Step-by-step manual
on how to install and play games
using the software

VION
DEMO

Version 1.0.0 from 11.11.2024

Table of contents

This instruction describes the sequence of installation of the demonstrational version of the Vion software for the Meta Quest 3 virtual reality set on the equipment and its further use.

The procedure in this manual is described for setting up one set of headset. If there are several headsets, the initial settings should be performed with all headsets in turn.

The latest versions of the instructions can be obtained on the website https://vion-vr.com/support/manuals.

1. Necessary equipment

The following equipment is required for the demo game:

Virtual Reality Headset
Meta Quest 3 or higher (from 2 pcs.)*

Personal computer or laptop with Windows 10 or higher

Wi-Fi router

Cell phone or tablet and a USB cable

* – It is recommended to test with two headsets, but if you have only one headset you can against bot in the PVE map section

1.1. VR-headset

Each headset Meta Quest 3 consists of a helmet and two controllers that allow players to play games in a virtual space against each other or against characters built into the scenario (bots/mobs PvE).

The simplest version with 128 Gb of internal storage will be suitable for testing.

Purchase options on different platforms:

Ebay   Amazon   Walmart

1.2. Control computer-server

Meta Quest Developer Hub programs are installed on the computer to turn on the developer mode, and the Vion server program, which selects the scenario, configures the kits and controls the game.

Minimum system requirements:

- Operating system: Windows 10;
- Processor: i7
- rtx 3060+
- RAM: 16+;
- Hard drive type: SSD 200+;
- Availability of Bluetooth adapter.

Examples of suitable hardware:

MSI Pulse GL66   Lenovo Legion 5

If you already have a computer or laptop, in order to check whether it is suitable for work, you need to check its characteristics with the specifications above.

You can view the specifications of your computer by clicking Start -> Options -> System -> About.

You can check your computer's performance by following these steps:

1) Click the Start button.

2) Select Options.

3) In the Options window, select System.

4) Click the About tab.

1.3.   Router

The router provides Wi-Fi communication between the VR helmet and the computer device to control the game and transmit visual and statistical information. In order to avoid game freezes, you need a router with high data transfer speed.

Minimum technical requirements:

- 23 dBm transmitter output power;
- Wi-Fi 5 standard (802.11ac);
- WAN speed of 1 Gbps;
- Frequency - 2.4 GHz, 5 GHz;
- Wi-Fi speed 5G – 867+ Mbps;
- Wi-Fi speed 2.4G – 300 Mbps;
- Supported protocols IPv4, IPv6.

Examples of suitable hardware:

Ubiquiti UniFi   TP-Link Archer AX6000   ASUS RT-AX55 (AX1800) Dual
Dream Machine   WiFi 6 Router   Band WiFi 6

If you already have a router, you should check its specifications against the characteristics above to see if it is suitable for the game. The specifications of the router are located on a sticker on the mounting side of the router.

To connect the headset to the server computer, both devices must be connected to the same password-protected Wi-Fi network, which must not be used by other devices. Internet connection is mandatory during the game.

1.4. Cell phone or tablet

When turning on the Meta Quest headset for the first time, you will need a cell phone or tablet. Otherwise it will be impossible to complete the initial registration of the headset and bind it to your Meta account. Both Android and IOS devices are suitable for this process.

Minimum technical requirements:

Mobile device (smartphone, tablet with Apple iOS 10, Android 7.0 or later operating systems).

Examples of suitable hardware:

Android   IPhone   IPad

1.5. USB cable

A USB Type C to USB cable is required to set up the headset via Meta Quest Developer Hub and install the Vion app.

A type C - type C cable comes with the headset by default.

If your computer does not have a type C port or the cable is not available, you can use a type A - type C cable.

Examples of suitable hardware:

TypeA-typeC cable   TypeC-typeC cable

2. Room requirements

Room requirements recommended for the game are described in section 2.1.

It is also allowed to test the game at home. Actions to be performed to prepare the apartment are described in section 2.2.

2.1. Recommended space requirements for testing

A minimum of 20 m² per player is required for the best gaming experience. Supplied virtual playground maps are designed for rooms measuring 16x8 or 16x12 m. To ensure the safe movement of users during the game, it is necessary that there are no interior partitions, furniture or columns in the area.

If it is not possible to provide a room without columns during demonstration use of the equipment, due to the fact that the virtual map will not be tied to the real environment, it is recommended to cover obstacles with soft material and at the same time to constantly monitor the movement of users during the game.

The walls should be with a matte surface, painted in dark colors. To improve the positioning of VR devices, it is recommended to use self-adhesive tapes or wear-resistant paint in a contrasting color to apply geometric patterns (a file with the recommended markings is provided by the company).

The floor should be flat, with no elevations or pits. The floor covering should not slip and generate static electricity and reflect light. Geometric patterns, like those on the walls, should be applied to the floor as well.

The room for VR games should be enclosed, with no natural light entering the area. Windows should be covered with a thick cloth or film.

Artificial lighting should be placed on the ceiling only, be uniform throughout the gaming area and exclude harsh shadows and glare.

🛈 **Non-compliance with the above requirements may lead to unstable headset calibration, but when testing the software, with maximum control of the players' movement on the playground, it should not hinder the assessment of the capabilities of the applications installed on the equipment.**

It is also important to consider other facility requirements that may be imposed by local fire and other inspections. These requirements may vary according to each region and facility.

2.2. Minimum space requirements for home testing

If a separate room is not available and testing can only be done at home, prepare the home as follows:

1. Choose the largest room and make sure it has a good Internet connection;

2. Remove all possible obstacles (furniture) so that there is as much free space in the game zone as possible.

3. Calculate the maximum area for testing (recommended area is 8x8 meters).

4. Cover the windows with curtains or blinds to prevent natural light from entering the room.

Appropriate location	Inappropriate location
Sufficient free space	Not enough space in the room

Room without obstacles | Room with columns and obstacles

Uniform lighting on the ceiling, no sunlight | Weak, uneven, neon lighting

Appropriate location	**Inappropriate location**
Contrasting floor with pattern or rug	Mirrored, monochrome floor

High contrast walls and floor	Neon lights on walls and ceiling
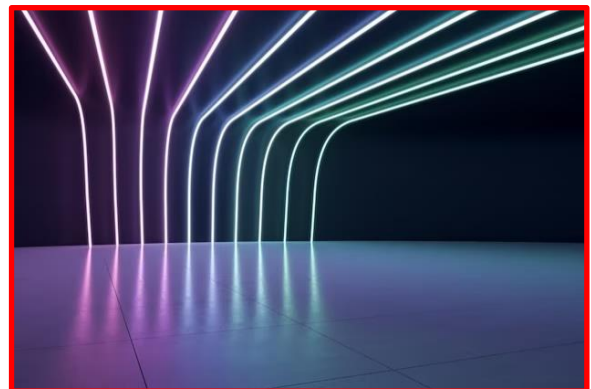
3. Headset device Meta Quest 3

Before using, carefully read the instructions provided with the device.

The VR headset kit consists of a helmet and two controllers.

Tracking camera · Tracking camera · Depth sensor · Tracking camera · USB Type-C connector for connection to a charger/computer · External headphone jack · Volume control · Lens distance adjustment wheel · Connectors for connecting to a charging station · Tracking camera · On/off button · Button «X» · Button «Y» · Button «B» · Button «A» · Joystick · Button «Oculus» · Left controller · Right controller
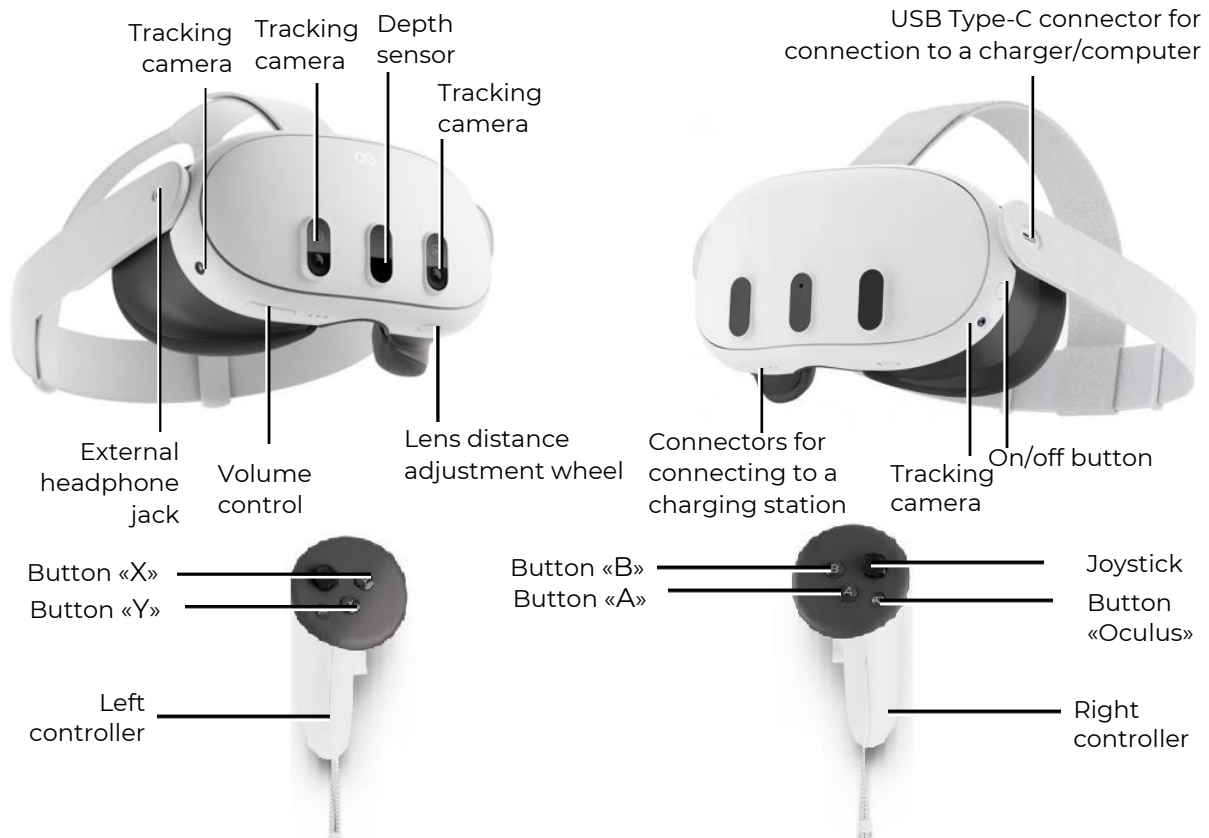
General view of the VR-helmet and controllers

4. Safety precautions

4.1   Before using the Virtual Reality helmet, carefully read and follow all the setup and operating instructions provided with the helmet.

4.2   The Virtual Reality helmet is not intended for use by children under the age of 13, as young children are at a critical age for the development of the visual system and vestibular apparatus.

4.3   If the player is at an advanced age, has binocular vision disorders or psychiatric disorders, or has heart disease or other serious illnesses, he is advised to consult a physician before using a VR helmet.

4.4   A consultation with a doctor is also required for pregnant women.

4.5   The VR helmet contains magnets and emits radio waves which can affect the operating of cardiac pacemakers, hearing aid and defibrillators placed near the helm. If the player has a pacemaker or other implanted medical device, it is not recommended to use the VR headset without first consulting the player's attending physician or the manufacturer of the medical device used by the player.

4.6   Do not use the virtual reality helmet for players who are tired or sleepy, under the influence of alcohol or drugs, or who experience any kind of ailment.

4.7   Using a virtual reality helmet can cause a loss of balance. It should be remembered that objects that are projected in virtual reality do not really exist, so players must not sit on them or lean on them.

4.8   There is a possibility of injury in case of collision with other players, walls, furniture or other objects – this should be paid special attention.

4.9   Only the supplied power adapter should be used to charge the VR helmet.

4.10   In order to prevent the transmission of infectious diseases, the helmet (in particular the lens) must be treated with special antibacterial wipes before each use.

4.11   Do not leave the VR helmet in direct sunlight - it may damage the device.

4.12   Do not use the device if any parts are defective or damaged.

For more information on game safety guidelines, please visit the manufacturer's website.

5. Required software

5.1. Meta Quest application

It is necessary to download and install the Meta Quest application on a cell phone (smartphone, tablet with Apple iOS 10, Android 7.0 or later versions).

For Android system - available in the Play Market application at the following address.

For Apple iOS system - available in the App Store at the following address.

The application is also available for download on the website (download software for QUEST 3).

The process of linking the headset to the Meta Quest application is described in section 9.

5.2. Meta Quest Developer Hub program

For a detailed introduction to the app installation process, watch the video tutorial by following this link or scanning the QR code.

To install the Meta Quest Developer Hub program on the server computer, you need to:

1) Navigate to the following address.

