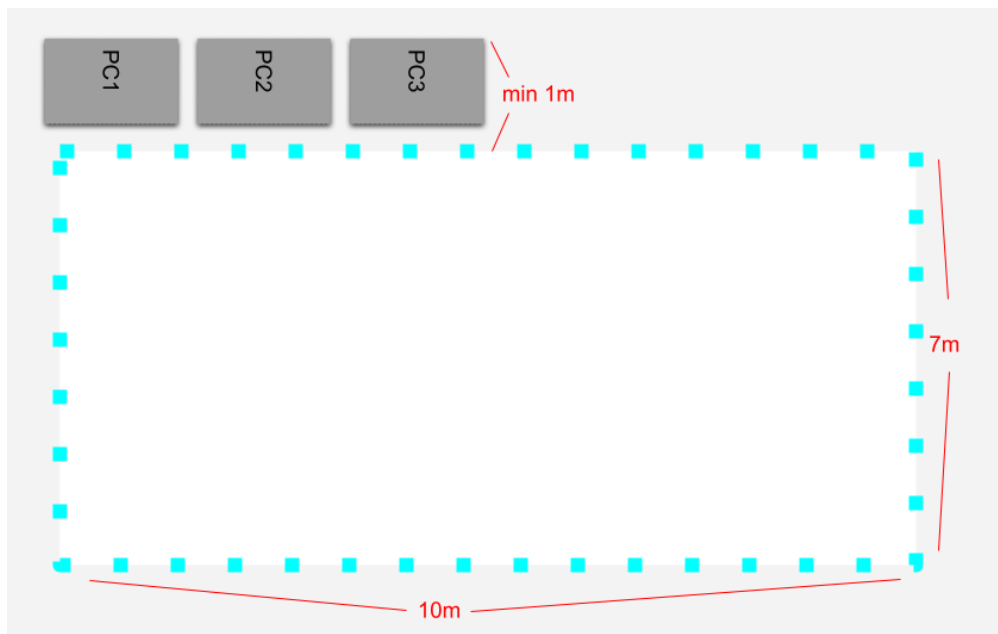# KUBO, WALKS THE CITY(3 pers)
Installation Guide

LIST OF NECESSARY Hardware for 3 pers multi play :

- 3 x PC Vr ready (ex: i7-9700F 3.60 GHz (8) cores, RTX 2060 ,GSKILL DDR4 16GB F4-2666C19S-16GRS, Win 10) + 3 keyboards, 3 monitors, 3 mice
- 3 x Oculus Quest 2 (named : Quest A, Quest B, Quest C)
- 3 x External batteries min 10 000 mAh or 3 x Backup Oculus Quest 2 (named : Quest D, Quest E, Quest F)
- 3 x android (or iPhone) : different Facebook account should be installed in each phone
- 3 x Audio headphones
- 1 x Router (ASUS RT-AC86U) + 3 LAN cables to link from Router to each PC
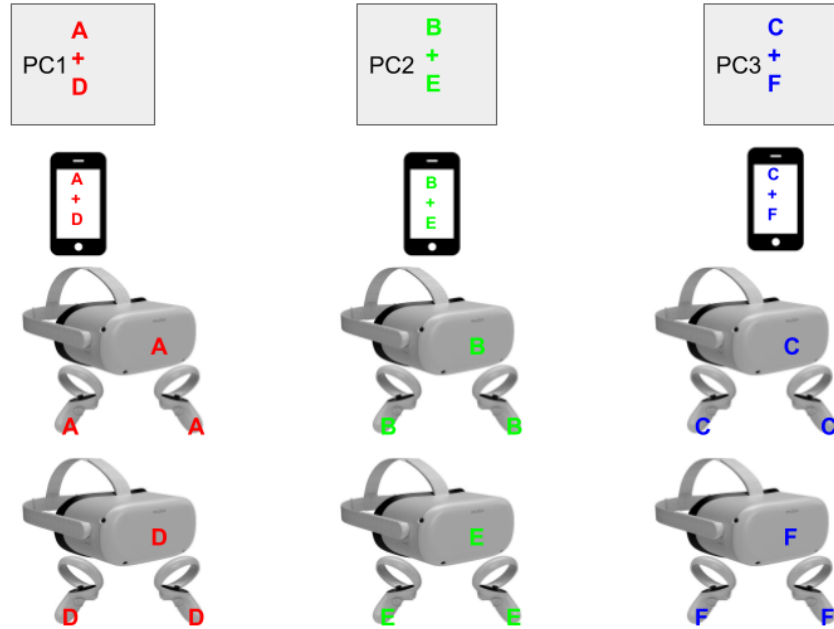- Desk + Eyeglass cleaning wipes + Trash can

Minimum Space :

10m×7m for the VR experience + extra space for PC desk
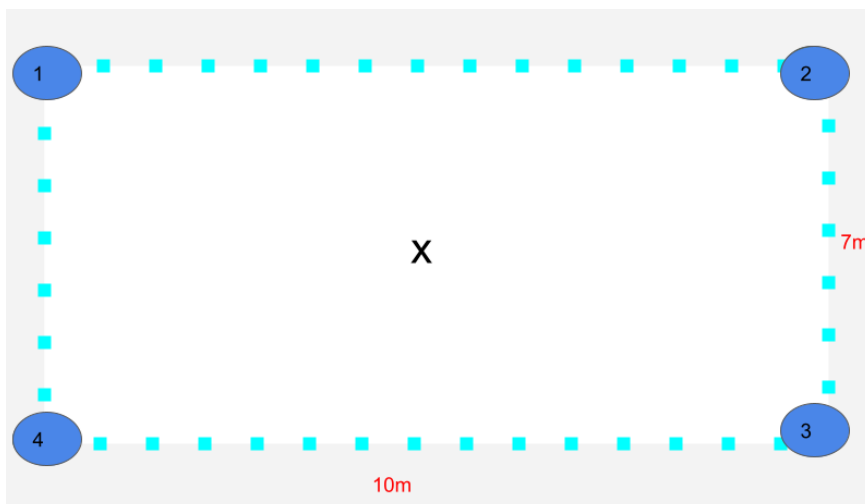
Important :

- Have a 'DOCENT TRAINING DAY' before the festival and keep the same docent during the whole festival.

- Mark all materials

- Stick a scotch to the sensor inside of Quest

- Mark the floor with numbers from 1 to 4 and the center X.

- KUBO, WALKS THE CITY is a free roaming experience (no controllers required).

