

ISportsWall

Installation Guidelines



Amazing Interactives Ltd.

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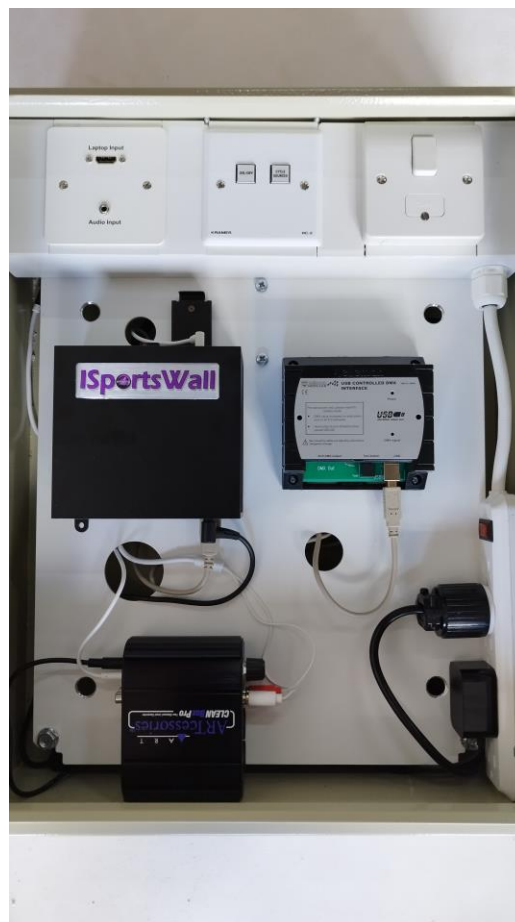
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Kit contents

7200 lumen projector and case



Projector control cabinet



CP1 Pole mount and pole



Cables



Wireless full size keyboard with synoptic trackpad and left mouse button on the top left.



Lidar tracking unit and power supply



Powered 15" Speakers



Speaker brackets



All-In-One LED Par Bar System, 4x30W Tri Colour COB LEDs - EQLED66 - GIGABAR MKII



Anti-bacteria coated foam Balls. The kit comes with 8 x 4 colour foam balls to match the team colours within the games. These balls are 160mm in diameter. Foam balls should always be used for the best tracking.



Wall suitability

The projection wall can be any surface or colour, brick, concrete block and plaster will work but ideally a lighter colour would improve the projection image.

Equipment Layout/Position/Installation

Projector location

The largest image the system can handle is 6m(20ft) wide by 3.75m(12.3ft). The supplied Panasonic PT-VMZ71 has a throw ratio of 1.1 to 1.77 to 1. For a 6m(20ft) image width this gives a location of the front of the projector from 6.6m(21.7ft) to 10.62m(34.8ft) from the wall. However if the projector is to be mounted well above the top of the image we would not recommend the minimum distance as keystone will be required to square up the image and will reduce the image size. To take this in to account we would recommend mounting at 8m(26.2ft) or greater.

Mounting the projector

First mount the CP1(polemount) to the truss or ceiling slab. See example below where the CP1 has been mounted to Unistrut. Then cut the pole to the required length and drill out a hole to take the safety bolt on the projector cases universal joint.



Make sure when you mark the position for the hole for the safety bolt you don't position the bottom of the pole below the top of the cut out, see image below.



Make sure the pole doesn't go below the top of this cut out so you can still feed the cables down the pole.

Also make sure the safety bolt is installed and the Allen key screws are tightened on the CP1 at the top of the pole before fitting the projector to the bottom of the pole. If feeding the cables down the pole don't fit the projector until they have been fed as it will be too difficult to feed them afterwards. The top safety bolt can be removed when feeding the cables as long as the Allen key screws are tight.