2) On the page that opens, find and press the DOWNLOAD button.
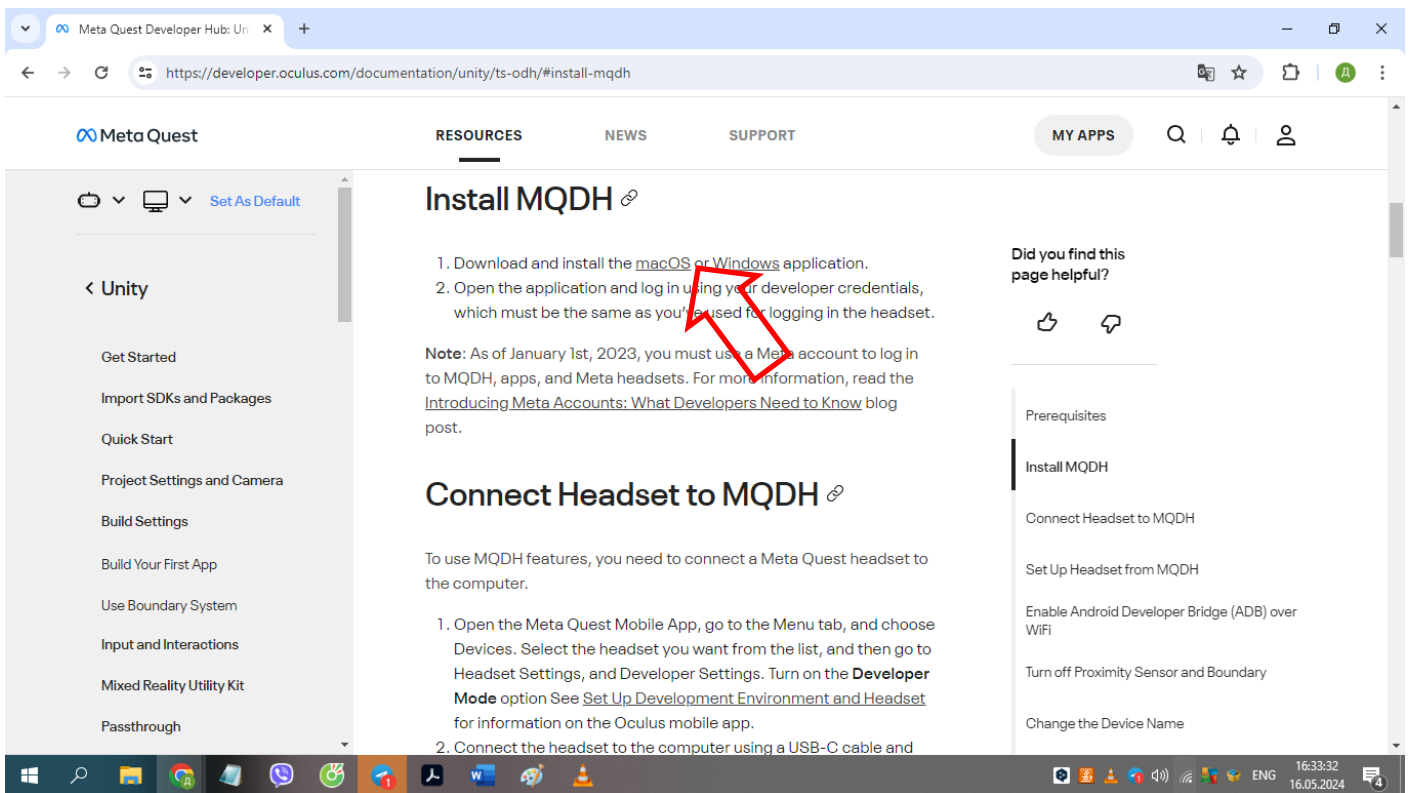
3) In the window that opens, accept the license terms by checking the box and click "Download".
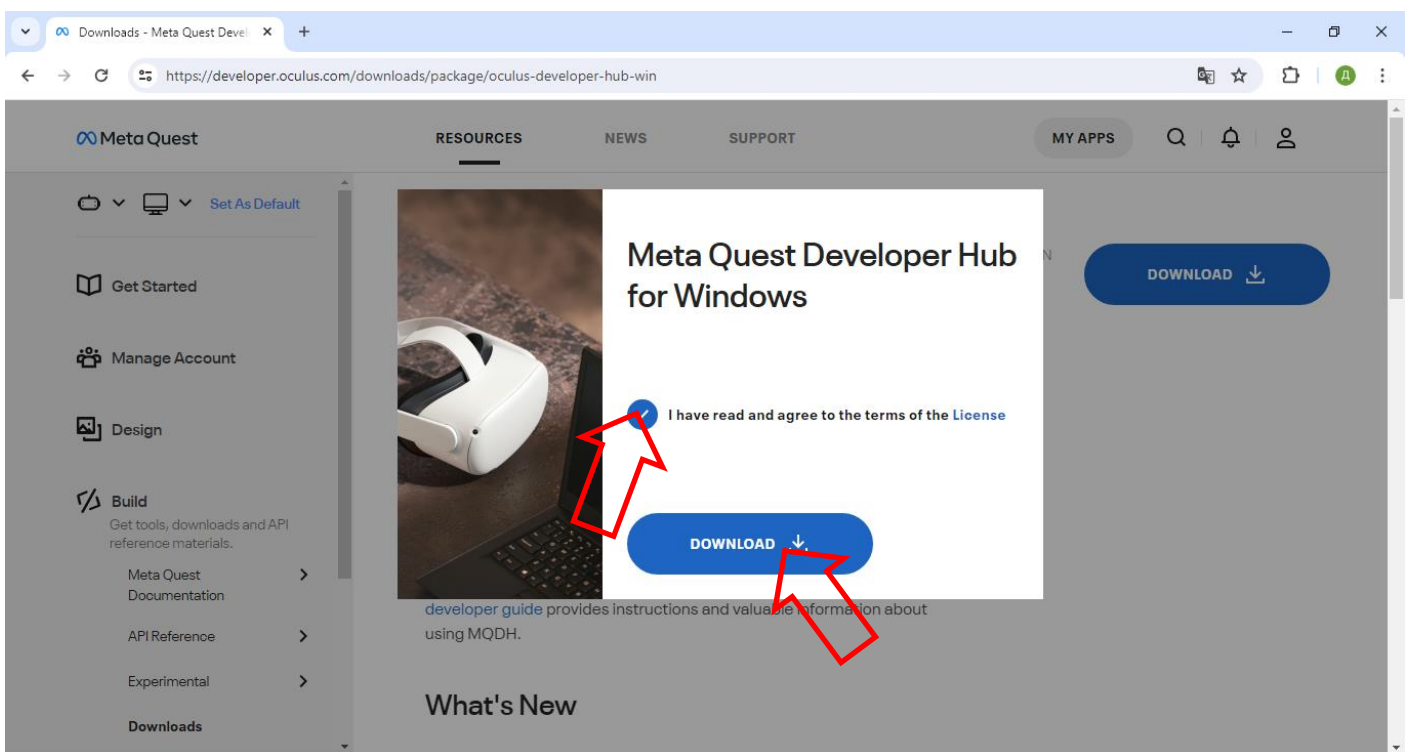
4) Unpack the archive and install the program - run the Meta-Quest-Developer-Hub.exe file.

The process of setting up the headset using the Meta Quest Developer Hub program is described in Section 10.

5.3. Vion software

Use the link provided by the company to download the Demo Quest 3 Controllers archive. Extract the Demo_Ser folder from the archive.

Create a link to the Vion application on the desktop. To do this, left-click on the name of the Vion program, select Send -> Desktop (Create shortcut) from the context menu.
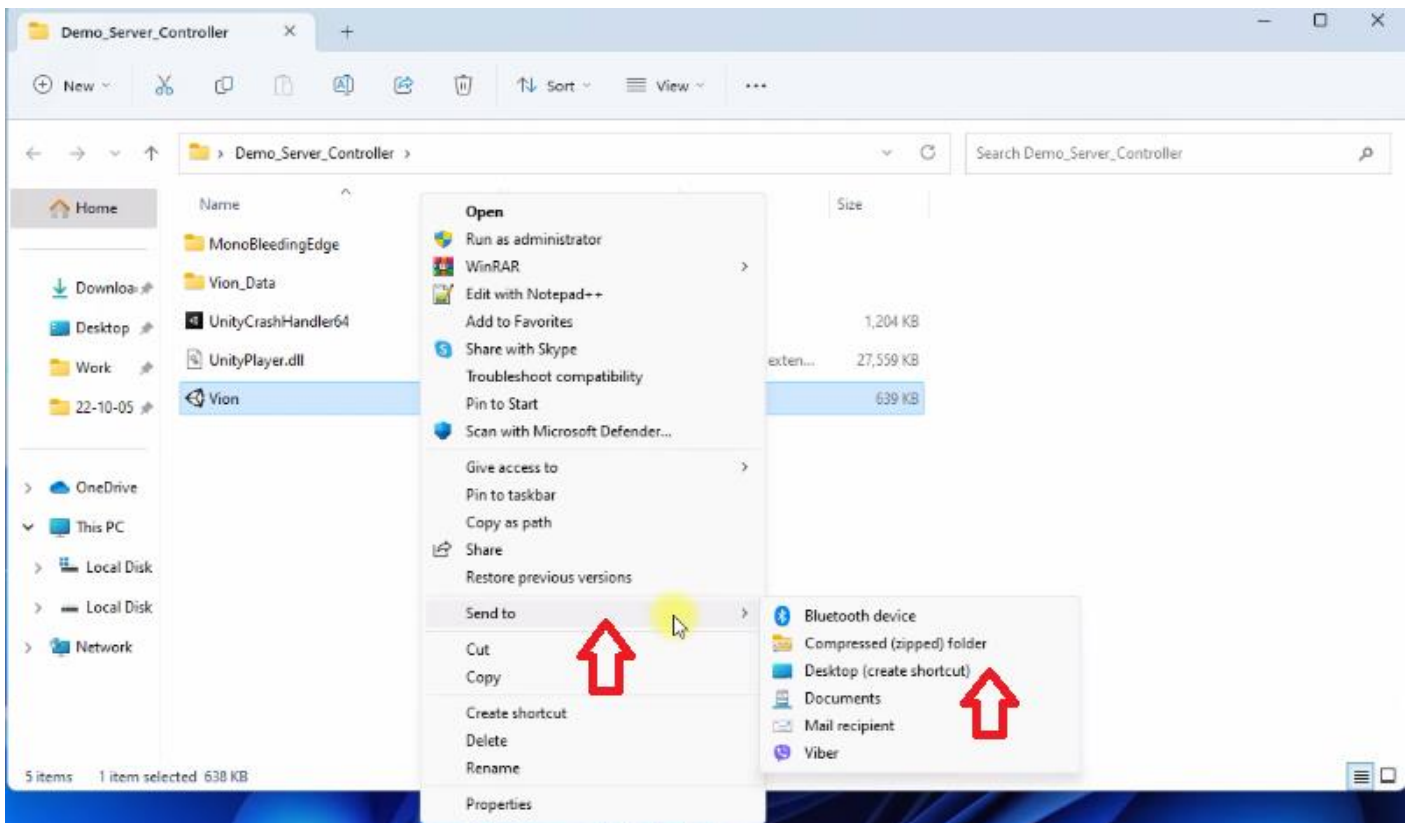
5.4. Vion software

Unzip the Demo Quest 3 Controllers folder from the Vion_Demo_Controller archive. Save the installation file of the Vion_Demo_Q3.apk headset application to your hard disk drive.

Note: we strongly recommend not to use any other applications than Vion!

6. Developer account registration

To simplify account registration, watch the video tutorial at this link. You can also scan the QR code for quick access.

6.1. Meta account registration

A video tutorial of the account registration process can be found at this link.

To create an account you need to:

1) Go to the website.

2) In the upper right corner of the window click on the icon 👤 .

3) In the window that opens, select "Sign up or log into Meta account".

4) You can create an account using your Facebook, Instagram or email account. You can use existing accounts. Select the "Continue with Facebook" option. Enter your account login and password.
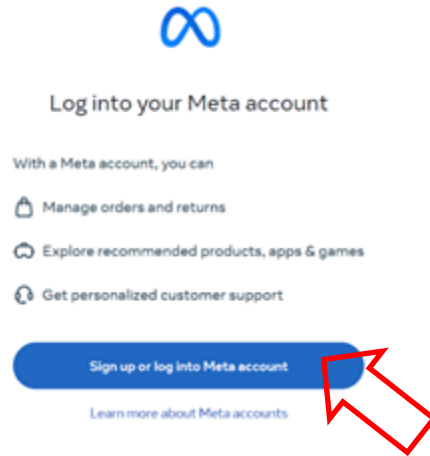
5) Confirm access to your Facebook account.

6) In the window that opens, click "Create new account".
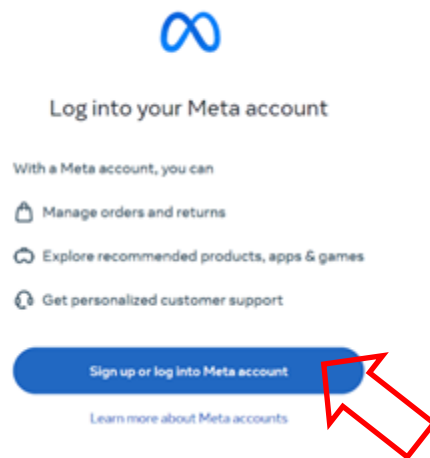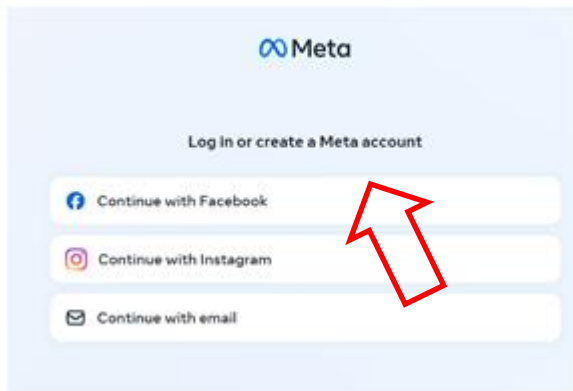
7) Press "Yes, continue" to confirm.

8) In the window that opens, enter your e-mail address and click "Next".