- Multi-play up to 3 pers : do not walk too fast, you will see white halos(position of VR headset) representing the other viewers, but they can have some delays or gaps, so it is better not to rush
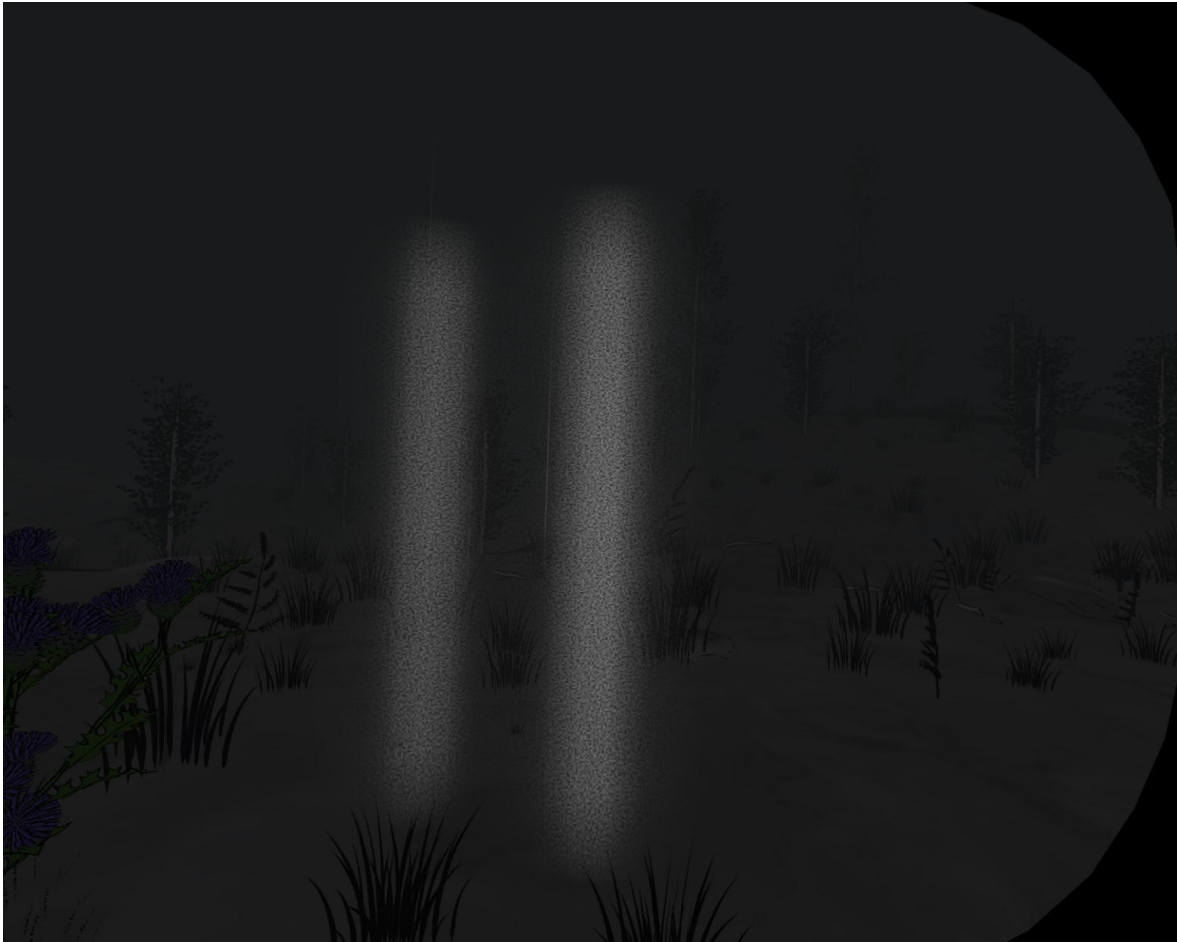
example: the other two players seen by viewer 1

- Bring in the viewers 1 by 1 successively with a 5 minutes lag, (Do not bring all three viewers in at the same time)

- **After ending credits, the experience will be restarted automatically**

- If you need to **relaunch the Client file** in the middle of experience, **press R for 2 secs** on the keyboard of the PC concerned.

Installation :

1)

A) Install 'Oculus Rift Software' on each pc.

https://www.oculus.com/rift/setup/?locale=en_EN

B) Install Steam on each pc.

 https://store.steampowered.com/about/

C) Install SteamVR on each pc.

https://www.youtube.com/watch?v=TxwhBhZGwfU&ab_channel=EqualReality

D) Download 'Virtual Desktop streamer'(https://www.vrdesktop.net/) on each pc.

E) Download Oculus App and Facebook App on each phone.

F) Connect to Facebook account then you can connect to Oculus app with Facebook on each phone.

G) Pairing one (and backup) Oculus Quest to one phone by using Oculus app.

H) Facebook has tightened login security. In case you have a problem connecting to our Facebook account, use your own Facebook account. 'Virtual Desktop' must be bought on the Oculus store with Quest.
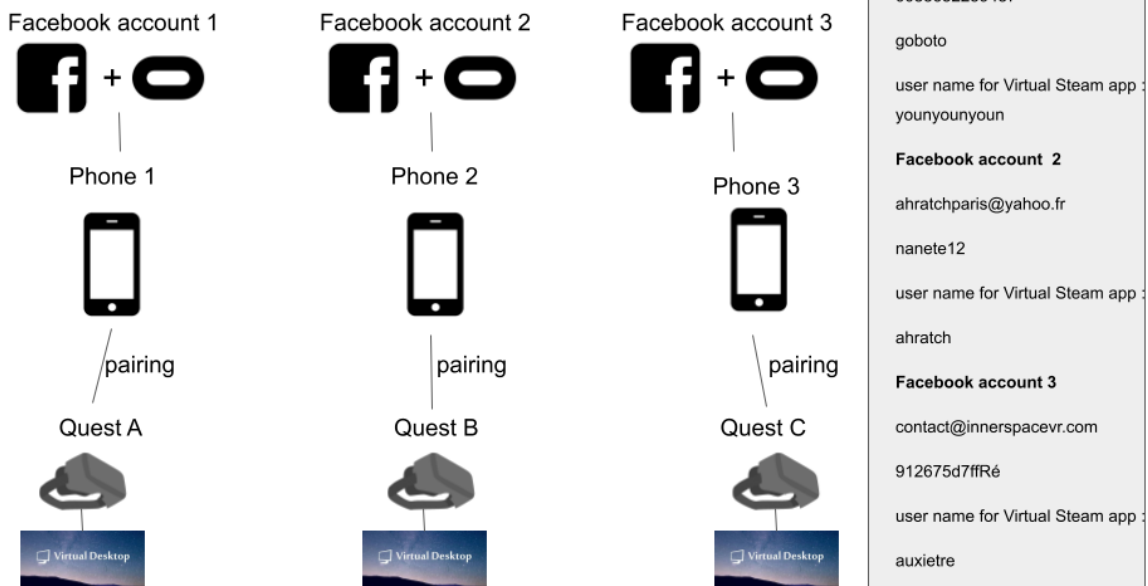
2) **PC1 has a Server file + a Client file installed.**
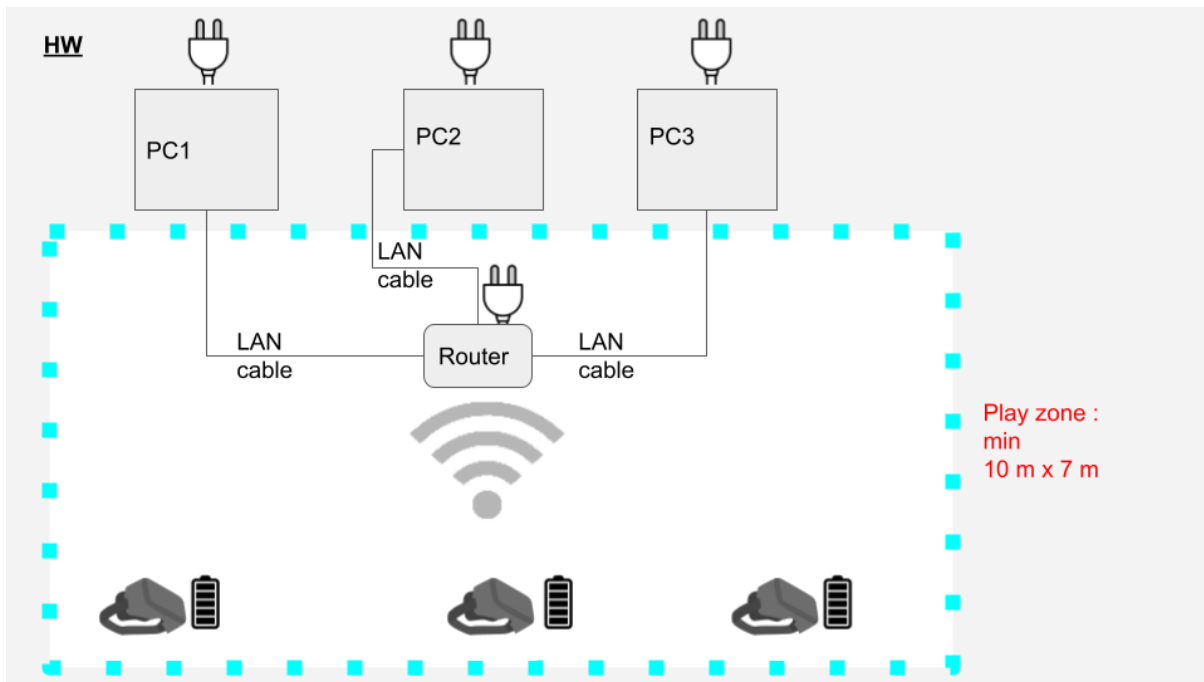PC2 has a Client file installed.
PC3 has a Client file installed.
https://drive.google.com/drive/folders/1msmrWYR2ImFxKvonvKF7hf670yzqB3fL?usp=sharing
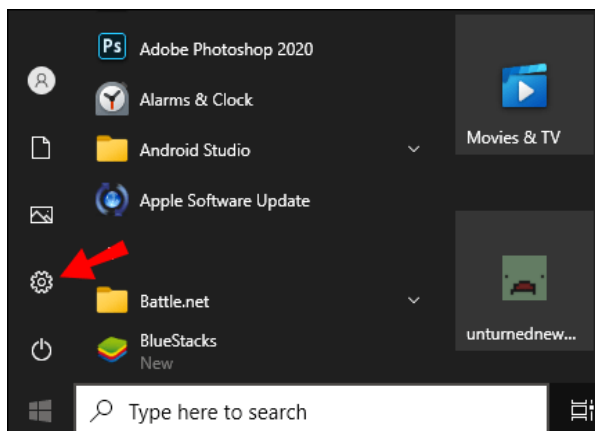
PC1
Server
+ Client