Fitting the control cabinet

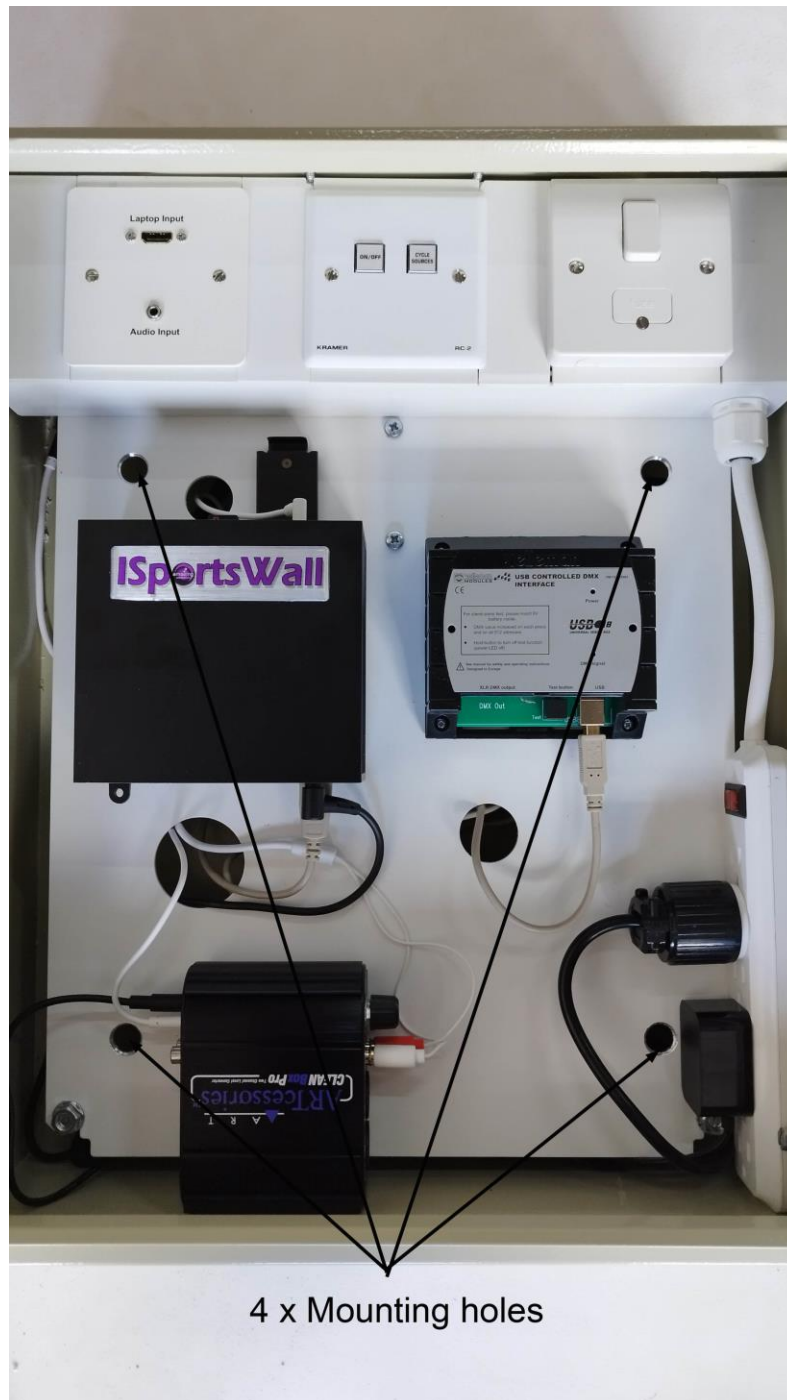
The control cabinet would normally be fitted to the left or right of the projection image. We would not recommend more than 8m(26.2ft) from either side of the image due to the distance the wireless keyboard that controls the system can reach.

To install the cabinet we recommend first removing the top plate, see image below.



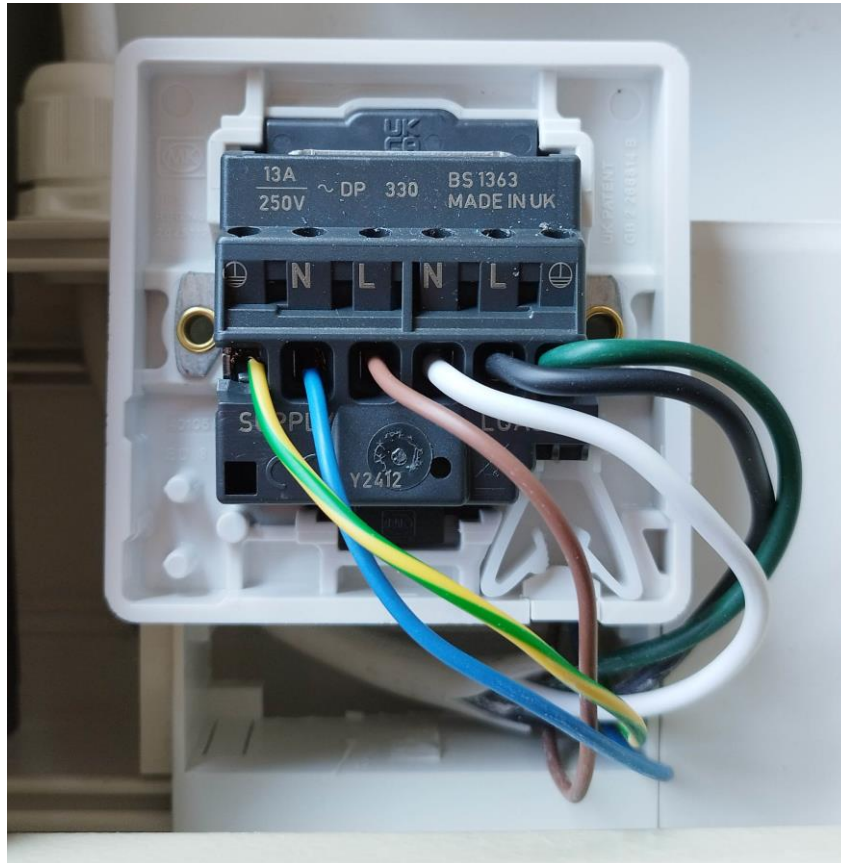
This will allow cables to access the cabinet through suitable trunking, The plate can then be cut and refitted to fit around the trunking. We would recommend two compartment trunking that can take power on one side and the 2 HDMI cables, projector control cable and Ethernet cable that runs to the Lidar unit.