9) Check if the data that was synchronized from your account is correct, click "Create account".
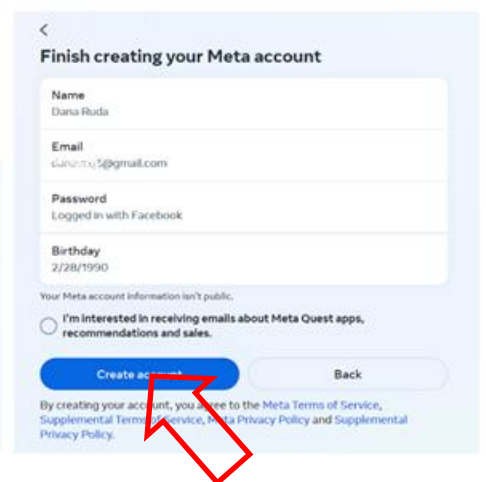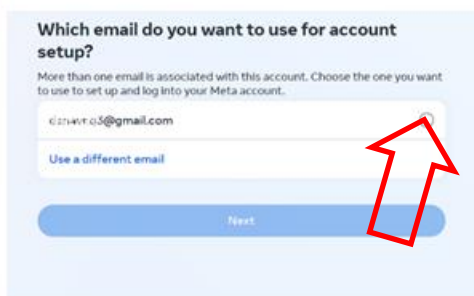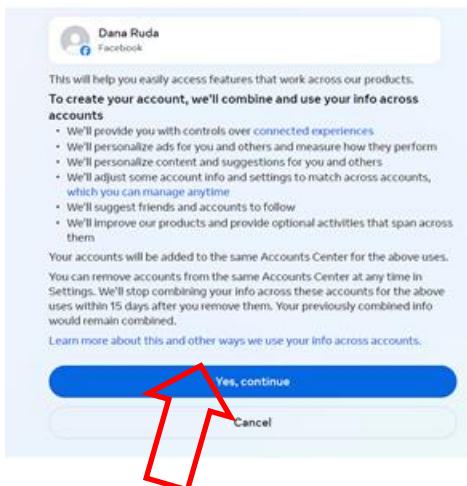
6.2. Meta Horison profile registration

To create a profile you need to:

1) Go to the [Oculus Meta Horizon website](#) and click the profile icon in the top right corner of the screen:
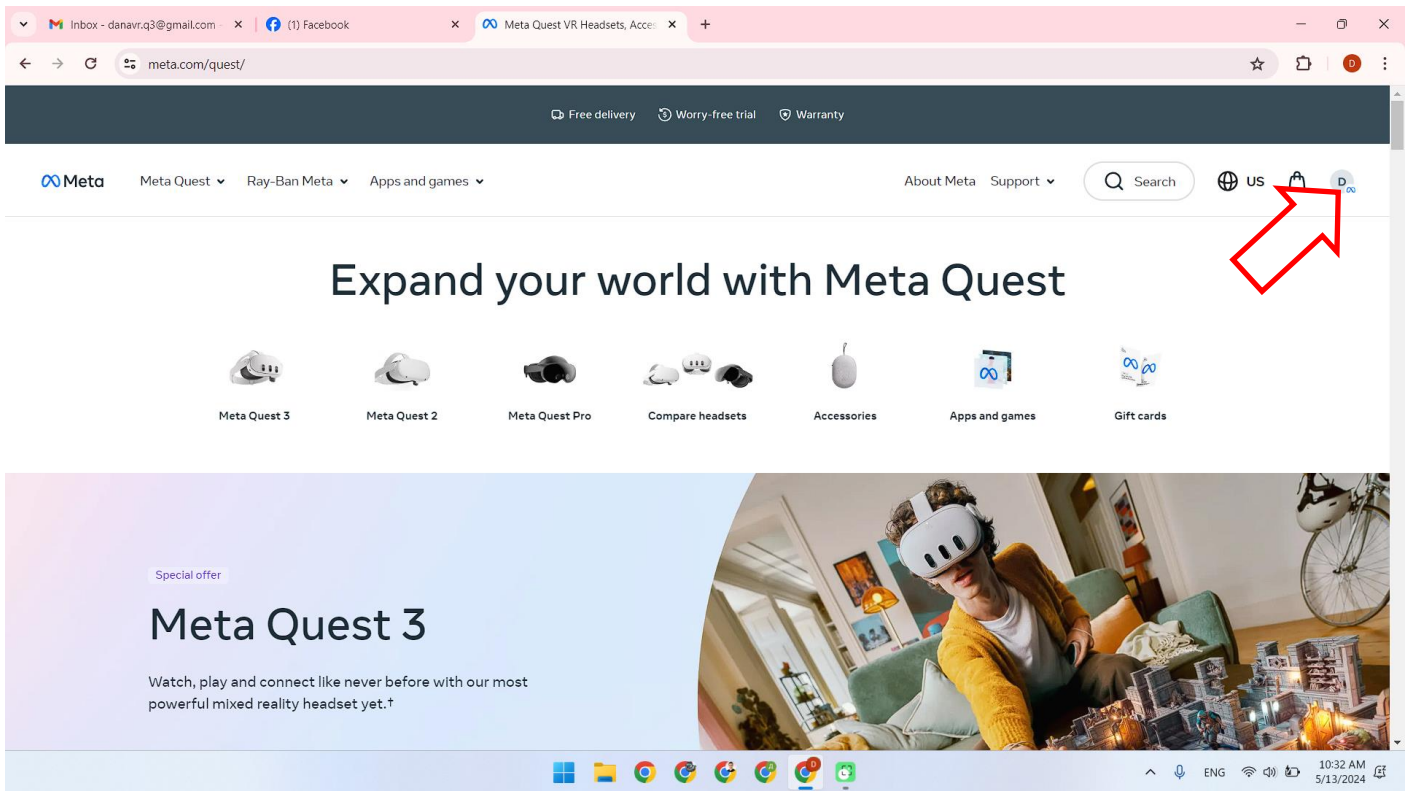
2) Follow the link located in the "Meta Horizon profile settings" section.
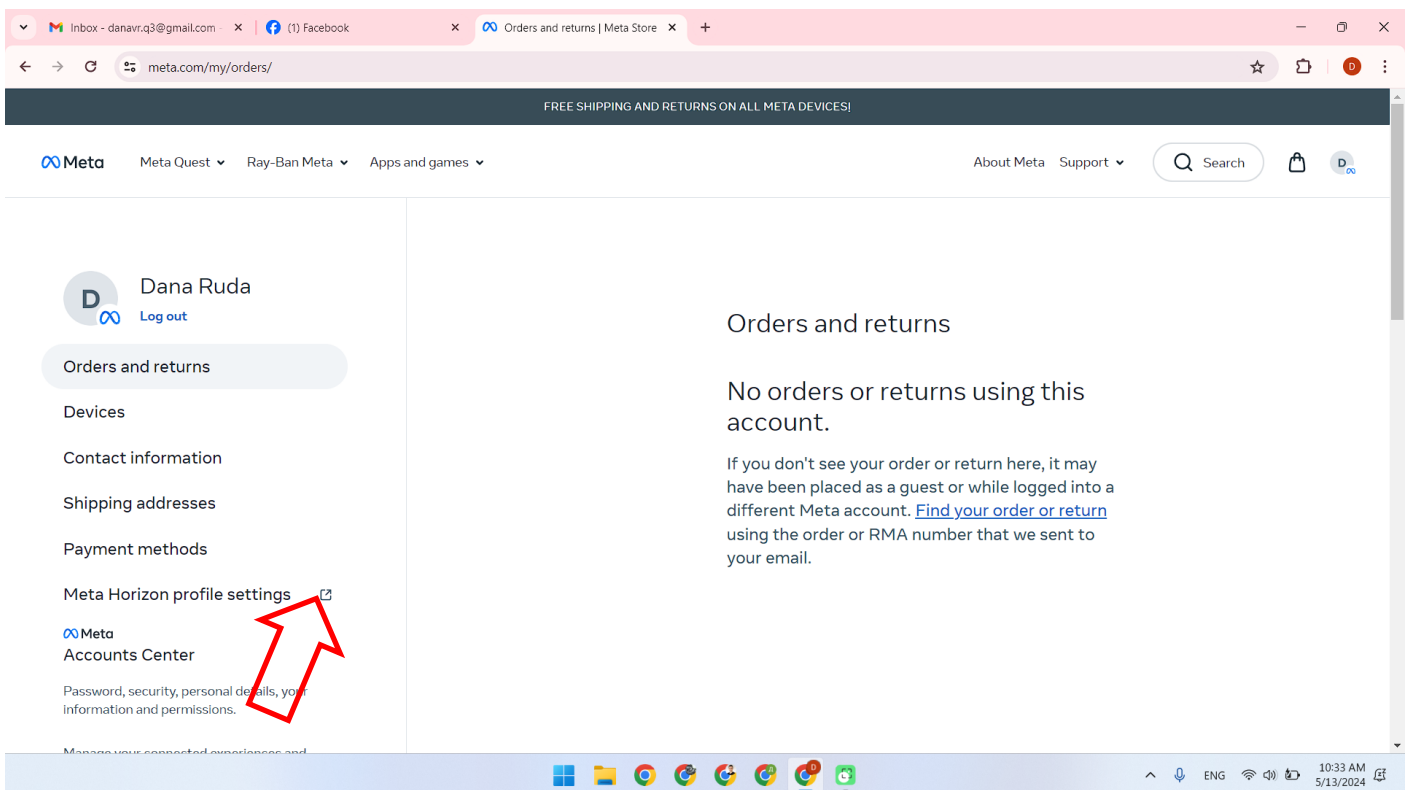
3) Click "Next" to create a profile.

4) Choose a profile name and click "Done".
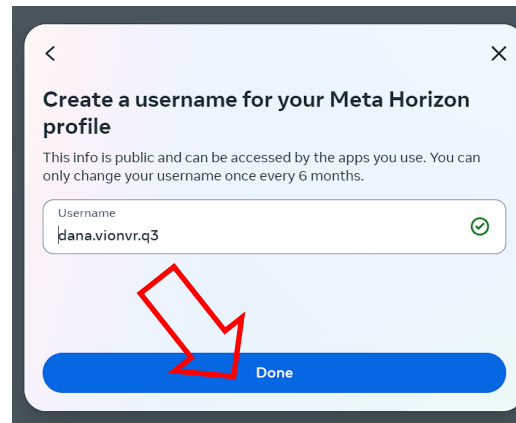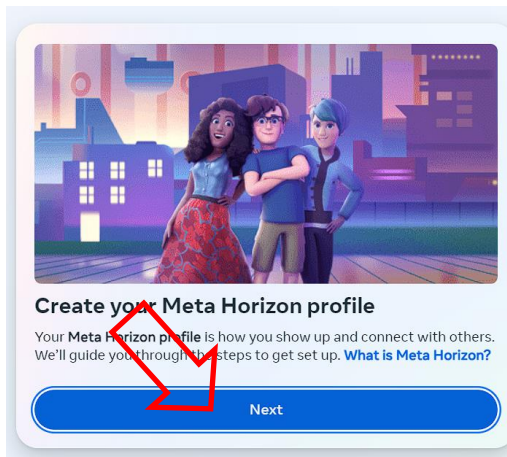
5) To synchronize data from Facebook to your Meta Horizon profile, click on "Sync profile info".

6) In the "Username" field enter the profile name and click "Done".
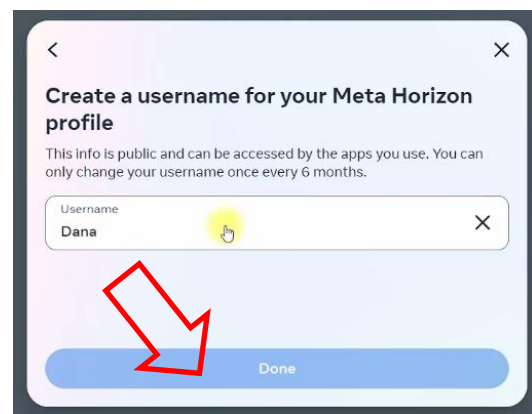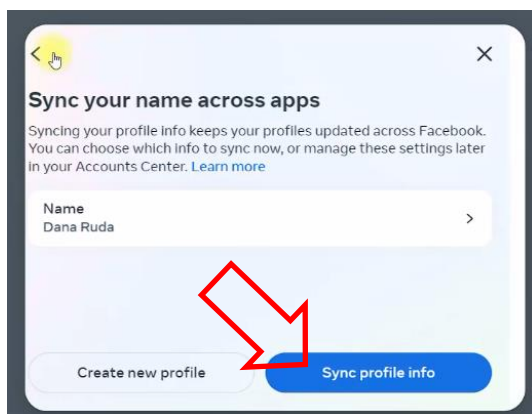
7) Optionally, you can add a profile photo or skip this step.

8) Press "Next" to log in to your account and complete the registration.

9) Select Solo mode or any other mode that suits you and click "Review".
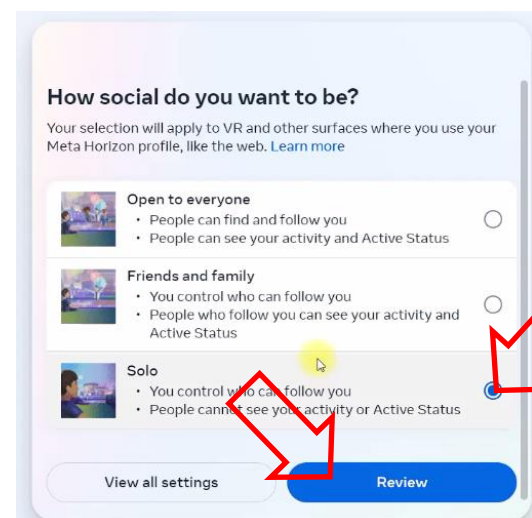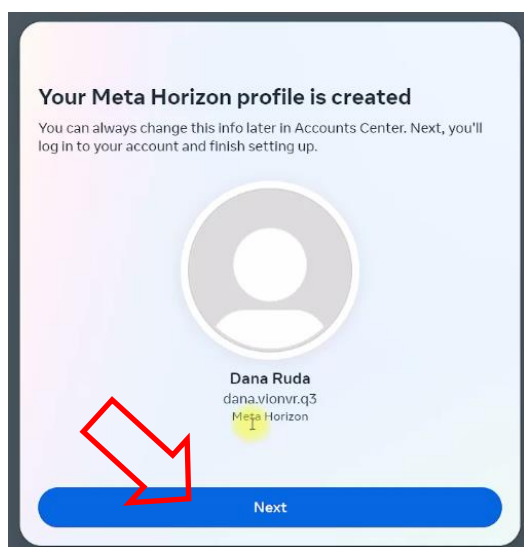
10) In the "Review your settings" window, click "Accept and continue".

