

First of all, you will need to hire a full-time system administrator.

He is obliged:

- know how to build a peer-to-peer LAN, configure it;
- know the structure of the computer and perform maintenance of computers running Windows 10;
- make setup, carry out regular maintenance, troubleshooting, repairing, replacement of components;
- monitoring the health of the system and all equipment.

The equipment

For each player

1. Personal Computer (PC):

- the motherboard must have 8pin power connector,
- processor (CPU) — Intel Core i7 4790 or higher,
- video card (GPU) — GeForce GTX 1070 6 Gb and higher, with HDMI slot,
- RAM 8 Gb and more,
- power supply — 800W or higher,
- there should be 2 USB 2.0 ports and 3 USB 3.0 ports (not 1.0) apart from ports for mouse and keyboard,
- solid state drive SSD 128 GB minimum.

2. Uninterruptible Power Supply (UPS) - Ippon Back Office 600 or similar.

3. Headphones with a microphone — Razer Pro Neon or similar.

4. Operating system — Windows 10 Pro x64.

5. Virtual Reality helmets (depending on the number of players) — HTC Vive or Oculus Rift CV1 + Touch controllers + 1 additional tracking camera, e.g., the Oculus Sensor.

6. Ethernet cord.

7. USB extension cord.

8. Internet connection for driver and system updates. Comfortable speed of the Internet for this purpose about 50 Mbit / s.

Alternatively, you can use the Oculus Ready PC solutions, such as:

- [Alienware Aurora](#)
- [Alienware Area-51](#) (HTC Vive Optimized)
- [Lenovo Ideacentre Y700](#)
- [Falkon Tiki](#)

Note that in some configurations of these models the power supply should be changed to PSU with a capacity of 800 watts, and a hard drive (HDD) to a solid-state drive (SSD), or just add it to the configuration from the start if possible.

For the operator

1. Network Switch. At least an 8-port Gigabit switch is necessary.

2. A basic laptop or a PC with Intel Core i5 CPU or higher, Intel HD 5000 GPU or higher, 4 Gb of RAM or more.

3. Operating system — Windows 10 Pro x64.

4. Mouse.

5. Headphones with a microphone — Razer Pro Neon or similar.
6. Ethernet cord.
7. Constant Internet connection. For the game needs about 3 Mbit / s.

The operator's PC also needs in regular updates. Comfortable speed of the Internet for this purpose about 50 Mbit / s.

Room Requirements

1. **Area:** 30 sq. meters for 6 people or more (in this calculation are 4 sq. meters per player as well as space for the operator and equipment).
2. **Lighting.** You should be able to completely block out all sources of sun and electrical light:
 1. the room should be closed off,
 2. if there is lighting, you should be able to turn it off completely for the duration of the game session.
 3. if there are any windows, they should be covered with thick blinds that don't allow for any direct or scattered bits of light to enter the room.
3. **Temperature.** The room should be cool (using an air conditioner or fan); the optimal temperature is around 18-20 degrees Celsius (64.5 to 68 degrees Fahrenheit).

4. **HTC Helmet sensors (base stations)** - Set these up according to HTC's instructions and at the top corner of each player's zone of motion (area of play).

Oculus Rift CV1 camera. For the Oculus Roomscale, additional Sensor cameras are needed for each player's zone of motion (area of play). One camera comes in the kit with the helmet, another in the kit with the Touch controllers. You will need to buy an additional one because tracking does not perform as well with two as with three. It's worth noting that according to Oculus, this technology is experimental and could experience certain issues.

To set up the Oculus Sensors to track movement within a player's zone of motion (area of play), follow Oculus' instructions in this order:

Part 1: [Oculus Roomscale - tips for setting up a killer vr room](#)

Part 2: [Oculus Roomscale - balancing bandwidth on usb](#)

Part 3: [Oculus Roomscale - identifying host controllers](#)

Part 4: [Oculus Roomscale - extra equipment](#)

5. The cables from the helmets can be organized and carefully mounted above each player's zone of motion (area of play) by using a set of cable mounts/fasteners.

Examples of these systems:

- - [VR Cable Management System for HTC VIVE Virtual Reality Headset](#)
 - [Cable Management System for HTC VIVE](#)
 - [NEW version Retractable Cable Management System](#)
 - [No More Cable Worries](#)

Recommendations for the separation of player's zones (area of play)

For player safety, as well as in the interest of not having players see each other physically due to the helmets, we recommend that you set up and mount different zones (areas of play) to allow for greater player motion (depending on the number of players).

You can create and use racking aluminum or chrome plated pipes for structures based on Joker and Uno systems. Or any other materials. Just build barriers at the belt level of the players or in full growth. As you wish.