To mount the unit we would recommend the top of the unit be mounted no higher than 1.67m(5.5ft). Use the 4 mounting holes for the cabinet (see below) and suitable fixings for the wall substrate.



Power cabling

Power must be supplied to the right hand power switch in the top right of the cabinet. Remove the switch using the 2 screws each side of the switch. Note the switch is already wired into the power supply for the projector controller and the 4 ways socket extension on the right hand side. The supply must be wired in to the supply side of the switch, Live to Live, Neutral to Neutral and Earth to Earth. The single feed to the projector, lighting, Lidar and 2 speaker power sockets will then be wired into the load side of the switch, see image on next page.



Once the supply and load have been wired in screw the switch back to the trunking using the 2 screws.

Audio Installation

The 2 speakers can be mounted in any location but we would recommend anywhere either side of the image and mounted high up to reduce hits from other sports that could take place in a hall. Each speaker will require a power socket that is fed from the power switch in the cabinet so the speakers can be switched along with the Lidar and projector power sockets. First mount the speaker brackets using suitable fixings for the wall substrate. The speakers can then be placed on the poles and the screw on the bottom of the speakers can be tightened up to hold the speakers in place. We would also recommend using a wire strop as a safety wire that is attached to the speaker bracket and the speaker handle. Once the speakers are mounted they need the power supply and XLR cables from the control cabinet plugged in. The two XLR cables will be plugged into the audio control unit within the cabinet. We have supplied various lengths, a 6m(20ft)+5m(16.4ft) extension for the left hand speaker and a 20m(65ft) for the right hand speaker. The female end of the XLR cable for the left hand speaker must be plugged in to the BALANCED OUTPUT 1 of the audio controller located in the bottom left of the cabinet and the right hand XLR cable to BALANCED OUTPUT 2. Make sure the XLR cables are run behind the white mounting plate. See image below



At the speaker end the male ends of the XLR cables must be plugged in to the LINE INPUT XLR socket. Set all volume/tone adjustments to their mid point and make sure power is switched on at the power input.



Lighting Installation

The lighting bar can be installed in front of or behind the projector. For larger projections greater than 5m(16.4ft) we would recommend in front of the projector. See an example on the next page. We have supplied 2 x 8mm threaded rods which screw in to the far left and right holes on top of the lighting bar. These can then be mounted to a piece of truss or the ceiling slab. In terms of height make sure the lights don't shadow the projection when mounted in front of the projection unit. Also make sure the side of the light bar shown below faces the projection wall





Once the light bar is installed plug in the power cable and run the supplied 20m(65.6ft) XLR cable from the USB CONTROLLED DMX INTERFACE in the centre right of the cabinet. Plug the male end of the XLR cable in to the DMX Out of the unit, run the cable behind the white mounting plate and come out of the access hole below the DMX out. See image on next page. Then at the lighting bar end plug the female end of the XLR cable in to the DMX Input.



Once installed angle the lights down and away from the projection surface to insure no light is spilled on to the projection surface.