11) To finish setting up your account, click "Finish" in the window that opens.
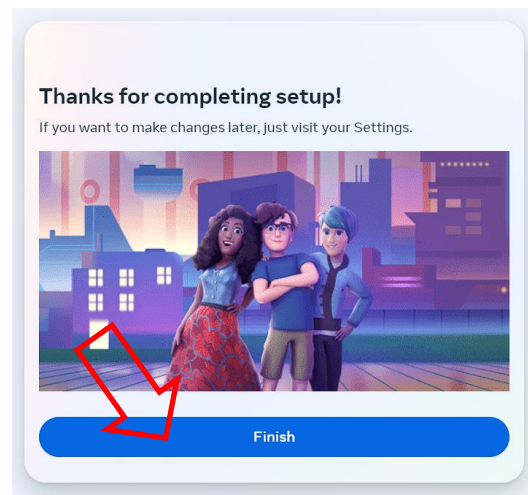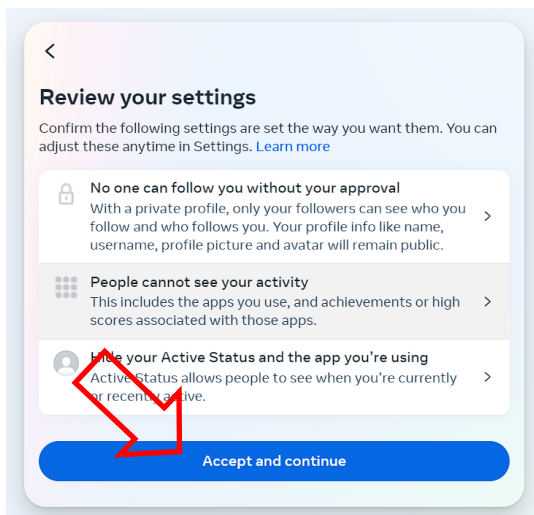
12) Next, a message appears on the screen with a list of actions that can be configured in the "Account Center".
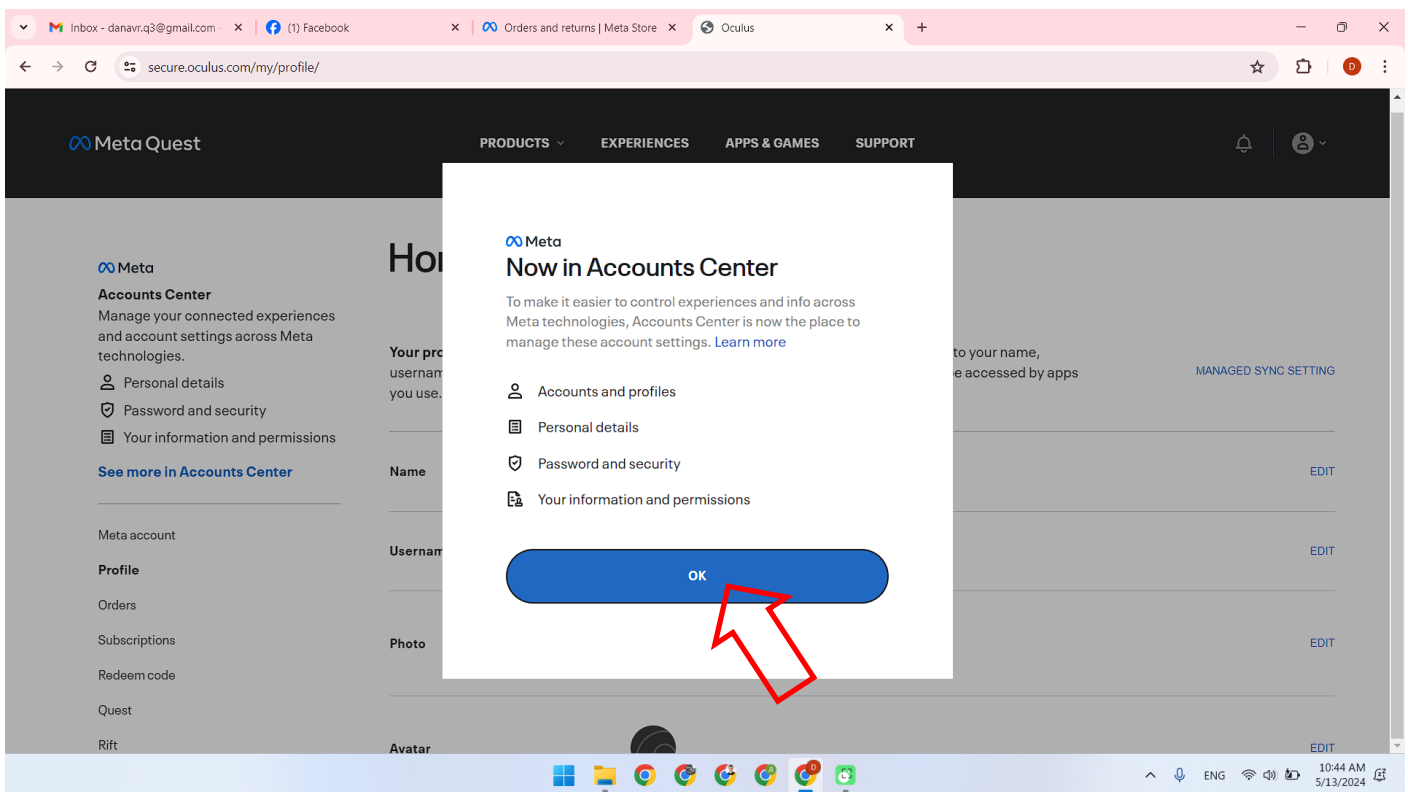
13) After that, you can go to your profile on the website and continue the registration of profile settings, namely - think up or enter the existing security pin code and add a payment method.

14) To enter the pin code, go to the the "Payment methods" or "PIN" menu and enter the security code, and click "SAVE". The website may ask you to confirm the pin-code via e-mail.
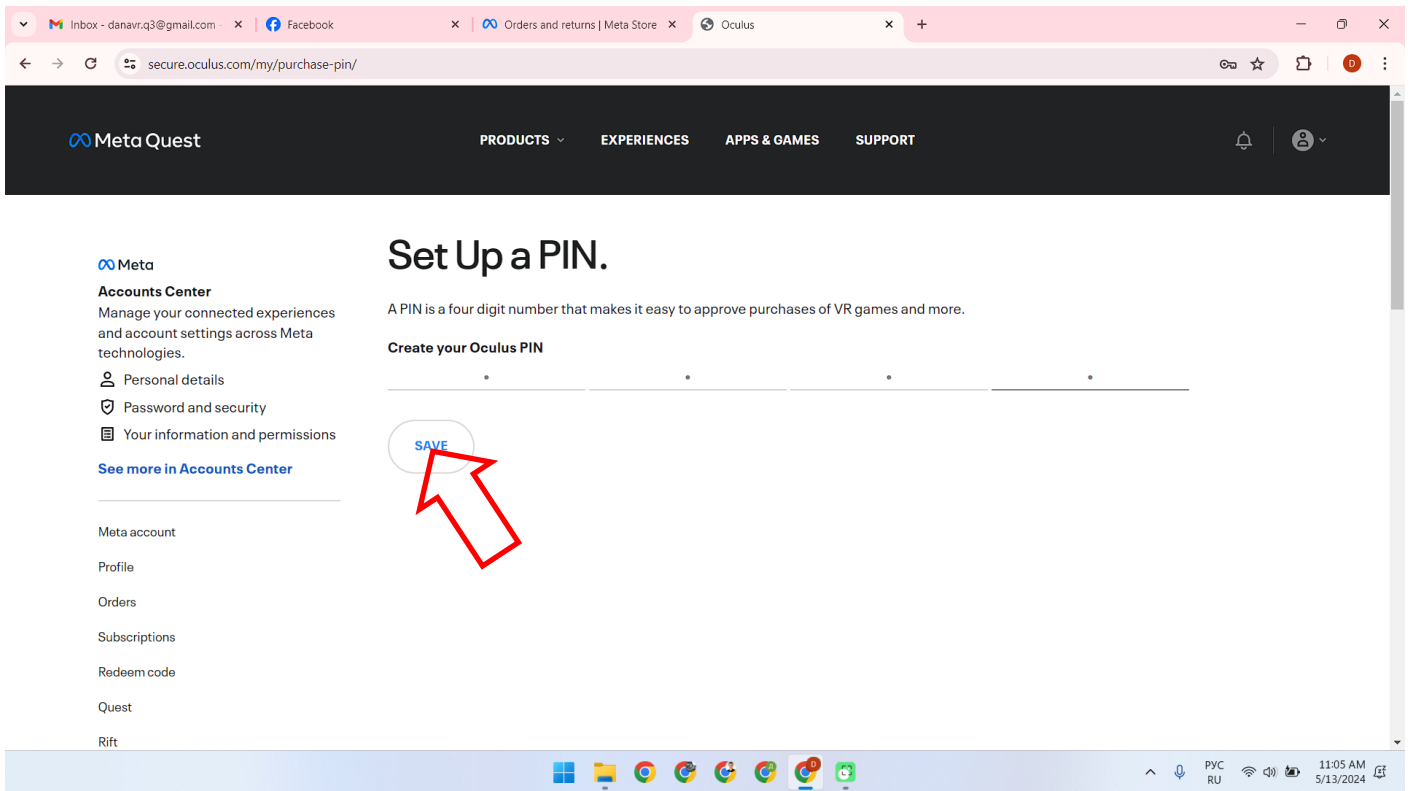
15) Choose one of the payment methods via the Payment methods menu. Debit card, credit card or PayPal payment is available.
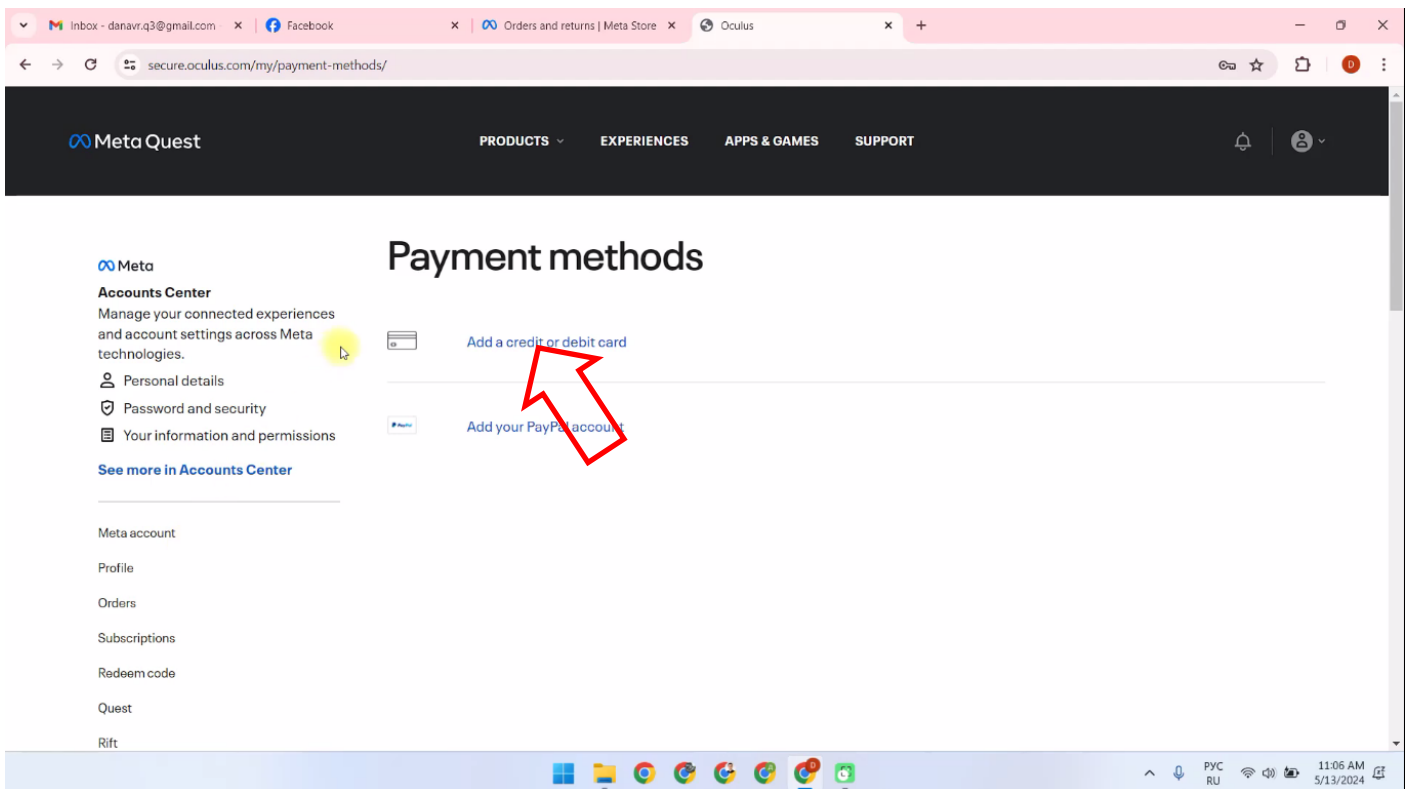
16) When selecting debit/credit card - enter the data on the bank card in the appropriate fields and click "Add card" to continue.
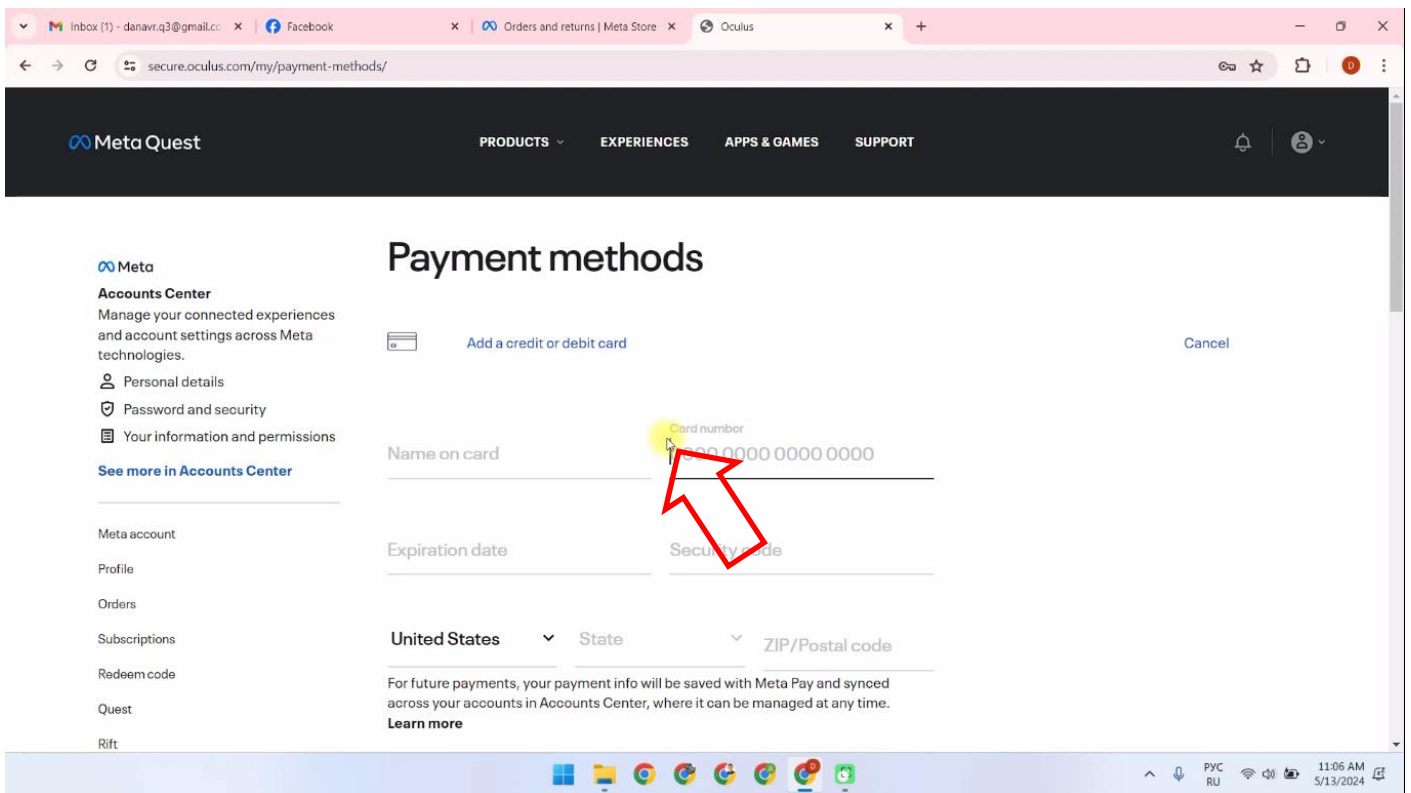
Attention: There should be at least 1$ on the account, which will be deducted when linking the card to the account, and then returned back to the card.