PC2
Client

PC3
Client

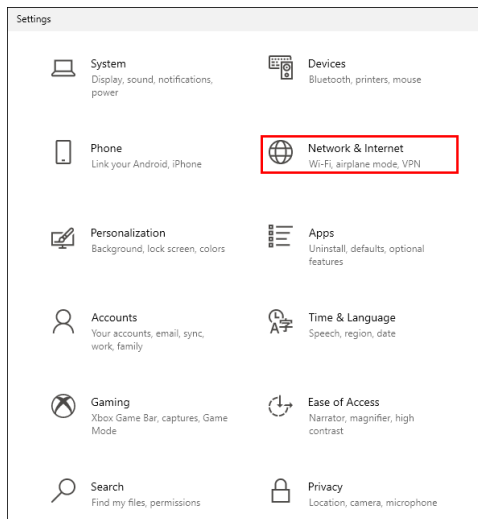3)Make sure all PCs are linked with the Router and turn on the Router

4)Switch From Public Network to Private Using Ethernet Lan Settings in all PCs
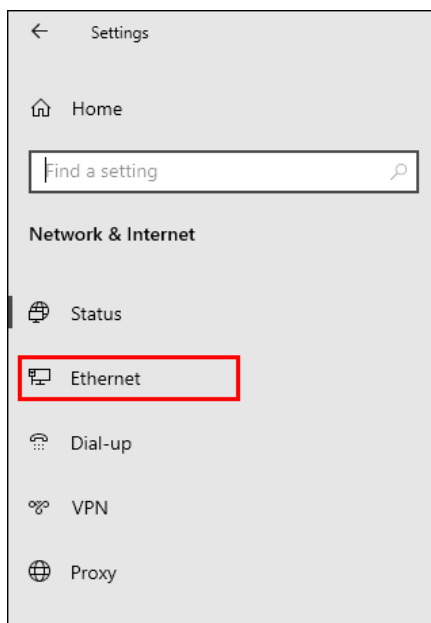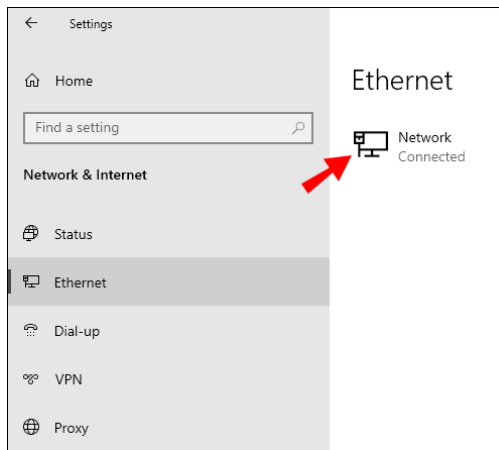 1. Open **Settings** from the Start menu.

2. From here, select the **Network & Internet** settings option.
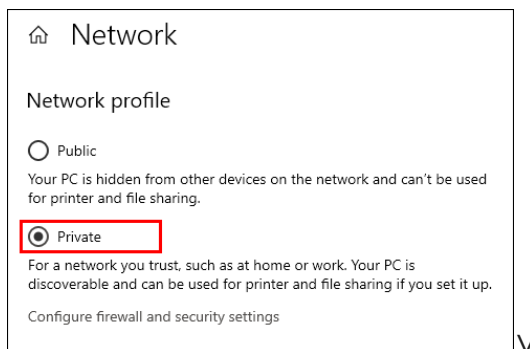

3. Select **Ethernet** from the menu on the left.

4. Click on the name of your connection.

5. Select **Private**.

V

5) Make sure all PCs are connected to the same network 5G from Router and Virtual Desktop Streamers are running on each PC and enter Oculus Username. Check Center to play space in the menu of Virtual Desktop. (https://www.youtube.com/watch?v=PsIjmTvOwCE)
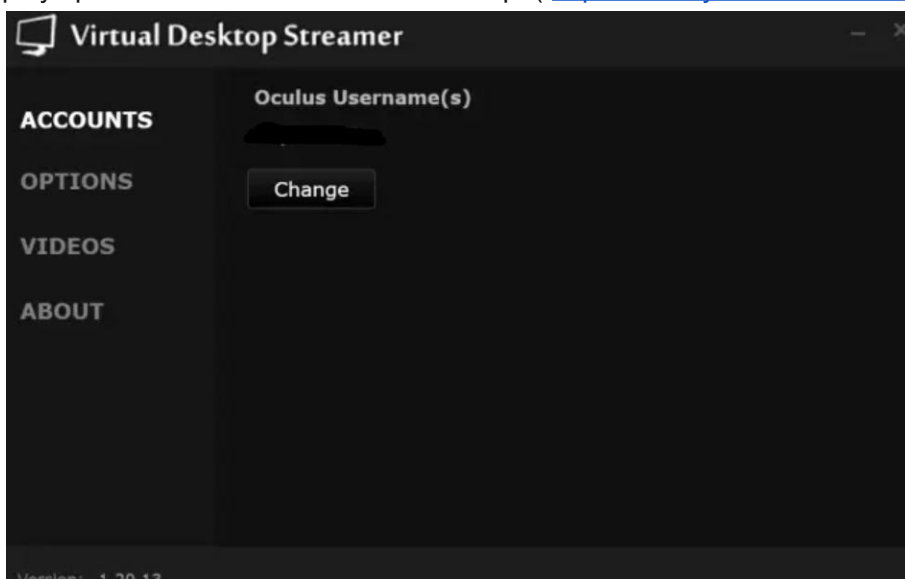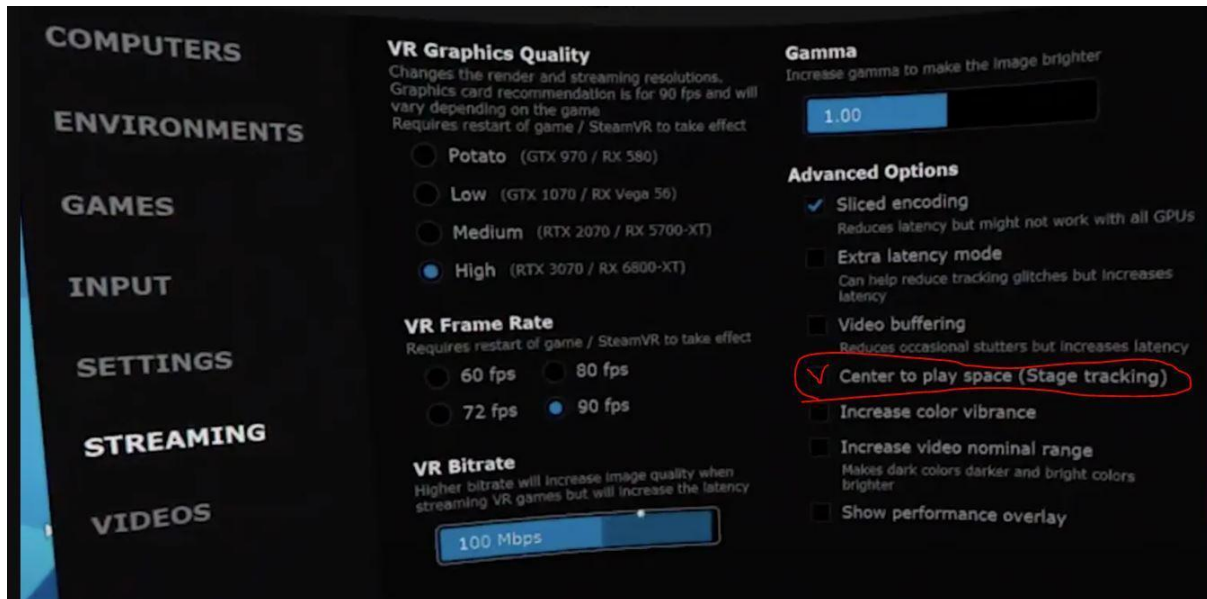
6)Only in PC1, launch the Server file (double-click with a mouse on the PC 1) :
Server-Development \WindowsNoEditor**start game master.bat**