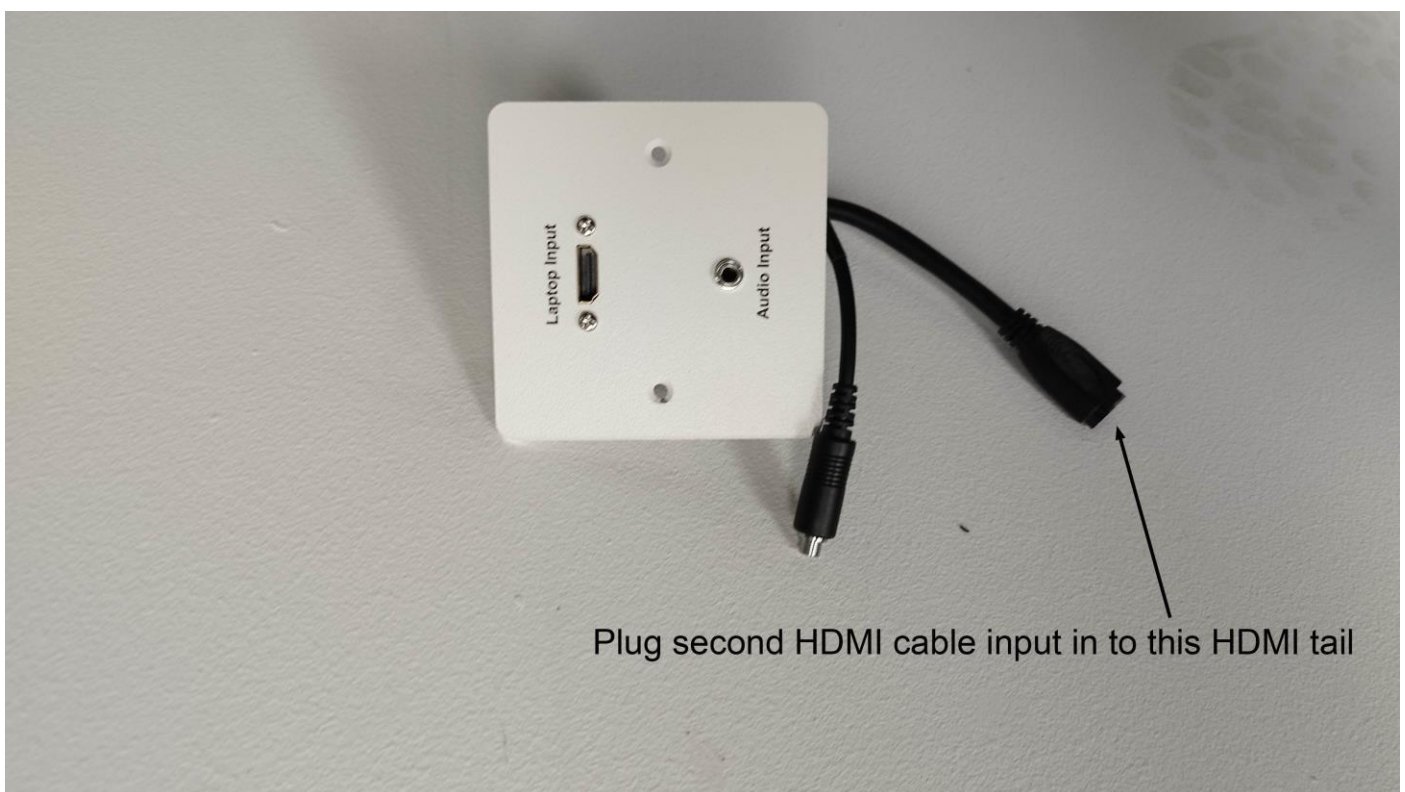
Projector cable Installation

We have included 2 x 20m(65.6ft) active cables which will run from the control cabinet to the projector. One cable will be connected to the mini PC in the cabinet, the other to the HDMI face plate in the top left of the cabinet. The HDMI cables are directional so must be installed in the correct orientation. See images below.



The output end of the cable must go to the projector. Connect the first cables input to the mini PC, run the cable behind the white mounting plate then through the hole below the mini PC and plug into the right hand HDMI port. See image on next page. Make sure the output end of this cable goes into the HDMI 1 input at the projector end.

Connect the second cables input to the HDMI tail on the back of the HDMI face plate located in the top left of the cabinet. First remove the face plate by undoing the 2 screws. The face plate is already connected to one of the audio inputs on the Audio controller so make sure this is not unplugged. Then connect the output end of this cable to the HDMI 2 input at the projector end. See image on next page.



After the HDMI cables are installed the RS232 serial control cable needs to be wired in to the projector controller in the top centre of the cabinet. First remove the control plate by undoing the 2 screws. Note the plate already has the power wired in. Then connect using the screw terminals on the back of the plate, brown to GND, green to RX and blue to TX, then screw the plate back on to the trunking. See images on next page. Once the controller is wired in feed the cable up to the projector and plug the 9 pin serial connector in to the SERIAL IN port on the projector.