7. Initial headset configuration

If the virtual reality headset has already been used and passed the registration and setup procedure, go to chapter 10.

🛈 **All further actions to enable the developer mode on the headset must be performed from the same Facebook account as when the device is initially configured.**

If you are using the headset for the first time, after unpacking it, you must follow the device setup instructions shown on the helmet screen, including joining the same network with internet access that your mobile device is connected to.

8. Binding the headset to the Meta Quest application

The procedure for linking the headset can be found in the corresponding part of the video tutorial at this link. For convenient access, scan the QR code:
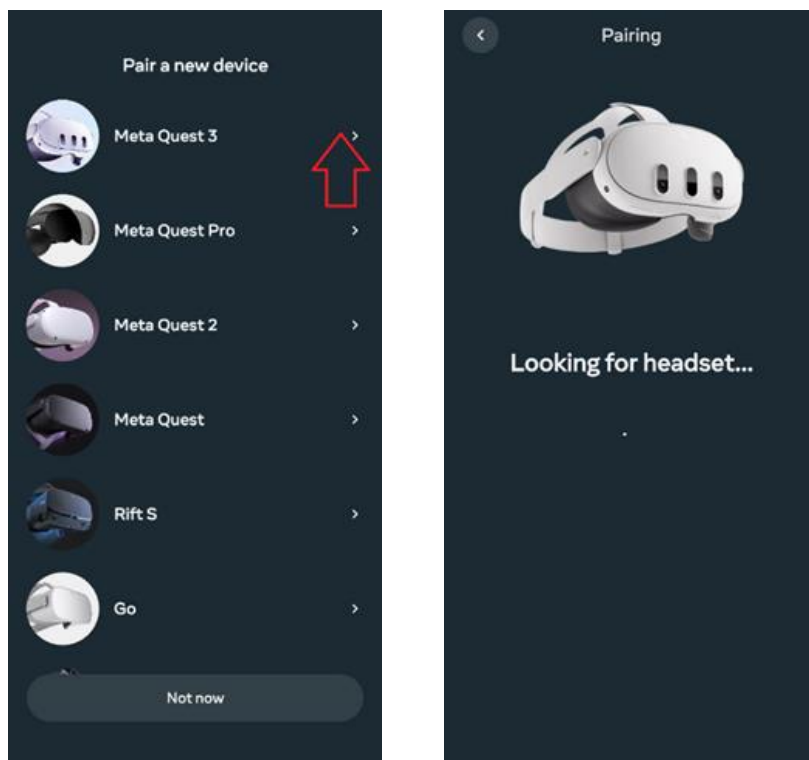
After updating the firmware, you will need to pair the headset with the Meta Quest mobile app:

1) Launch the app and sign in to the Meta Quest system through your Facebook account.

2) In the "Pair a new device" window, click "Continue".
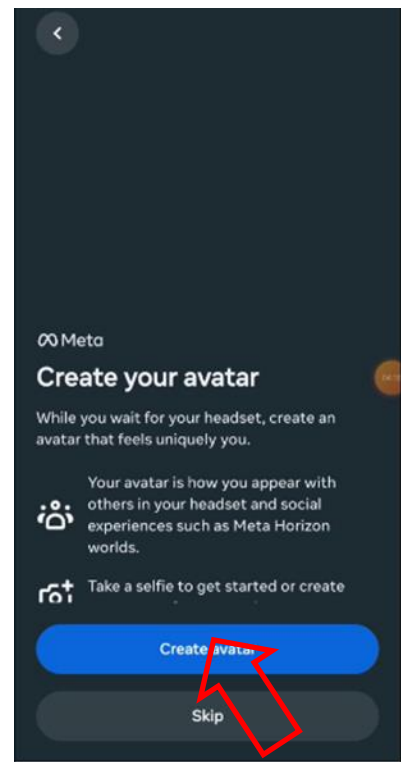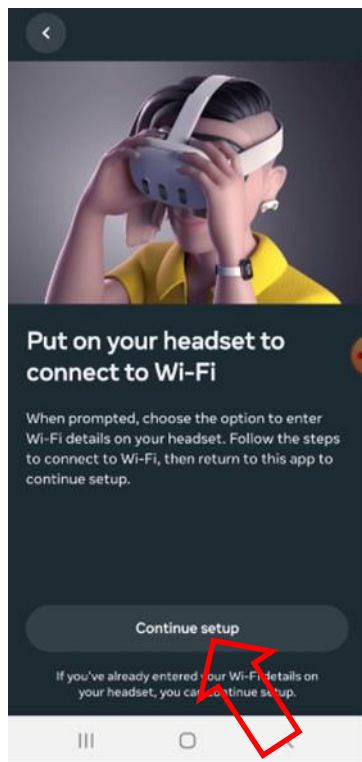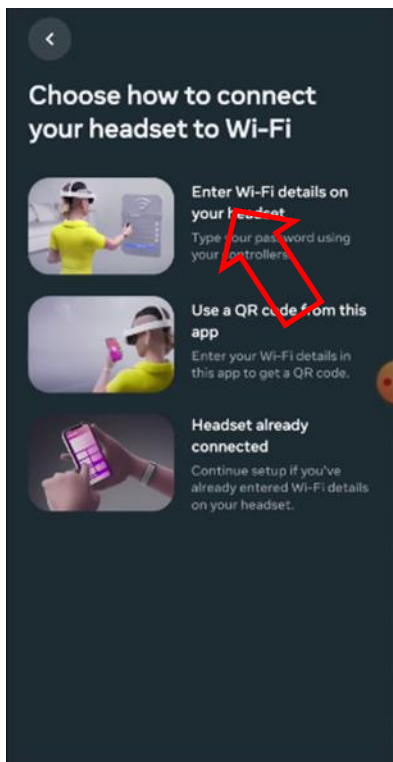
3) Give permission to use geolocation.
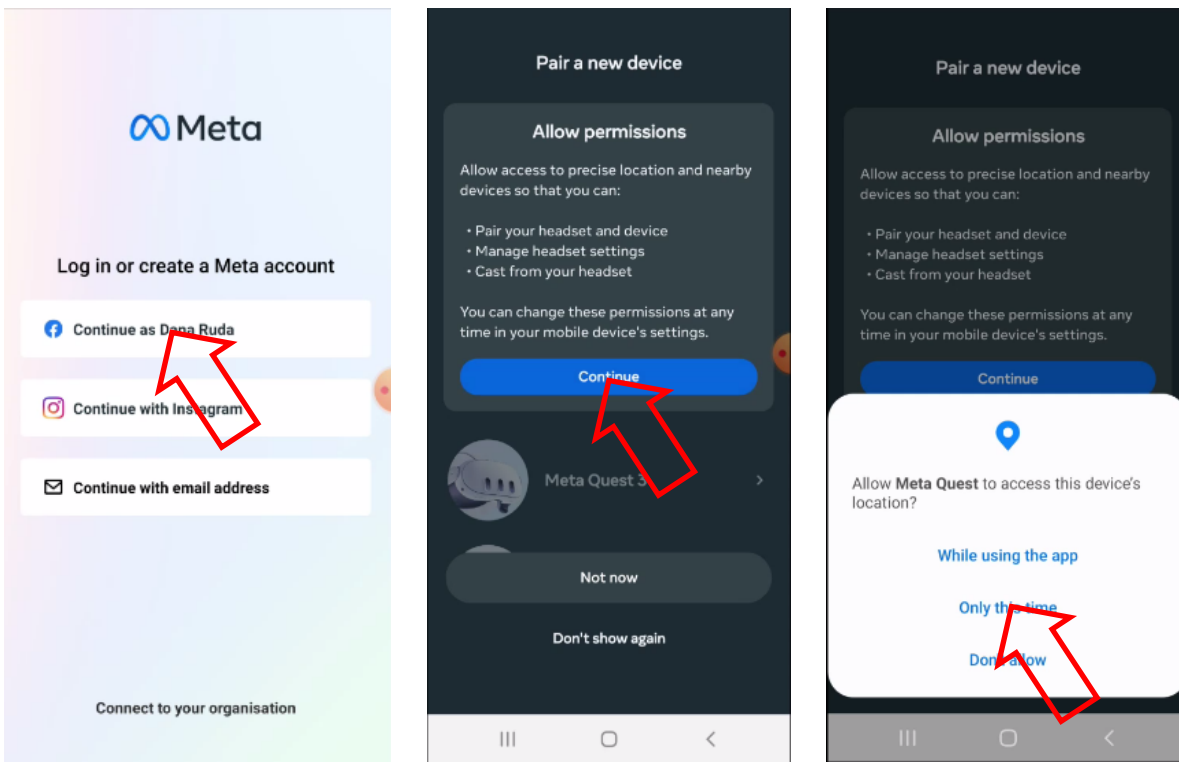
4)   Select the headset model (Quest 3) from the list of devices and connect to it.

5)   Choose a method to connect the headset to the Wi-Fi network.

6)   Put on the headset and follow the prompts to complete the setup.

7)   The step to add an avatar can be skipped.

8) Update the headset's software and wait for it to restart.

9) To pair the headset with the app, enter the 5-digit code displayed on the headset screen.
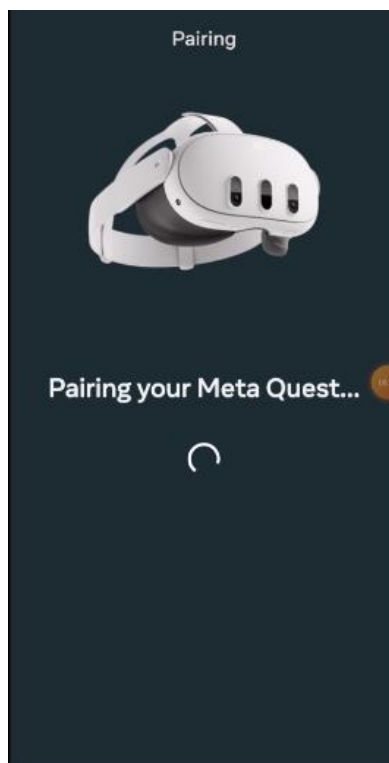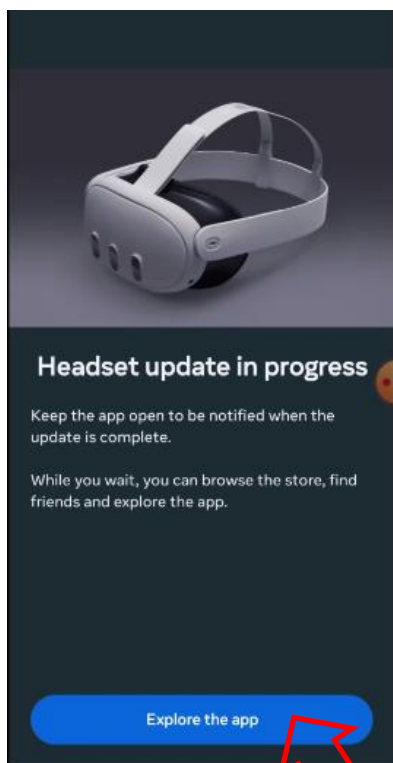

10) Accept all prompts offered by the app.
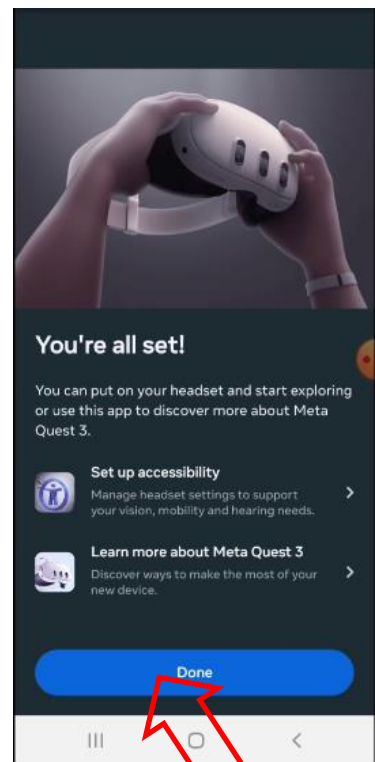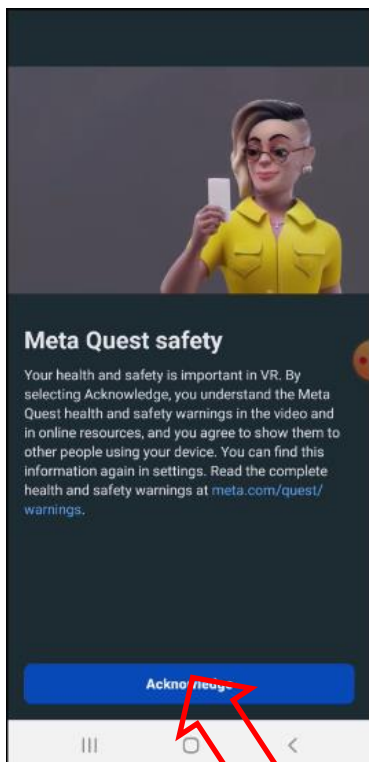
9. Account verification in the Meta Quest Developer Hub (MQDH) program

The sequence of steps is as follows:

1) Open the Meta Quest Developer Hub program.