If you have this message, please authorize access
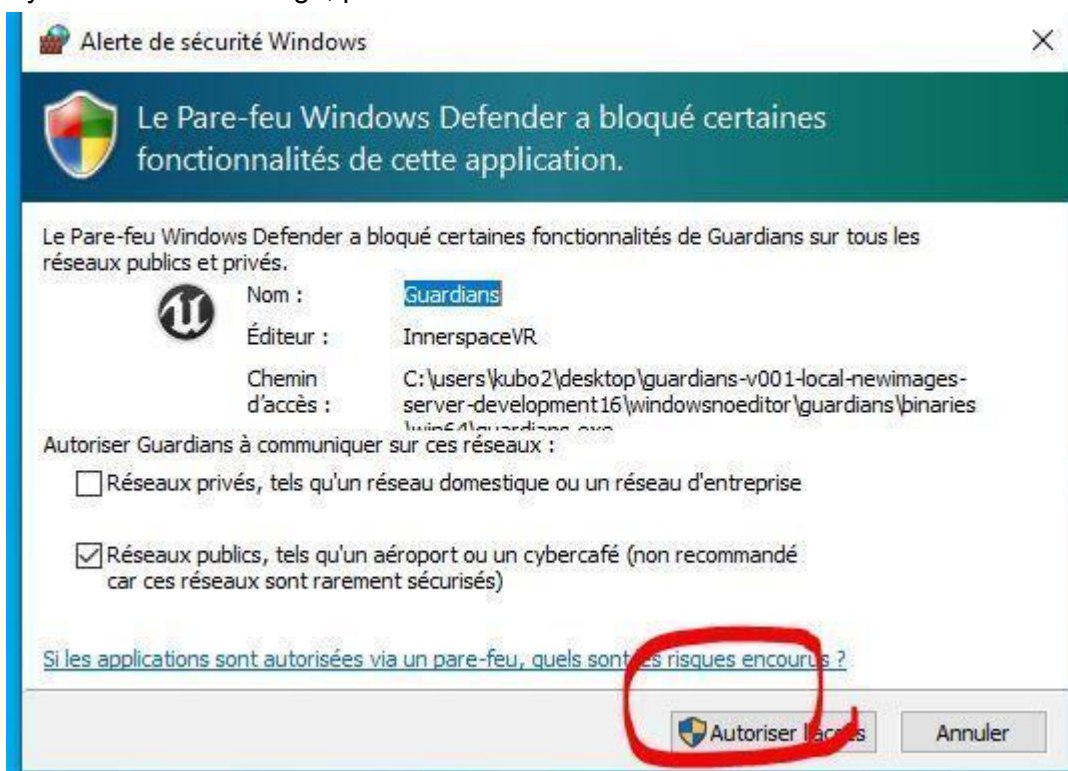
7) Go to X (the center of exhibition space) with Quest A and turn on Quest A then, you can draw Guardian from 1 to 4

FYI : If you are not in the center of space, you can't draw a guardian for 10m.

Guardian - Center of the space

5m | 5m
7M
TURN ON / REDRAW
10m
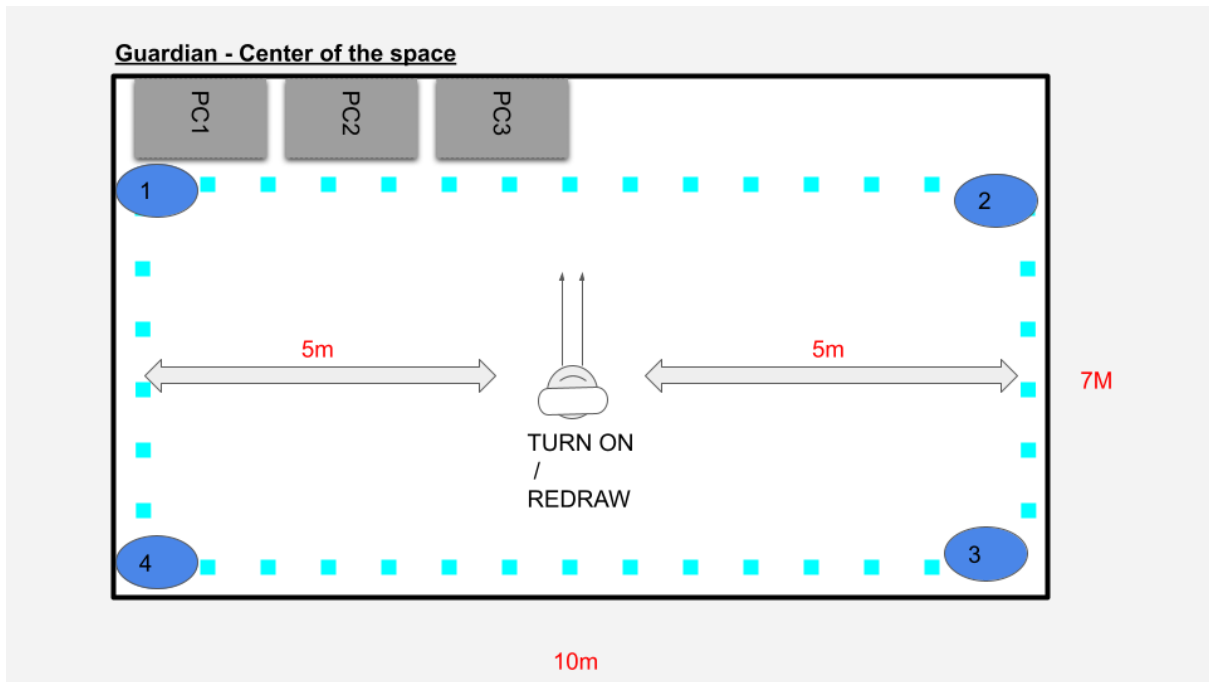
8)Make sure all Quests are connected to the same 5G network from the Router: Network Name kubo Password kubokubo
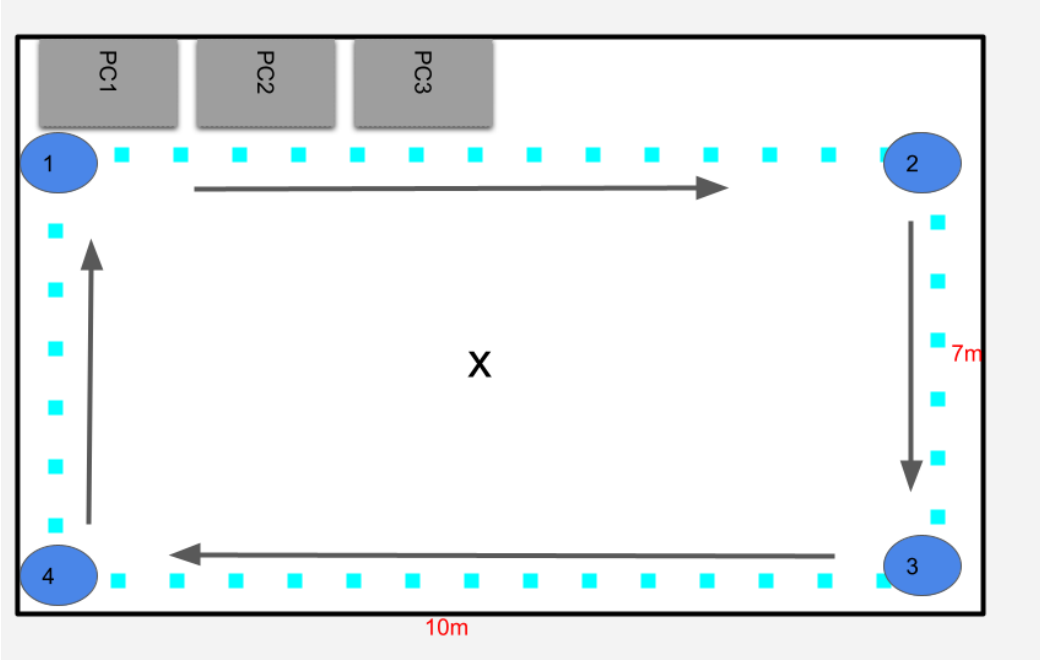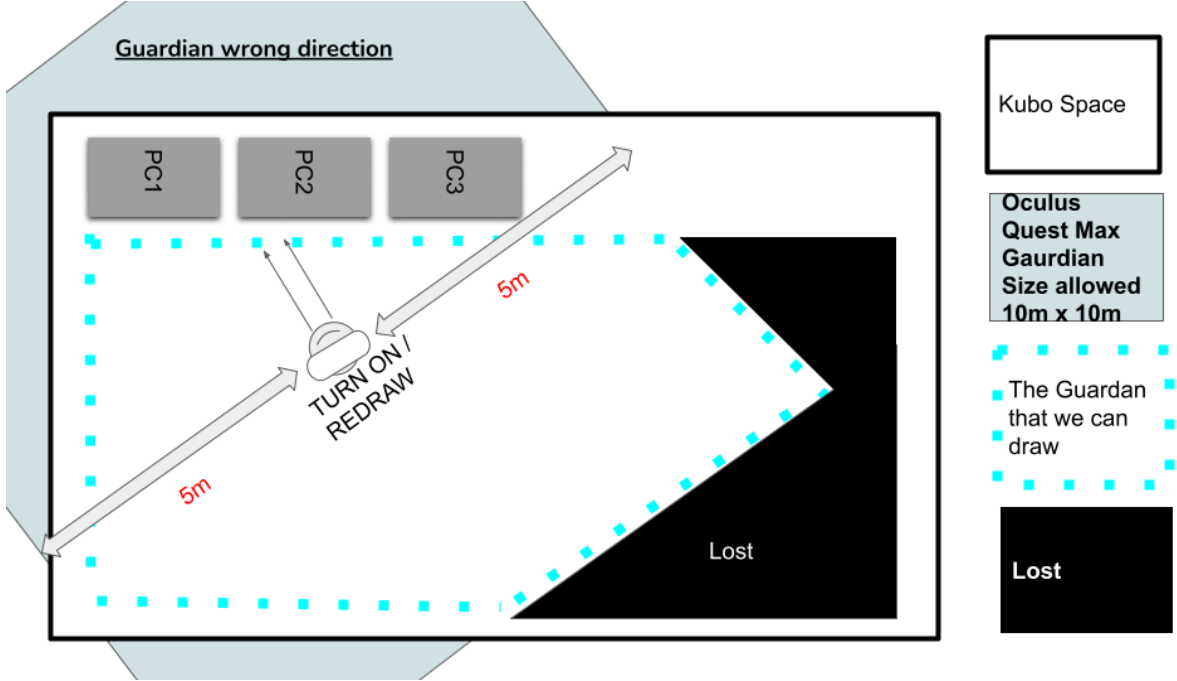
9)In Quest A, launch VirtualDesktop to connect PC1