Serial Cable



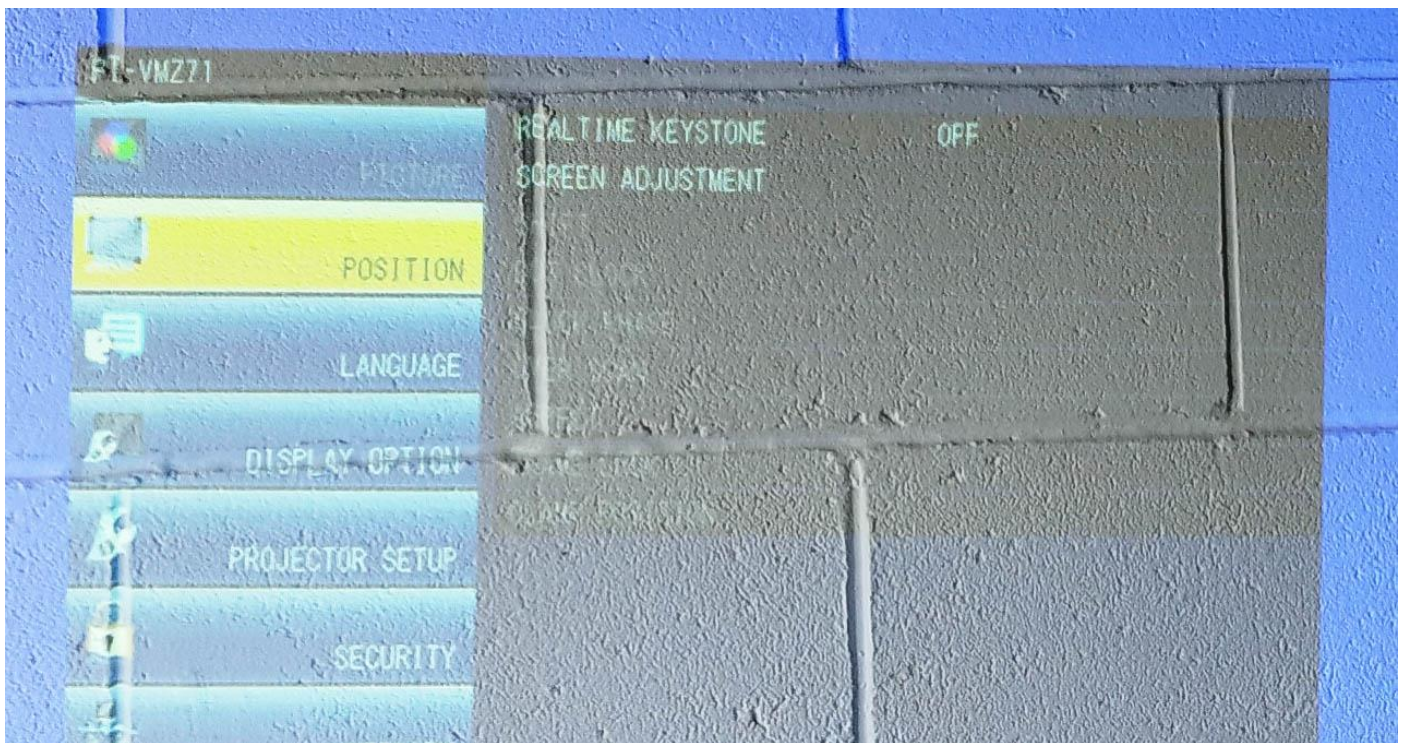
Wiring for projector controller

Projector set-up

Once the HDMI cables, control cable and power cable have been run down the projector pole, feed them through the neck of the universal joint and bolt the projector cage to the pole and tighten the Allen screws into the pole. Plug the PC HDMI lead into HDMI 1 and the face plate HDMI lead into HDMI 2, plug the serial cable into the SERIAL IN port and plug the power cable in. Switch on the projector using the remote control and level the projector by loosening the three Allen screws on the universal joint. Adjust the picture size and position using the Focus and Zoom dials on the lens and the vertical and horizontal shift wheels underneath the lens, see image below.



If the image is still not low enough you can tilt the projector down using the adjustment on the universal ball joint. We would normally have the bottom of the image around 0.4m(1.3ft) from the floor. If the projector needs to be tilted this will create keystone so the image can be corrected using corner correction in the projectors menu, under POSITION/SCREEN ADJUSTMENT, see image below.



Lidar Installation

Once the projection image size and position has been finalised you can install the Lidar unit. The Lidar unit should be positioned just above the top centre of the projection image and shouldn't shadow the image. See image below.



Fix the Lidar to the wall through the two holes at the top of the bracket using suitable fixings for the wall substrate. Insure the Lidar unit is perfectly level by first securing one hole and then using a level on the unit before securing the second. Plug in the power supply and 15m Ethernet cable to the Ethernet port on the Lidar cables. Run the Ethernet cable back to the control cabinet behind the white mounting plate and up through the hole below the mini PC. See image below.



Switching the System on

Open the lock/changing the password

For the Electronic Lock with 4 digits

To Unlock the cabinet type in 1234 then press OK and rotate the knob to open, do the same again to close but rotate the knob to lock. To change the password open the lock as above, press OK for at least 2 seconds the unlocking indicator light will blink, input new code then press OK, when you hear a long beep means code has changed.

*codes can consist of 4-15 digits.

For the Mechanical lock with 3 digits

To Unlock the cabinet select 000 then rotate the dial clockwise. To set a new code unlock the lock, use a solid pin and insert in to the hole located on the right hand side of the dial. While pushed in set the new code, then remove the pin. Rotate the dial anticlockwise to lock the cabinet.