2) Click "Continue" to proceed.

3) Log in by clicking "Log in with a Meta account". The registration page will open in the browser.
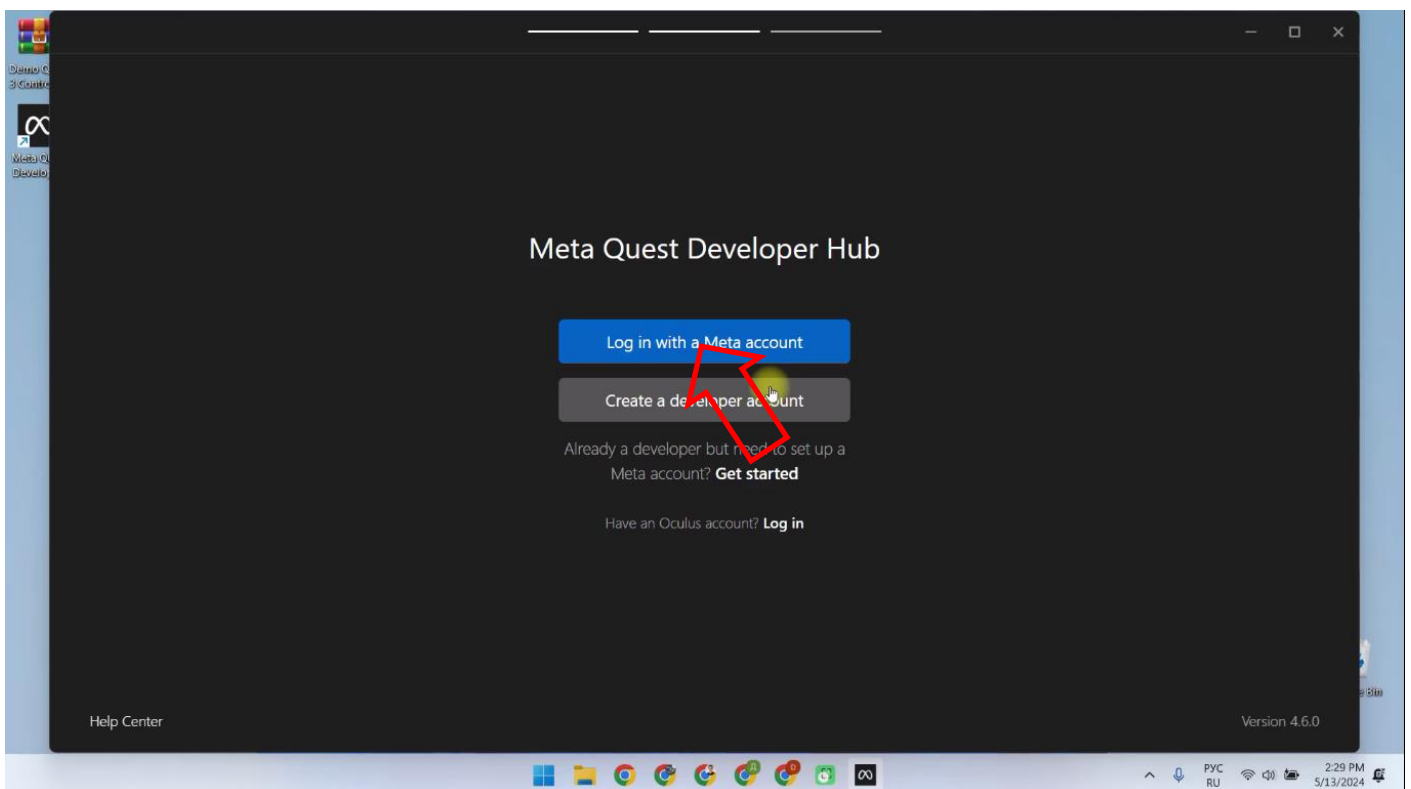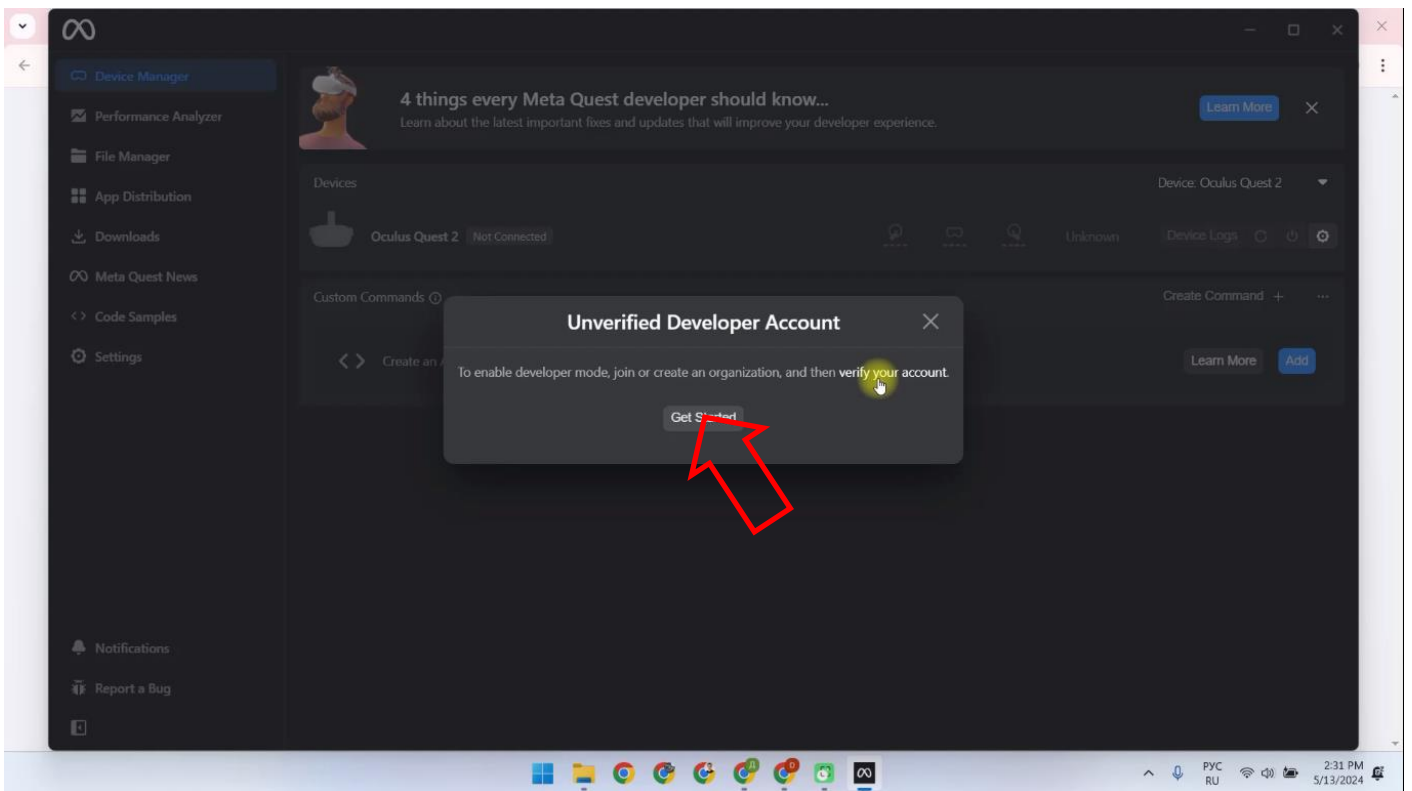

4) Confirm the account login by clicking "Continue as ...".

5) In the dialog box, confirm the opening of "Meta Quest Developer Hub" and click "Continue".
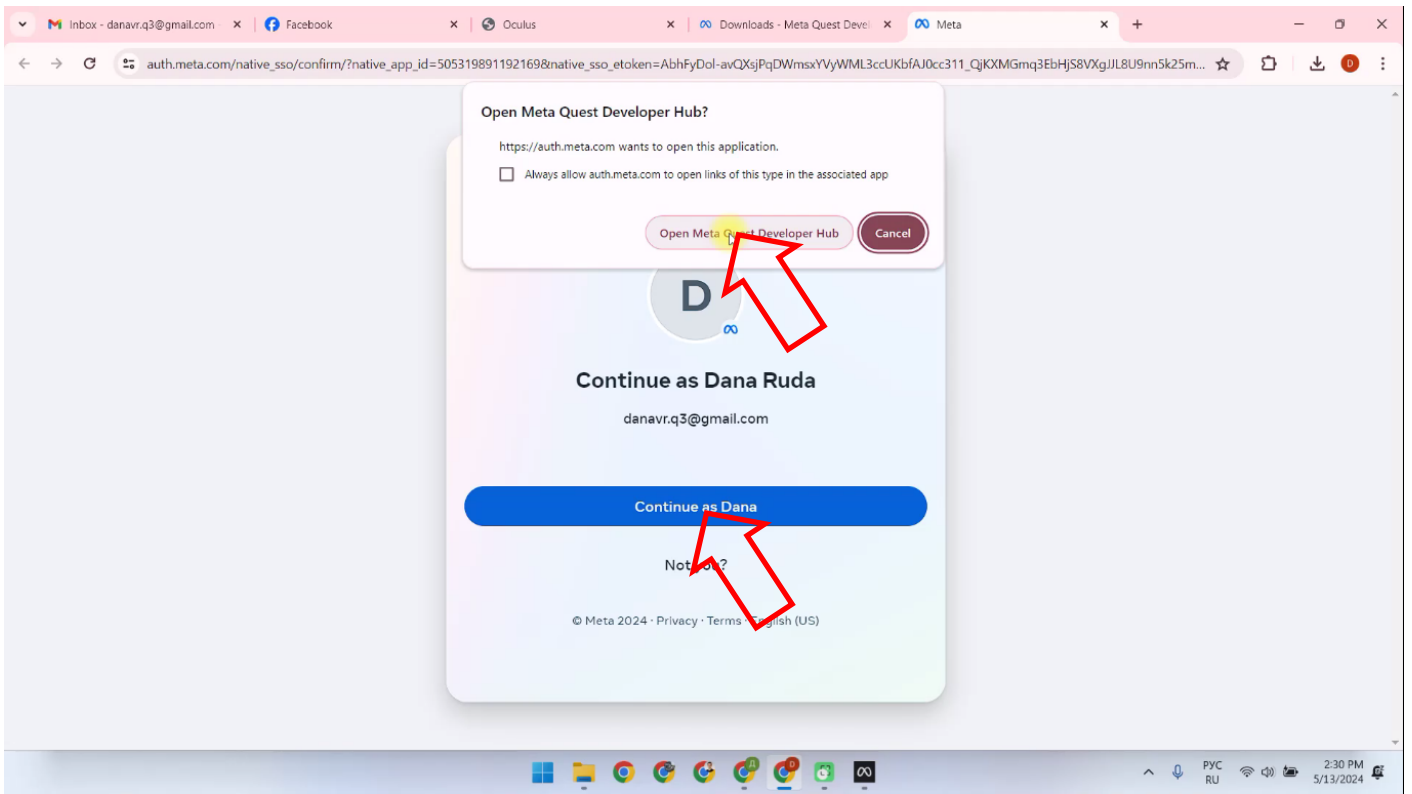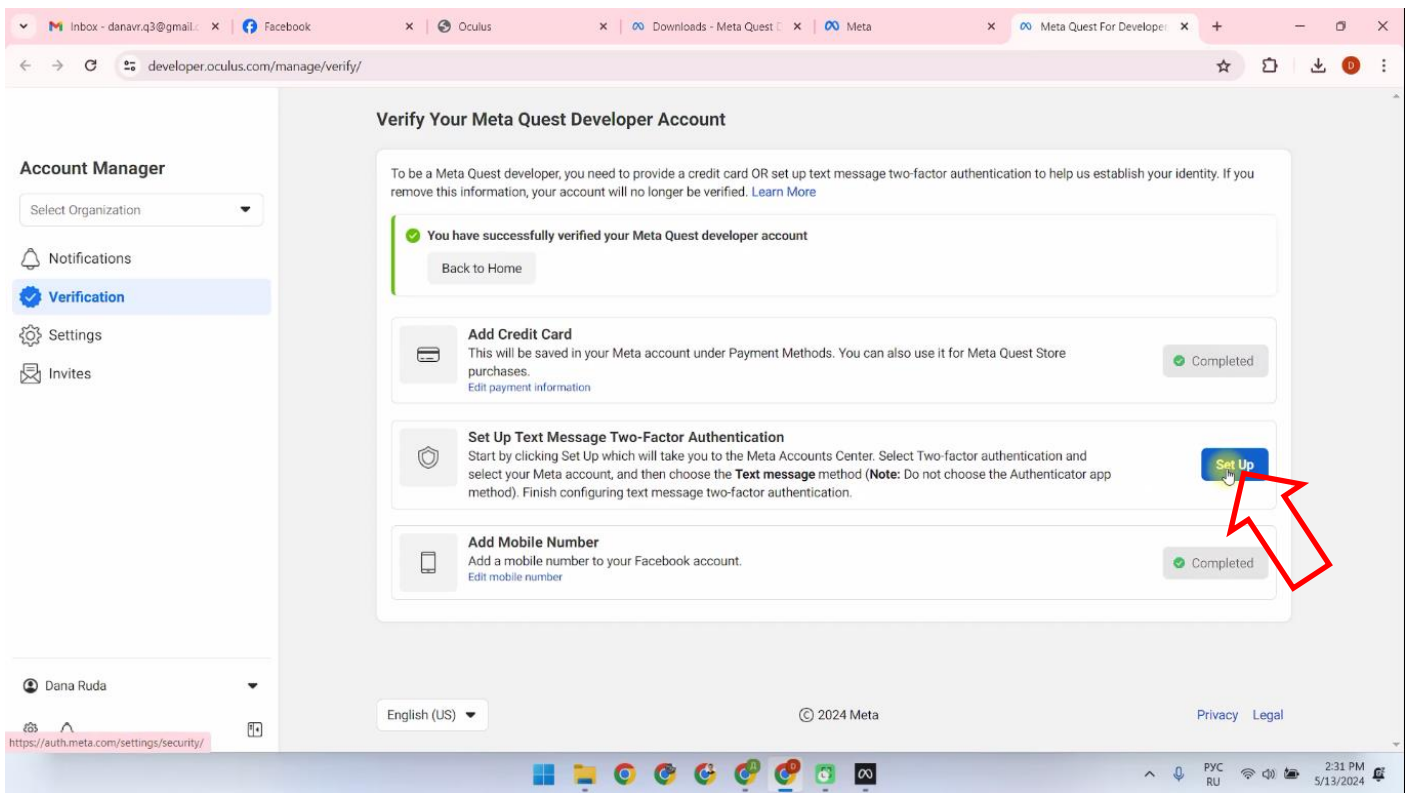
6) Go to the Device Manager tab.