10)PC1 is always connected to Quest A via VirtualDesktop
PC2 is always connected to Quest B via VirtualDesktop
PC3 is always connected to Quest C via VirtualDesktop

SW_2

PC1 Server + Client | PC2 Client | PC3 Client

Virtual Desktop Streamer

Router

Quest A+ external battery   Quest B+ external battery   Quest C+ external battery

The position of all users is communicated for each Quest
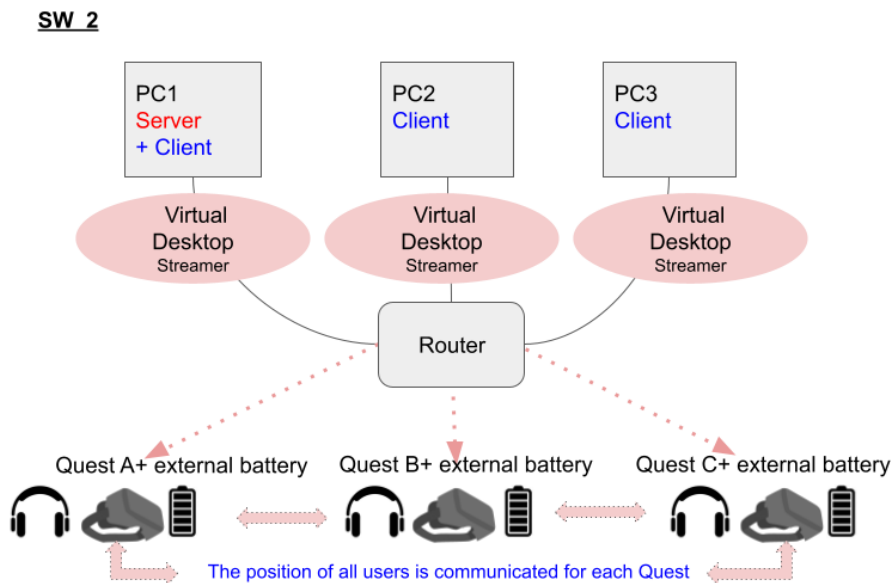
11)If Quest A is connected to PC 1, you can see the desktop of your PC1 inside of Quest A.

12) with Quest A, launch the client file (press the trigger 2 times)
Client-OculusRift-Development Final\WindowsNoEditor **StartWithVirtualDeskto.bat** of
PC1 with the Quest controller.
It may take several seconds to connect to Server.
Be patient and don't launch twice.

13)For Quest B, go to X and power on, draw Guardian and launch the client file of PC2
Client-OculusRift-Development Final\WindowsNoEditor **StartWithVirtualDeskto.bat**
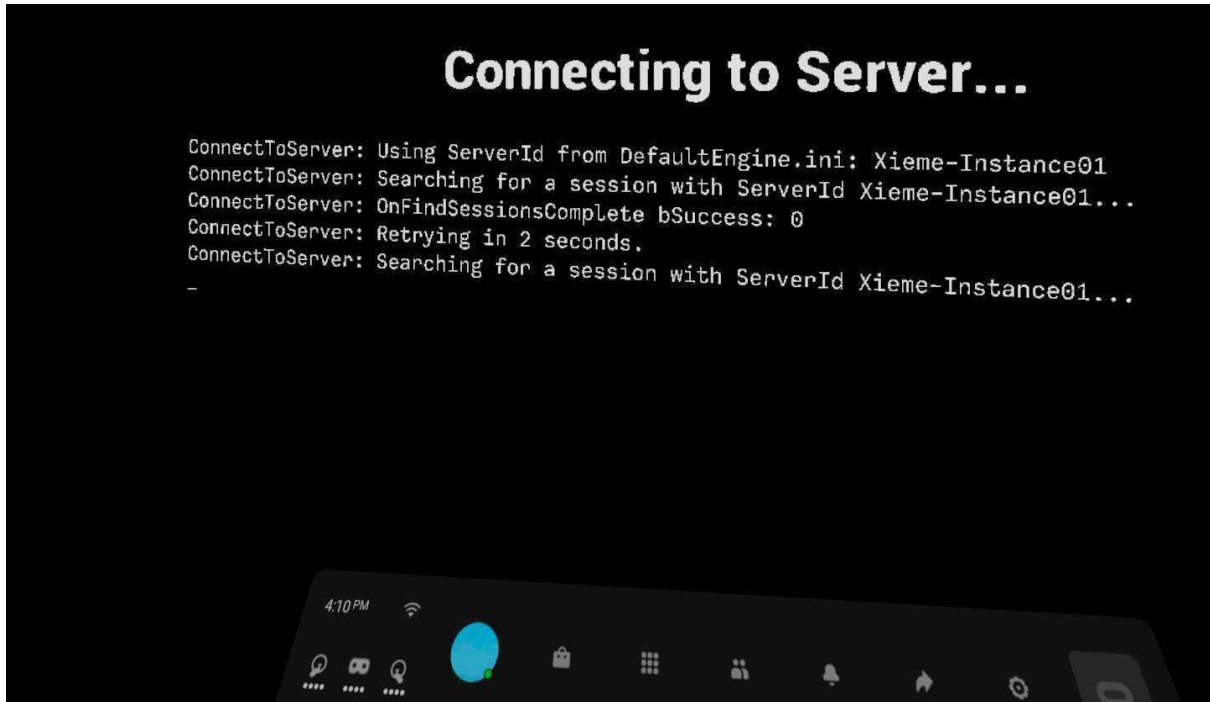 (press the trigger 2 times with the controller).