Powering the system on

Once the cabinet is open switch the main power switch in the top right to on, wait 10 seconds and press the ON/OFF button on the projector controller it should light up green, then the projector should switch on. If it doesn't press the ON/OFF button again, it will flash red for 10 seconds, then press again to try switching it on again. If it still doesn't come on check the cabling in the back of the controller. Once the projector is on, switch the mini PC on using the button on the top left of the mini PC. After booting the ISportsWall software will automatically load, this takes around a minute. Make sure the audio controller is on, there is a switch on the left hand side above the XLR outputs. Set the volume on the audio controller to minimum using the back knob, see image on next page, turn it all the way to the left. Switch on the keyboard using the switch on the top right, adjust the Windows volume to maximum using the volume controls on the wireless keyboard. Now set the desired maximum volume by turning the knob to the right on the audio controller. Go to the System Calibration instructions on the next page.

Switching HDMI Inputs

To switch HDMI input from the ISportsWall mini PC to the laptop Input on the top left hand input plate, press the CYCLE SOURCES button on the projector controller. This will switch the input on the projector from HDMI 1 to HDMI 2. For sound on HDMI 2 you will need to connect a 3.5mm audio cable to the audio input on the plate. To switch back to HDMI 1 (mini PC) press the CYCLE SOURCES button again. You should wait several seconds between presses so the projector has time to switch.



Powering the system off

First power the mini PC off by either using the power button on the front menu of the ISportsWall software or pressing the power button on the top left of the mini PC. Then power off the projector by pressing the ON/OFF button on the projector controller, the button should flash red for 10 seconds you can then switch off the main power using the top right power switch.