7) To verify your account, click "verify your account". You will be automatically transferred to the [verification page](#).
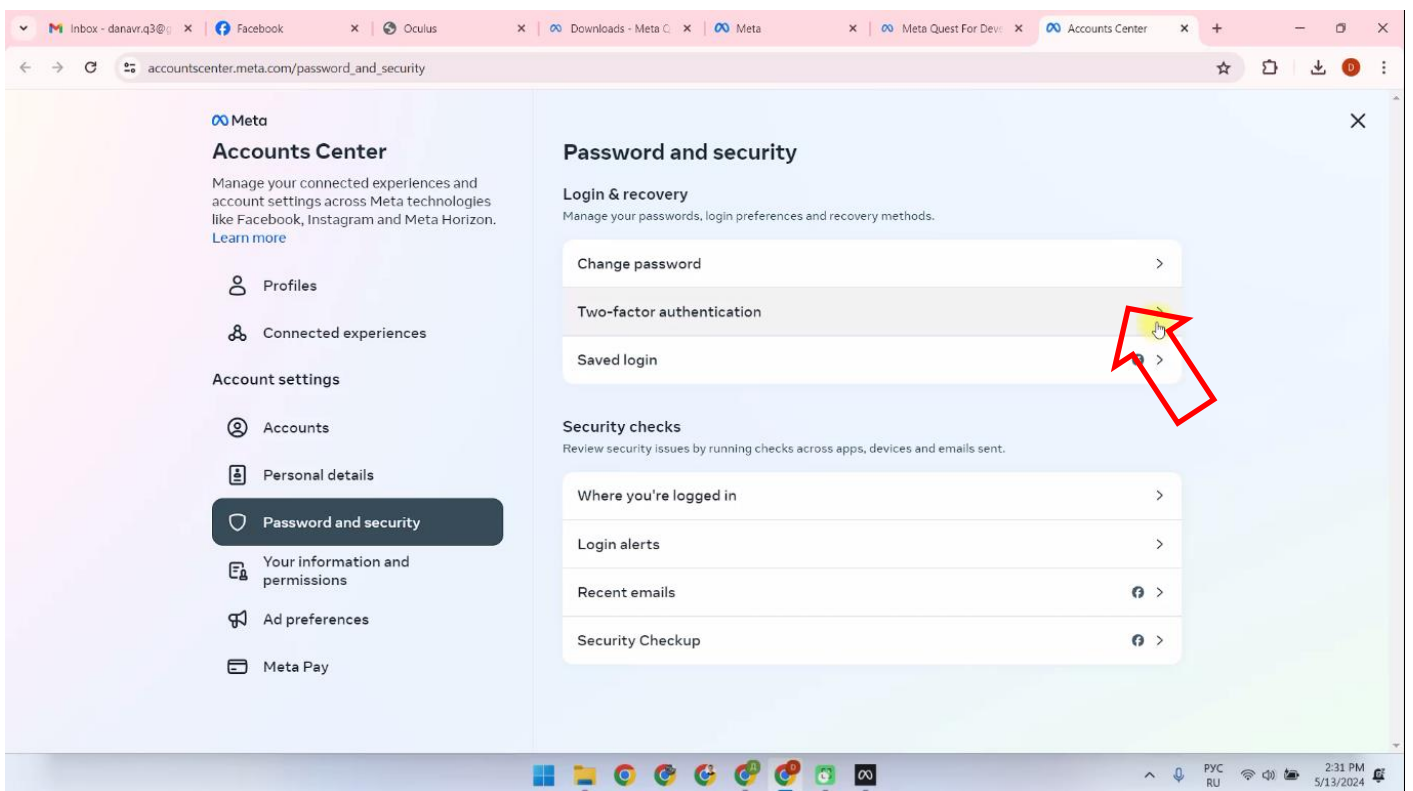

8) Click "Log In" to sign in to your account.

9) Check that your credit card details and phone number are already linked to your account, if not, you should add them.

10) Click "Set Up" to go to the two-step authentication setup page.
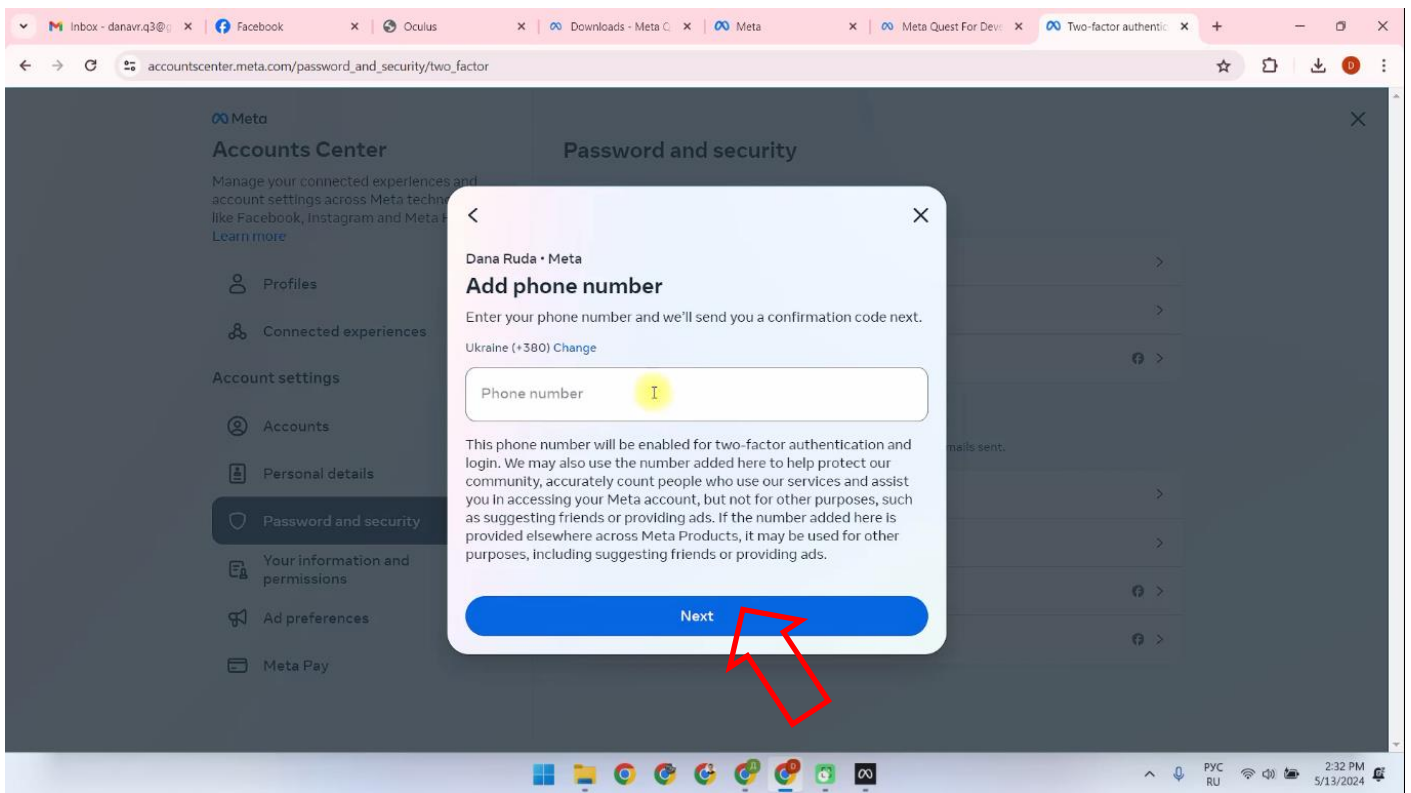
11) Go to the "Two-Factor Authentication" section.

12) Select the Meta account.

13) Select "Text Message" - confirmation of authentication by SMS.

14) From the drop-down list, select the country code, enter the phone number and press "Next".

15) A verification code will be sent to the phone number, enter it in the "Code" field and press "Next".

16) In the "Two-factor authentication is on" window, click "Done".

17) After that, you need to enter the Meta Quest Developer Hub program on your computer again.

18) Go to the "Device Manager" tab.

19) Perform verification of the developer account, to do this:

- Click "Get Started". The page will be automatically navigated to.
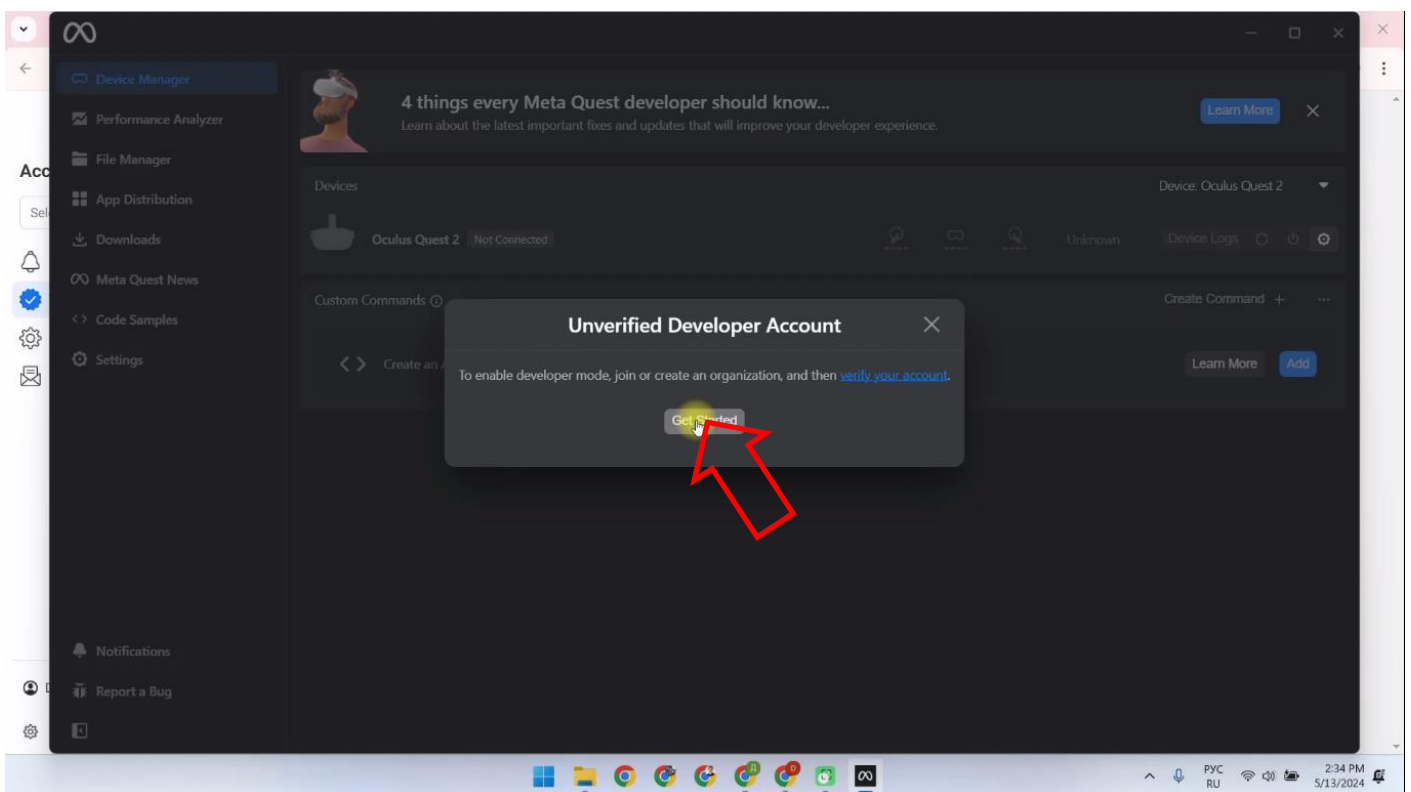
- On the website page find the section of creating a new organization "Joining or Creating an Organization";
- Follow the link on the page.

- Enter the name of the organization (you can enter any name) and click "Submit".
- Accept the terms of the license agreement by checking the box and click "Submit".

The next step after account verification is to bind the headset to your mobile device.

10. Setting up the headset in the Meta Quest Developer Hub program

You can watch the process of setting up the headset in the video tutorial at this [link](#) or by scanning the QR code.

To connect the headset, you need to:

1) Open the Meta Quest Developer Hub program and connect the headset.

