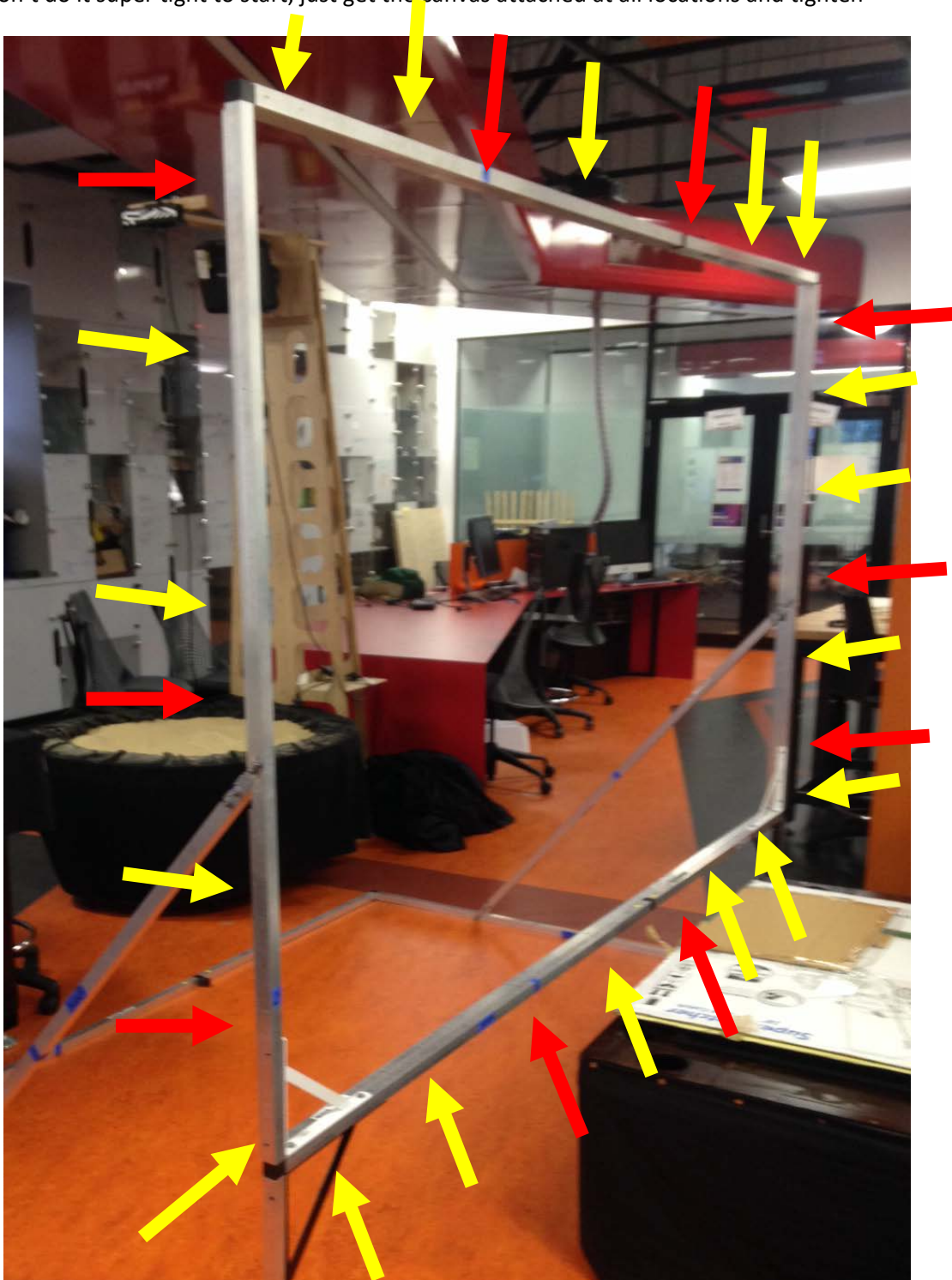


4.2: Get out the canvas and make sure it isn't dirty. There should be 2 sides to the canvas, one being slightly shiny than the other. The shiny side should face towards the audience.

4.3: Below in the picture is the approximate area you should need to attach the canvas to the frame. The yellow arrows are bull dog clips and the red arrows are spring clamps. Pull the canvas over the front of the frame and around to the L aluminium. Attach the canvas to the L extrusion with the clamp/clip.

Pro Tip:

- It's best to attach one side first, then stretch the canvas to the other side and attach it.
- The spandex is meant to be stretched, it may feel like it's not going to reach but it will.
- Don't do it super tight to start, just get the canvas attached at all locations and tighten



4.4: Next is to put on the elastic bracers. There are 2 elastic bracers to enforce the zones, they are attached to the same way as the spandex. They are attached to THB and BHB at 1/3 of the length and 2/3 of the length to make 3 identically sized zones. There should be pencil markings on the back side of THB and BHB showing where the elastic should be attached.

You can see on the picture above there are two red arrows on each BHB and THB. These are the spring clamps that will attach the elastic. NOTE: You should put the Spandex INSIDE the Canvas so the canvas is over the top of the elastic from the audience side but still over the frame.

The clamp will attach both the spandex and elastic. YOU WILL NEED TO MAKE THE ELASTIC REALLY TIGHT, REALLY REALLY TIGHT. YOU SHOULD HAVE AT LEAST 50CM OF LEFTOVER LOOSE ELASTIC AFTER PULLING IT TIGHT.

4.5: The final test is to tighten everything. I cannot tell you exactly what to do, only give you my best advice because we can't really measure tightness of the canvas and it will loosen over time.

Tips:

1. The tightness of the canvas will be directly related to your depth threshold. Try and get a threshold set then tighten the canvas to match that threshold. Just by doing a regular press of the canvas you should push it approximately 10cm deep. A heavy push should be approximately 20cm deep.
2. You shouldn't be able to push the elastic more than 5cm deep.
3. Tighten the sides of the canvas first then the top and bottom. Be especially careful of tightening the top as you don't want the extra canvas flapping down and interrupting the projection.
4. The canvas will need to be washed after every 5 or so set ups. This will make it tight again, make sure you wash it according to proper spandex wash rules.
5. Finally,

The frame will bow inwards. It will not break

This is especially true for the THB as the elastic will pull down right next to the connector. It will bow a lot but it will not break and will work fine.

5: Weigh Down the Canvas

The frame is very light and because people are pushing hard against the canvas they will push the whole frame back which is very bad because the projector/Kinect need to remain at the same depth. You will need minimum **7 kilos** of weight on each VSS.

This weight can be located anywhere along LB/RB5 but we have found it is best placed half on the connection of LB/RB5 and Back Bar and the other half at the front of LB/RB5 where they connect with LB/RB2.

More weight is better but 7kg on each side should just cut it.

Tada, you now set up the MozART Frame. I spend ages making this god damn frame so if you break it I will put a curse on you and your family, ye be warned.