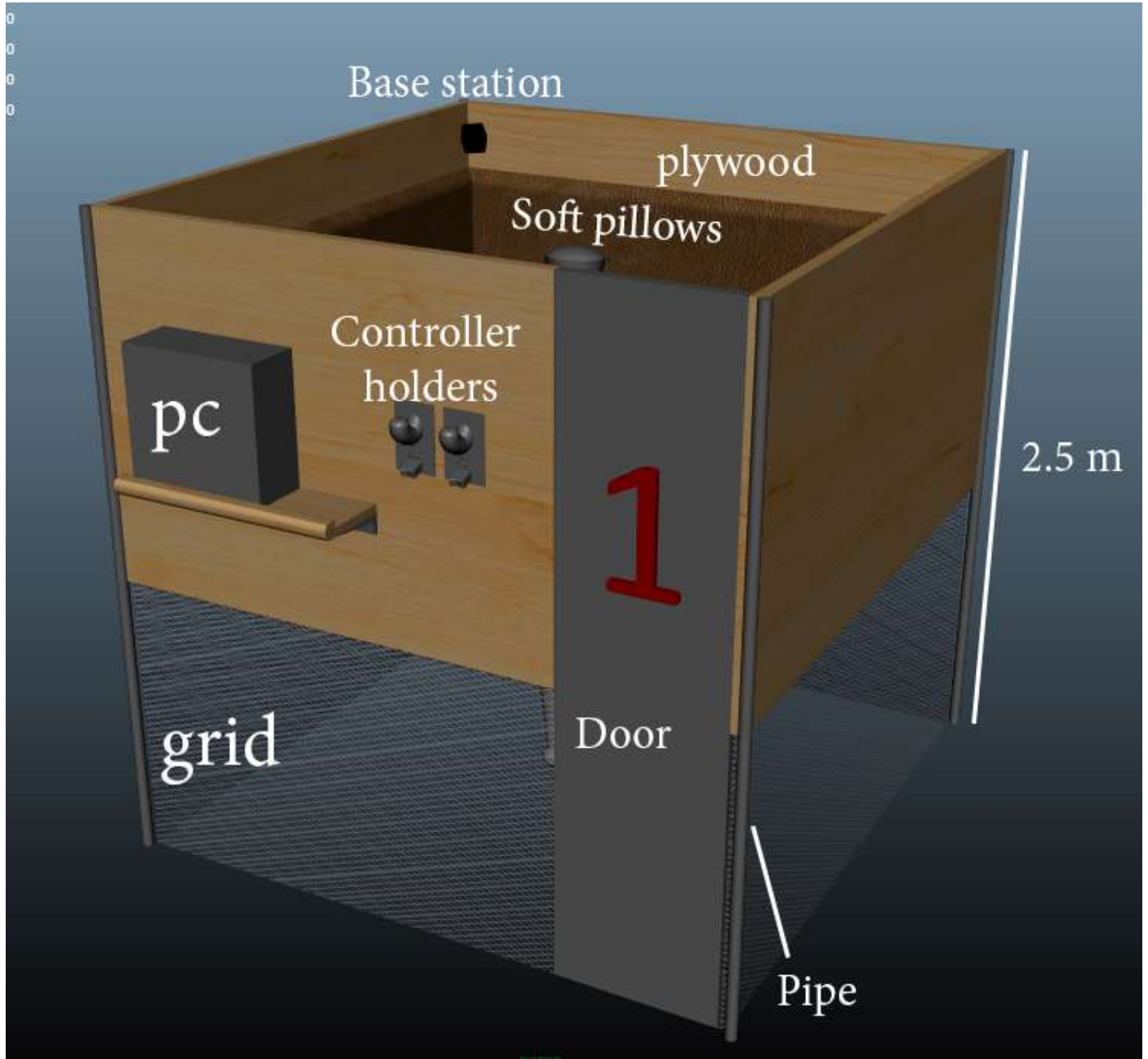




Materials can be bought on the Internet:

- [25 mm tee connector etc](#)
- [Aluminum alloy 25mm round steel pipe joint](#)
- [supermarket hardware pipe fitting round tube connector](#)
- [2 Ways metal round 25mm pipe joint & uno joker](#)
- [25mm Aluminum Tube Clamps JOKER UNO Metal Pipe Joint for Rack System \(DG0610\)](#)
- [4 Way JOKER UNO Metal Pipe Joint for Rack System \(DG0610\)](#)

Also you can completely isolate the players' playing areas from each other.



Using four strong supports, assemble the walls to go from chest to head-level height (this is about 120 cm to 250 cm or 4 ft to 8 ft.) Make sure you leave enough room for the door. On the inside of the walls install a light trim. The HTC's base stations or Oculus' cameras should be set accordingly in the upper, opposite corners of the room, as per the helmet manufacturers' instructions. For convenience, allow some space for the computer tower as well as a place to store the controllers; the base of the room can be sealed off using a type of protective netting or mesh.

This room setup is just the recommended one. You do not have to follow this strongly. If you want, you can think up and arrange your own player zones (area of play), bearing in mind the particular aspects your room, its design, the overall approach, framework, etc.