14)For Quest C, go to X and power on, draw Guardian and launch the client file of PC3
Client-OculusRift-Development Final\WindowsNoEditor **StartWithVirtualDeskto.bat**
(press the trigger 2 times with the controller).

 15)In Quest A, if the client is connected to the server, you will see the menu for language
selection and start point (white splodge) on the ground. (But the orientation of virtual space

will be completely offset from our physical space)

16)We will do **'Room Calibration'** (calibrate of the virtual space with a controller) to set up the start point (white splodge) like below.
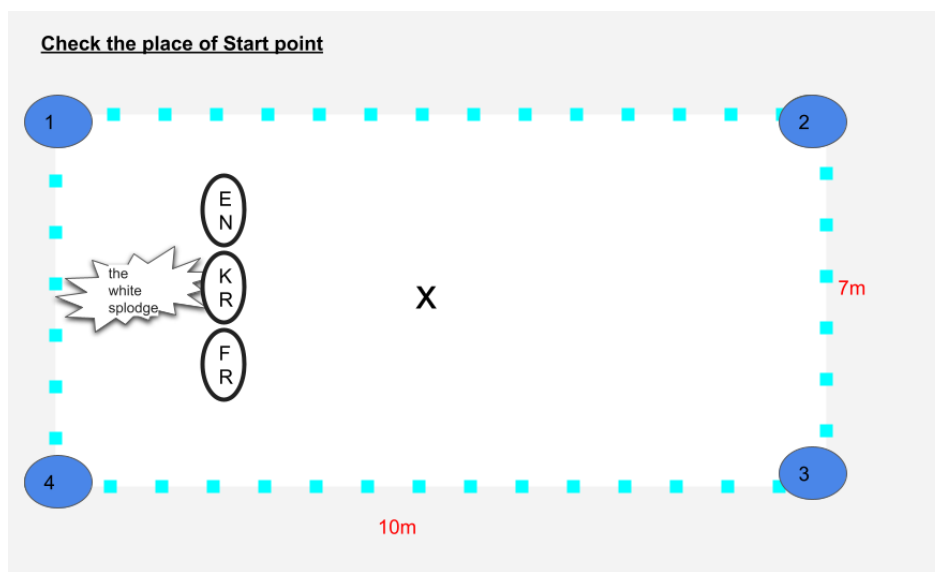
'Room Calibration' :
Hold down both buttons A and B (or X and Y) of the controller for 2 seconds to show the Room Calibration mode.

Room Calibration - Step 1/4

Walk up to the corner of your physical space that is closest to the starting area.

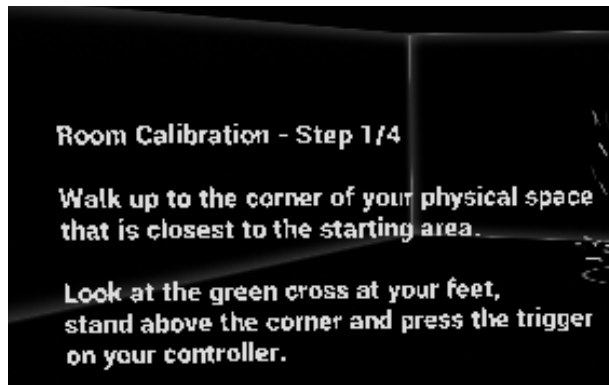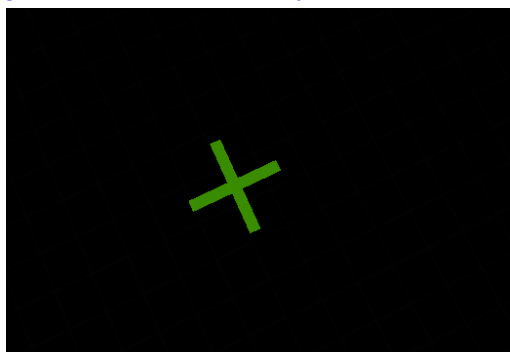Look at the green cross at your feet, stand above the corner and press the trigger on your controller.

You will see a virtual green cross at your feet (green cross is your position. if you move, the green cross will follow you) please follow the instructions of Room Calibration inside QuestA

Go to N°1 of the exhibition space and try to fix (press the trigger) this virtual green cross to N°1 of the exhibition space.
When you fix your first virtual green cross, you will see a green ball with a number as below

Room Calibration - Step 2 /4

Now walk clockwise to the next corner of your physical space.

Stand above the corner and press the trigger on your controller.

If you wish to start again, press-click the thumbstick on your controller.

Go to N°2 of the exhibition space and try to fix second virtual green cross to N°2 of the exhibition space.

Room Calibration - Step 3 /4

Now walk clockwise to the next corner of your physical space.

Stand above the corner and press the trigger on your controller.

If you wish to start again, press-click the thumbstick on your controller.
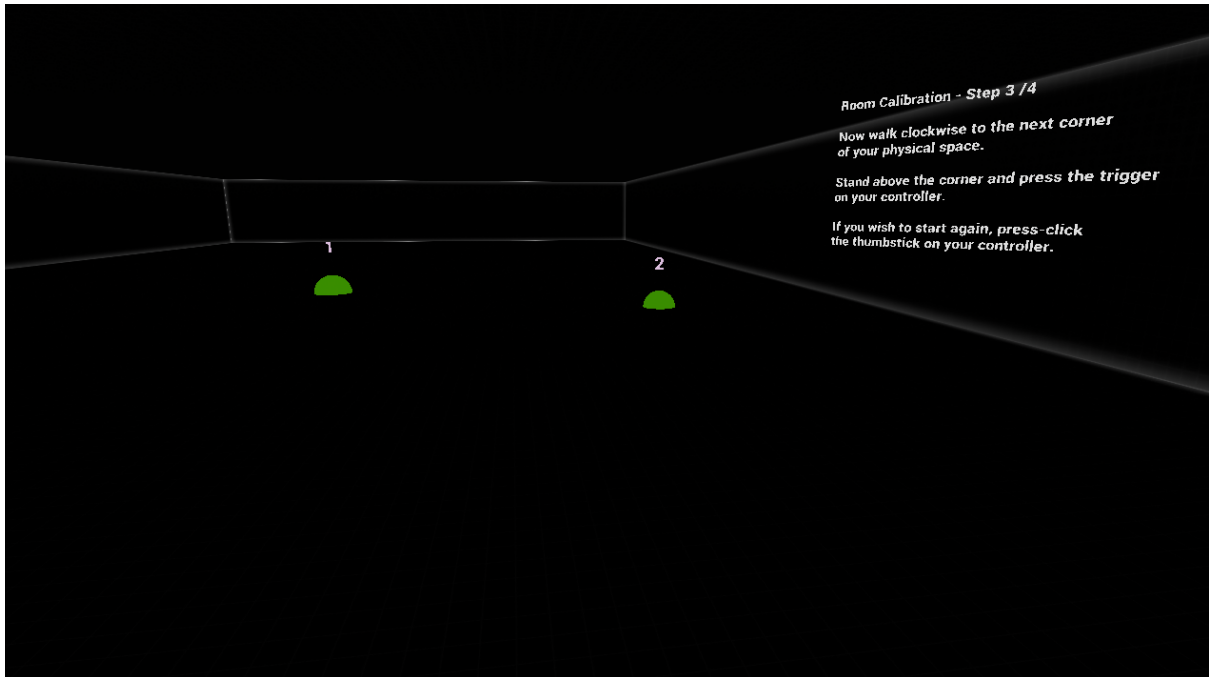
When you fix 4th virtual green cross, the virtual space will be calibrated automatically

Room Calibration - Done!

Walk around and inspect the room calibration to make sure it is correct.

If you wish to start again, press-click the thumbstick on your controller.