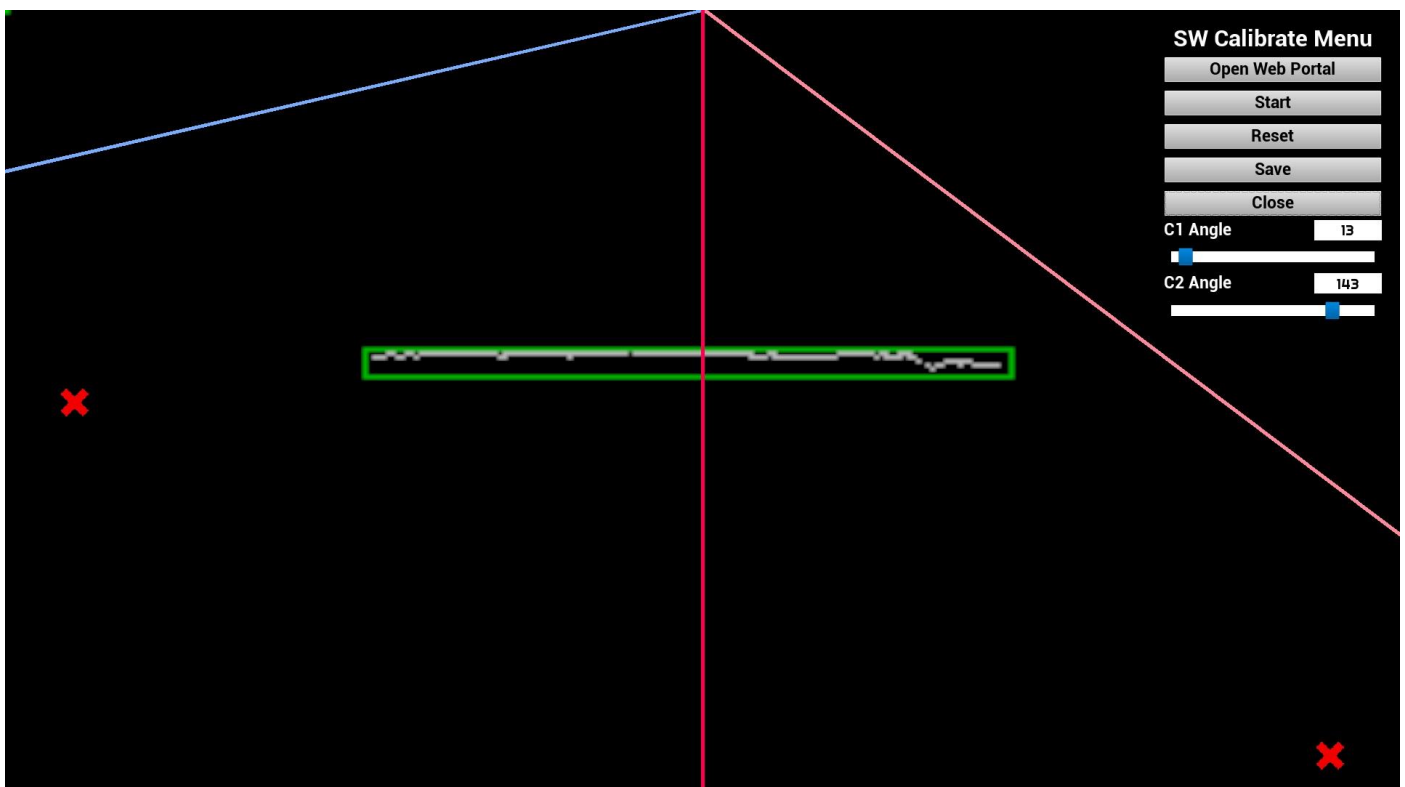
System Calibration

Make sure the system is on and the main ISportsWall menu is showing on the projection wall. If it isn't press the CYCLE SOURCES button on the projector controller to make sure the source is HDMI 1. To navigate the menus you can use the track pad on the wireless keyboard and click on the options using the left mouse button (top left yellow button on the keyboard). Once the application is loaded its recommended to check the resolution. First stop the ISportsWall software by clicking in the window, then using the wireless keyboard press Alt+Func+F4 keys at the same time. This will stop the application and bring up the Windows desktop. Right click on the desktop and select Display Settings. When opened scroll down and check the display resolution matches the projectors native resolution, it should be 1920x1200. Once the correct resolution has been set, close the Display Settings window and double click on the ISportWall shortcut icon on the desktop. Once the application has launched it will show the window below. Click on

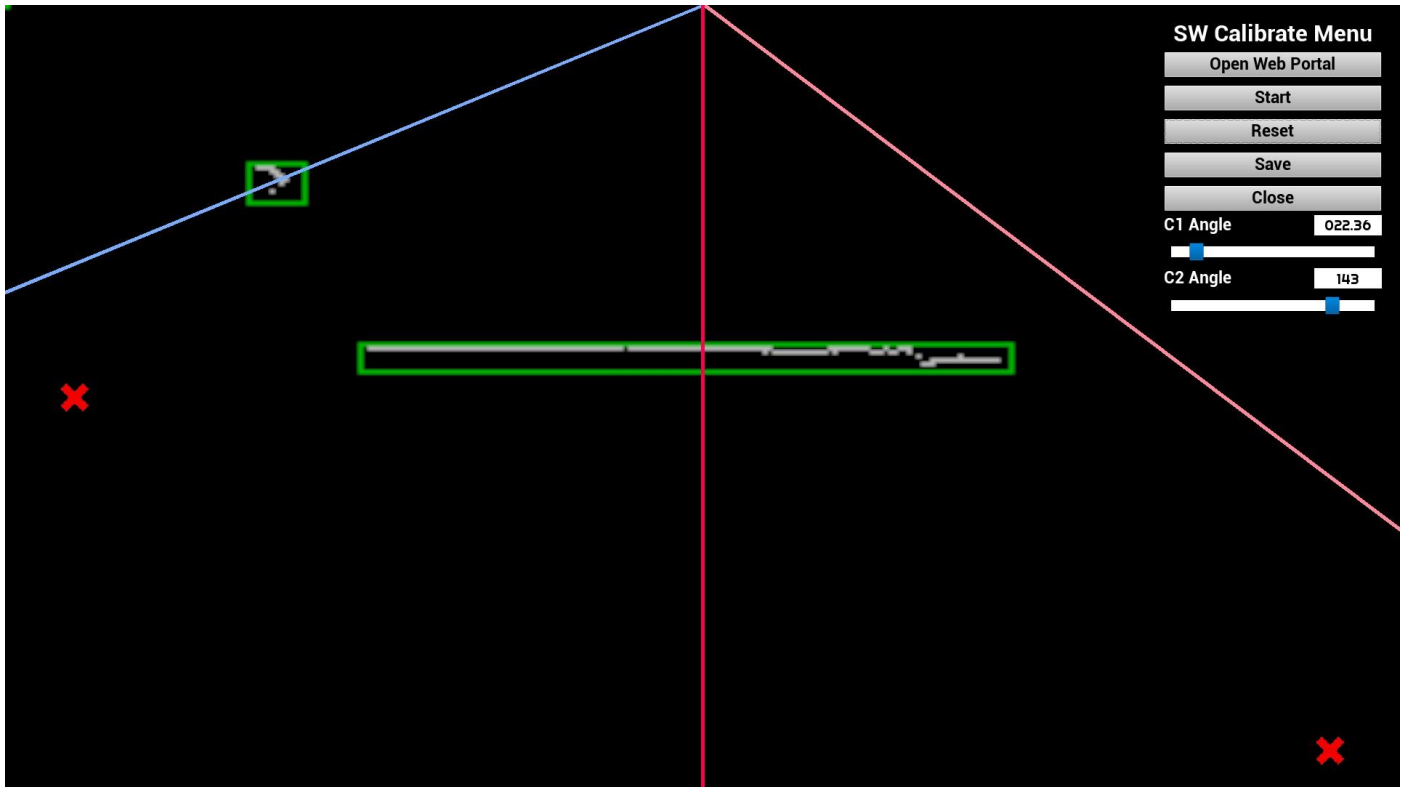
CALIBRATE with the left mouse button.