When you're done, hold down both buttons A and B (or X and Y) to exit the Room Calibration mode.
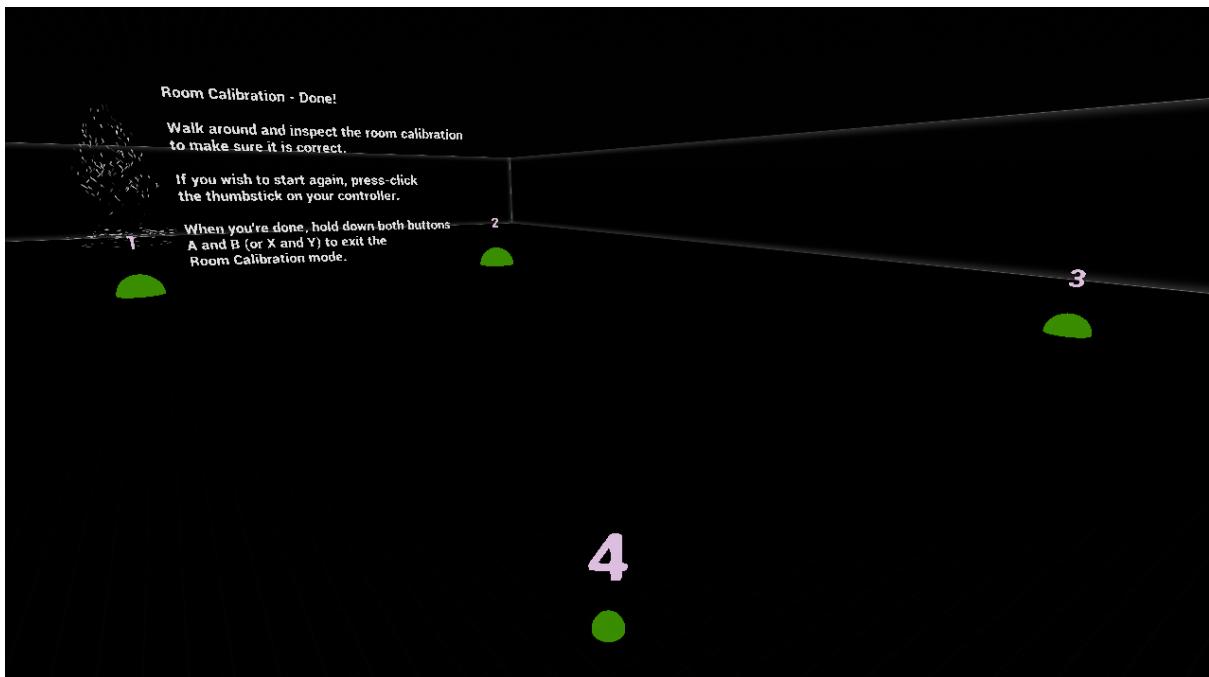
CHECK : The starting point (white splodge) should be in the middle/ between of 1 and 4
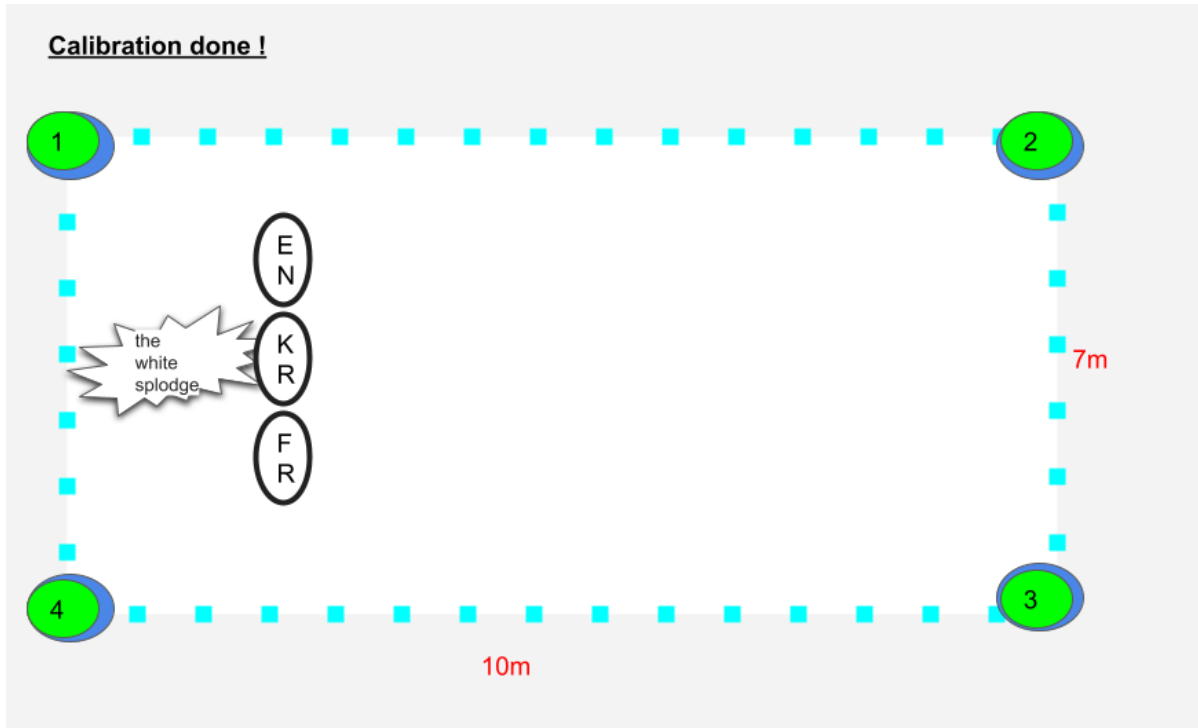
Calibration done !

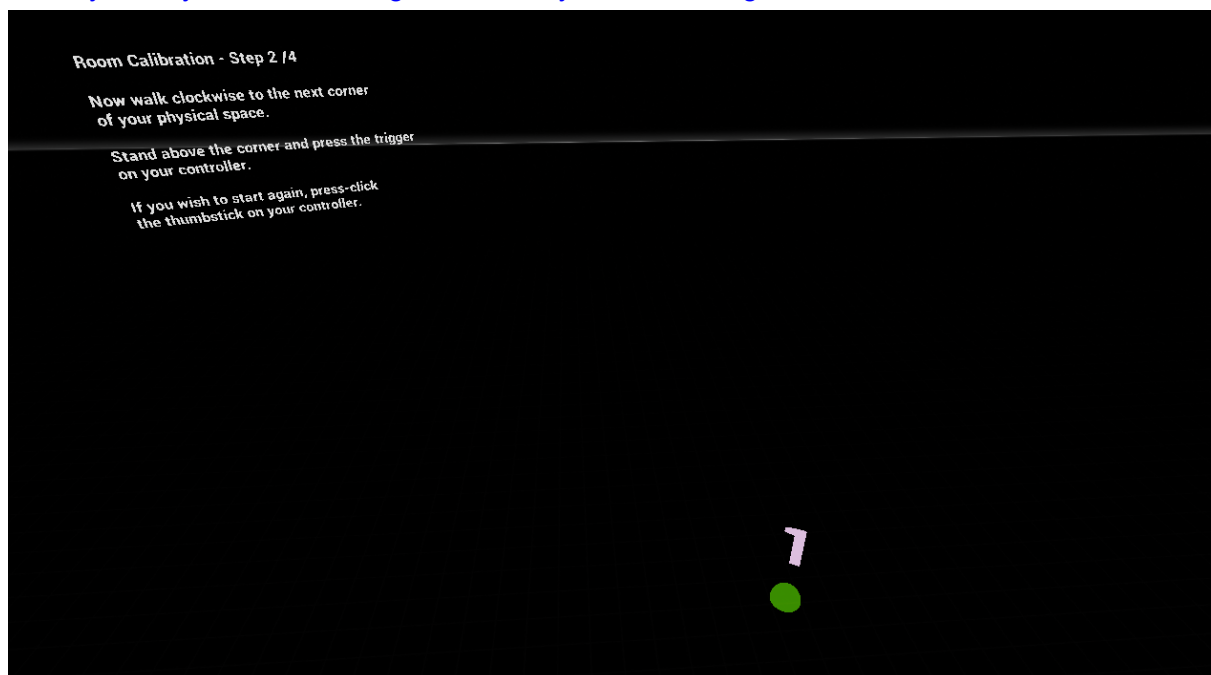hold down both buttons A and B (or X and Y) of the controller for 2 seconds to exit the Room Calibration mode.