This will then bring up the screen below.



First get someone to hold there fist against the wall centred on the left hand red cross, a finger may also work. A green box should appear like the image below. Using the C1 angle slider change the angle of the blue vector so it goes through the centre of the box.

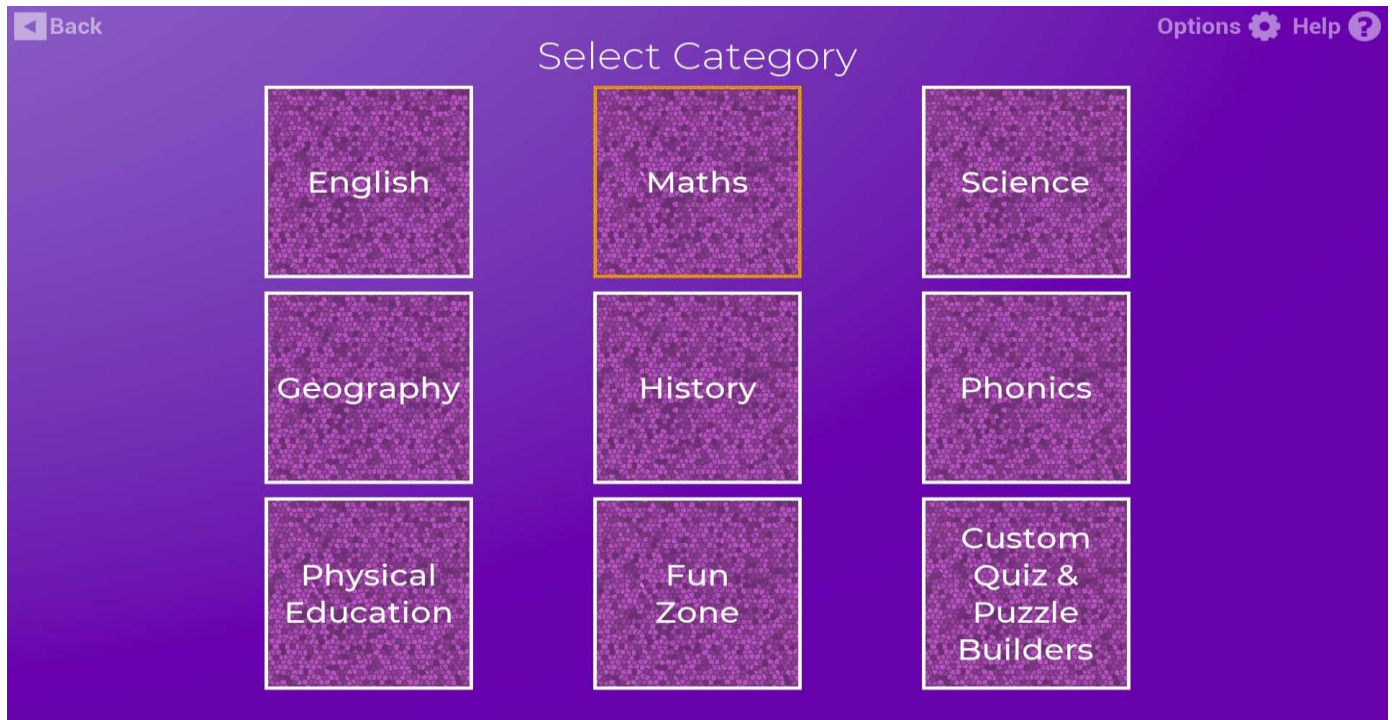


Do the same for the bottom right red cross and adjust the C2 angle for the pink vector. Once both have been set press the Start button. Only the left hand cross will appear, get someone to hold their fist or finger against the centre of the cross and press the calibrate button, the cross should disappear and the bottom right hand cross will appear. Again get someone to hold their fist or finger against the centre of the cross and press the calibrate button. A red box should appear like the image below, press the Save button and then the Close button to take you back to the main menu. The system is now calibrated.



To test the accuracy of the system press the PLAY button off the main menu, select Maths, select the first "Quick Quiz Maths" game, select 4 players and click on "Continue", then select any age range. Then check

the accuracy on the top left/right and bottom left/right answers by throwing one of the supplied foam balls, you can also use your hands on the lower answers. If it is not accurate use the “Esc” key or “Back space” key to exit the game, then hit the “Back” button at the top left of the Maths menu and then the “Back” button at the top left of the Category menu. This will go back to the main menu where you can select calibrate again. Remember ball size must be a minimum of 100mm in diameter and be made of foam.



Note there is a detailed help section that is off the main subject menu page in the top right (see image on page 19). This covers, calibration, navigation, play and the options menu.

Contact Information

For any issues during installation email technical@amazing-int.com

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