If by mistake, the numbers are fixed in the wrong place, we must still continue to fix until number 4 then hold down both buttons A and B (or X and Y) of the controller for 2 seconds to exit the Room Calibration mode. And restart **'Room Calibration'.**

17)Mark the place of white splodge on the ground to inform the start point to the viewer.
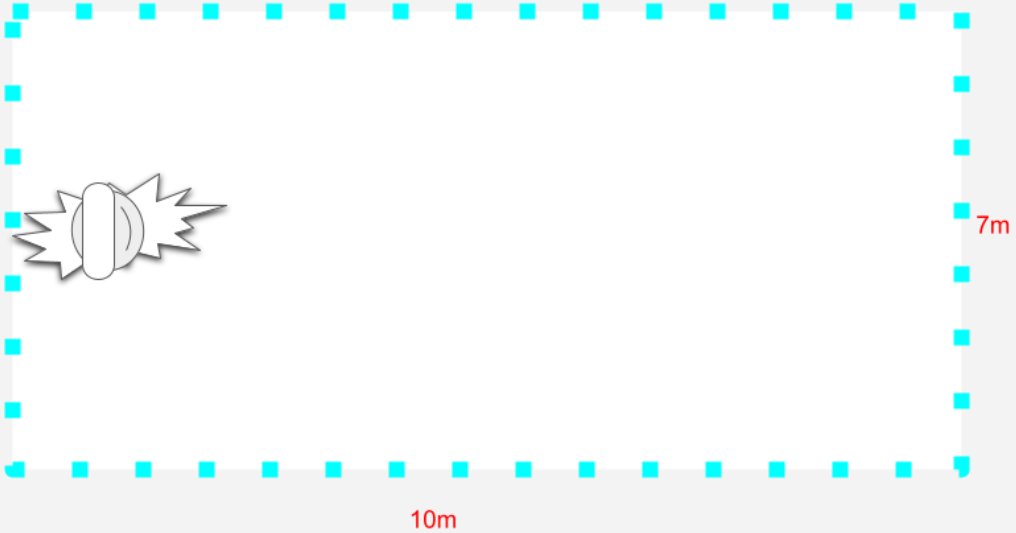
Mark the starting point
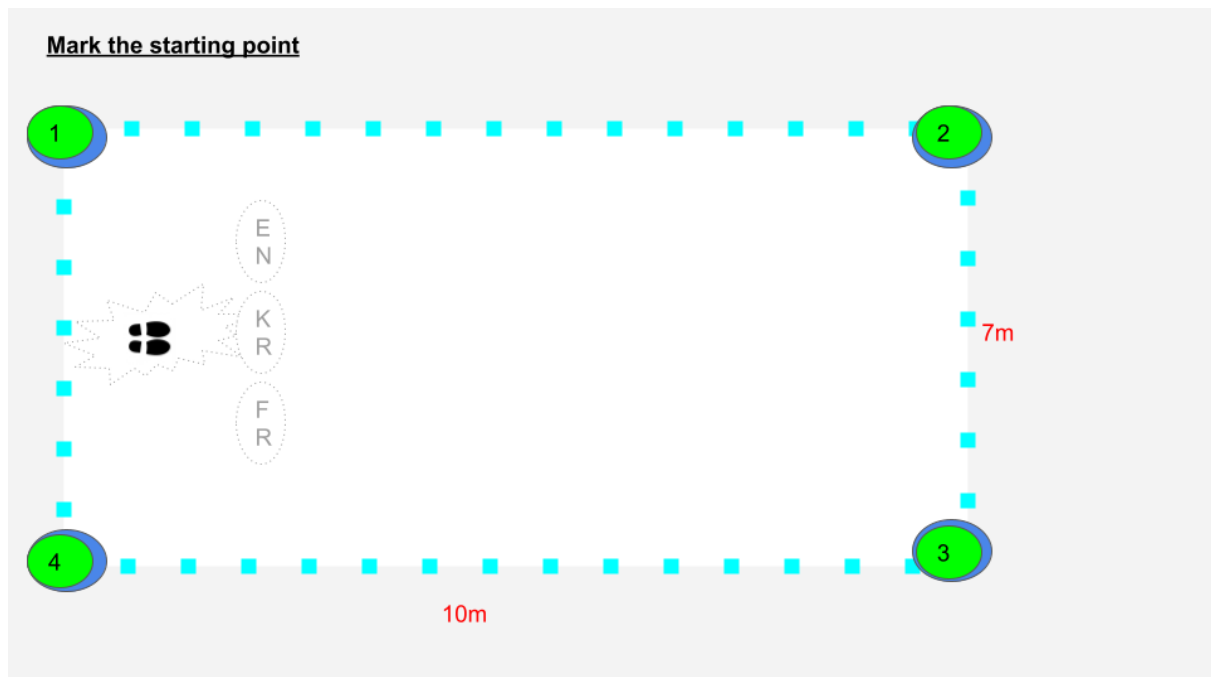
18) **Stand on the white splodge,** then the viewer can choose language by movement of their head (activated with the viewer's gaze).
It will start automatically.

Selection of language (activated with the viewer's gaze)

E
N

K
R

F
R

7m

10m

Start !

7m

10m
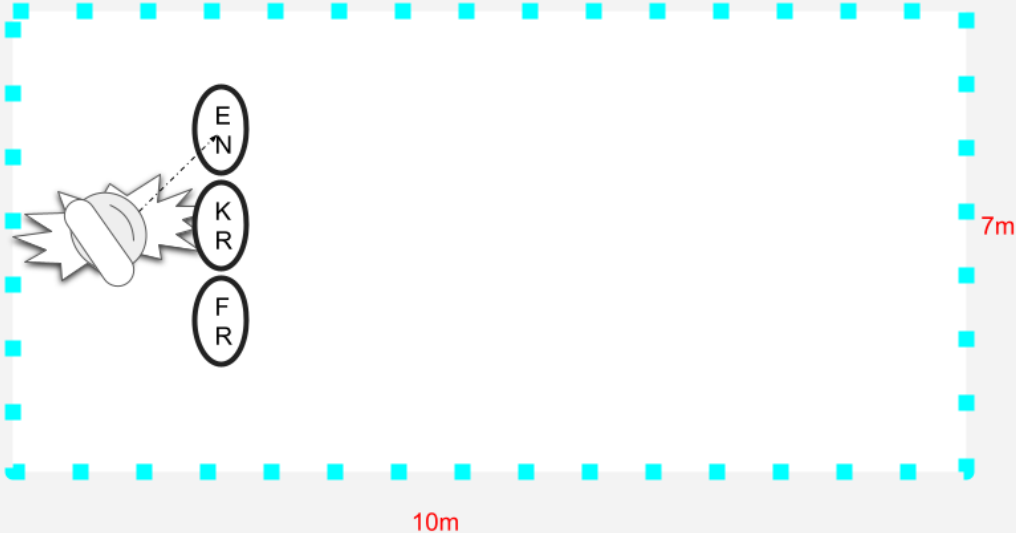
- When the VR headset is not being used (charging or placed on the desk), close the window of the client file from the PC.
  Not used VR headset will enter sleep mode but still connected to server.
  (sleep mode = white halos will be shown in random position) So viewers will be disturbed by white columns in random position.

How to close the window of client file:

1)Staying pressed Alt + click tab shortly (several times as you need) to make a choice of windows which you want to close.
When the window is selected, detach your hand from the keyboard then Alt+F4 to close.

2)if the instructions above do not work,
Ctrl+Shift+Esc for open task manager
Select Kubo
End task

- If Vr Headset couldn't connect to PC via Virtual desktop :
  1)Check wifi 5G from the router is connected in Vr headset.
  2)Restart Virtual Desktop Streamer on PC than try to connect again

- If someone has stuck in total black but the sound is still going, ask them to step back, turn around. Press twice the power button of the VR headset for a short time (not actually hold it down). The VR headset will inevitably wake up.

- If the tracking issues happen, we need to clear out the guardian history.

- Keep only one Facebook account per VR headset.
  If we have 2 Facebook accounts in the same quest, it will ask to draw a pattern with 8 points every time when it wakes up from sleep mode.

- If the server file shows you a parade of text, it means that something is wrong with the server. Please restart the server and relaunch the client file.
  (If it happens while you're showing the experience to the viewer, unfortunately, the viewer will be stuck in the experience. All viewers need to stop and restart their experience from the beginning)

- If the tracking issues persist, please reset your Guardian of Oculus Quest 2 by going to Settings from the toolbar, selecting Guardian from the left menu, and then clearing the Guardian history.