- Connect the headset to the computer using the cable.
- Go to the Device Manage menu.
- Turn on the headset.
- In the Device Manager menu press the "Set Up New Device" button.
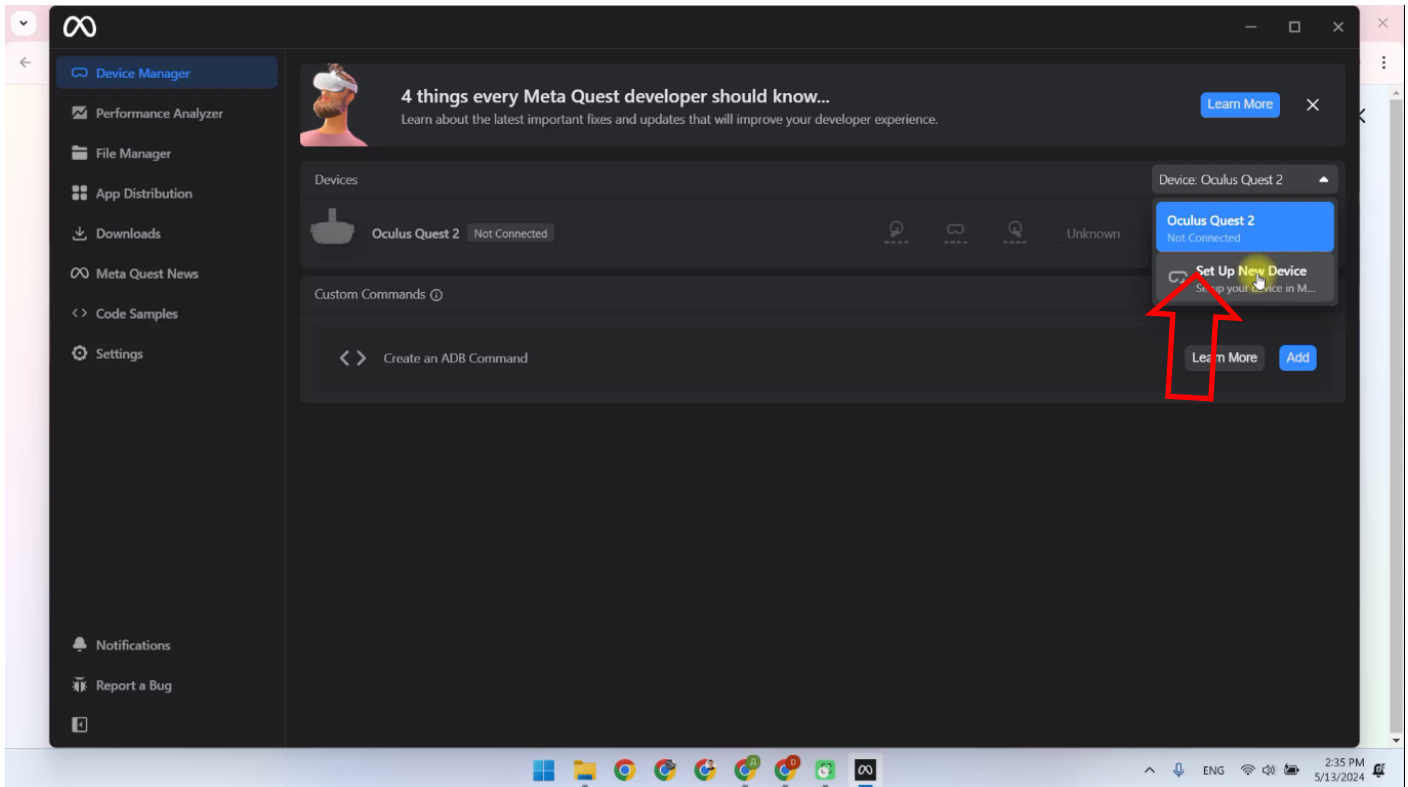
- In the "Setting Up Your Device" window, click "Next".
- In the "Set Up New Device" window select Meta Quest 3 headset.
- The serial number of the headset will appear in the "Choose Device" window, click "Next".

2) Put the headset on your head and take the controller in your hands.

3) The headset screen will display a message that you need to authorize the use of this computer. Press "Always Allow From This Computer" to continue.

4) In the menu item "Device Manager" on the tab "Apps" drag and drop the Vion_Demo_Q3.apk file. You can also add a file by clicking "Add Build".
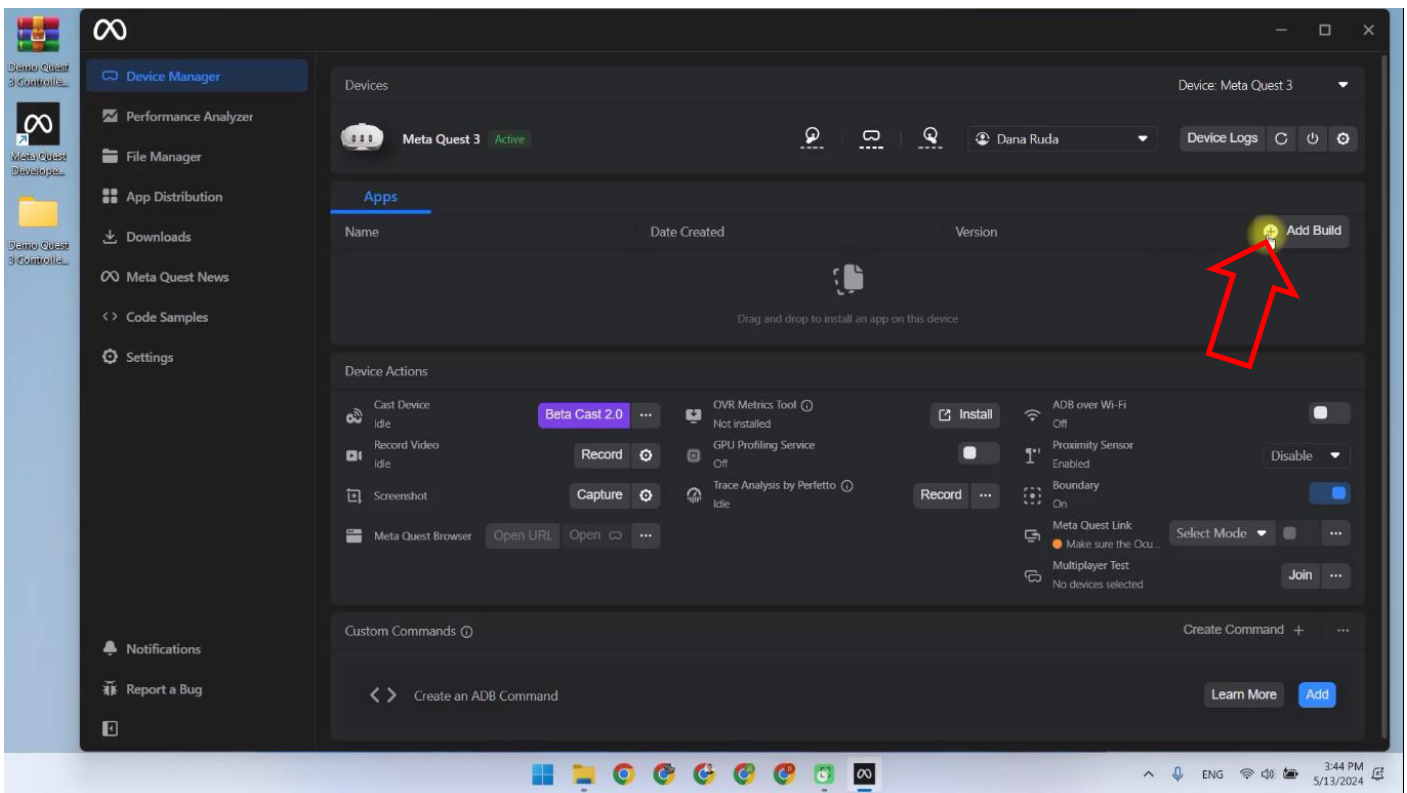
5) Additional APK file or old version can be deleted by clicking on the three dots on the side.
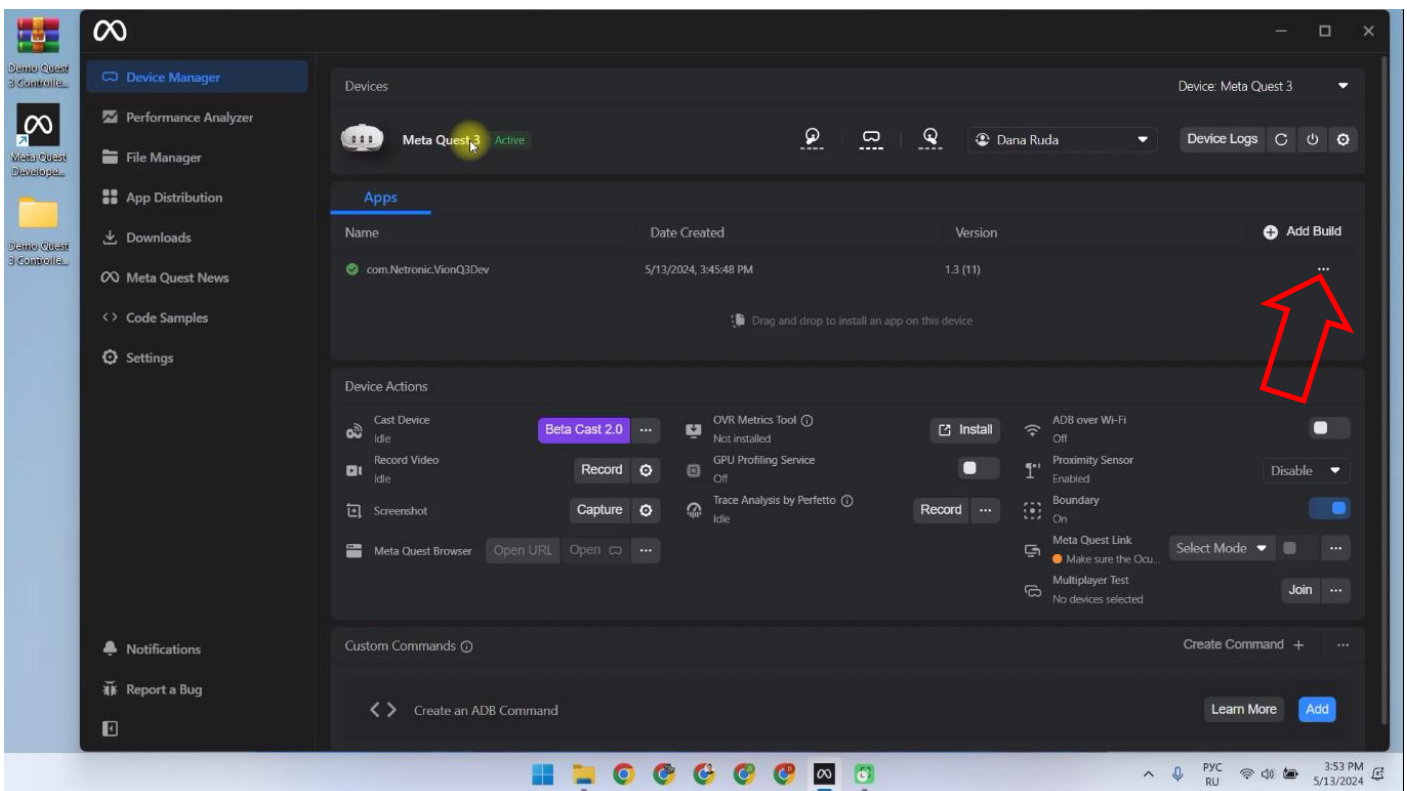
6) After installing the application, disconnect the headset from the computer.

11. Headset calibration

Before starting the session, you must check whether the helmets and the computer are connected to the same Wi-Fi network. It is also necessary to make sure that other hotspots are not connected to the computer and the helmet – these networks should be "forgotten" in the settings.

The calibration procedure is detailed in the corresponding part of the video tutorial, which is available at this link. You can also scan the QR code for quick access.

Before starting the calibration, you must connect the Vion app in the headset and complete the setup. To do this you need to:

1) Start the Vion application on the computer.

2) Put the helmet on and press the "Applications" button in the main menu using the virtual pointer.

3) Click the "All" button in the upper right corner.

4) Select "Unknown Sources" from the menu that pops up.

5) Launch the Vion application from the window that appears.
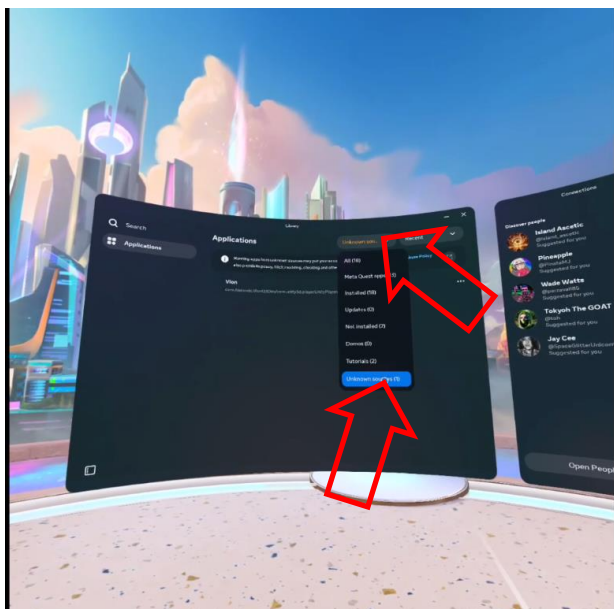
6) After loading it, the starting room is visible on the helmet screen, virtual weapons are displayed and there should be a clear image of the scoreboard on the wall.

7) If the display is blurred and there is no display of weapons, it is necessary to check the connection to the hotspot:

1 Press the button on the calibration controller – the universal menu opens on the helmet screen.

2 Press the "Quick Settings" button, and then check that the Wi-Fi network exists and it is connected.

3 Reconnect if necessary.
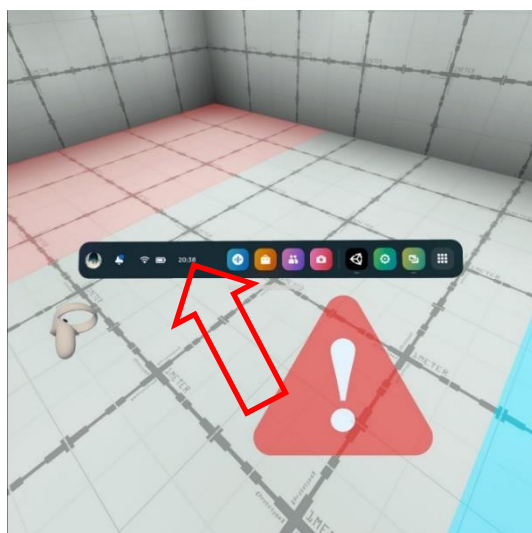
Provide 2 calibration points so that the distance between the calibration points of the circles is 70 cm when the controller moves form the first point to the second one.

The automatic calibration procedure is described in section 11.1, the calibration procedure is described in section 11.2.

Attention: when a warning sign appears, the ⚠️ player must remain in place and not move around the site, as this can lead to them getting into a virtual obstacle and, accordingly, deactivating.

When autocalibration is turned on, the player must remain in place until the sign disappears ⚠️ (automatic calibration occurs within a few seconds).

11.1. Performing an automatic calibration

When setting the automatic calibration (hereinafter – autocalibration), the helmet, after switching to sleep mode and returning from this mode, is automatically calibrated within a few seconds.

In the demo version, auto-calibration is performed from the floor, on the wall only for customers with benches.

To install autocalibration, do the following:

1) Launch the Vion application.

2) Enable the headset and the left controller as a pistol or other weapon. Wear a helmet and take the calibration (right R) controller.

3) Open the Vion app in the helmet.

4) If the helmet is connected correctly, this should be displayed on the main menu in the "Players" window:
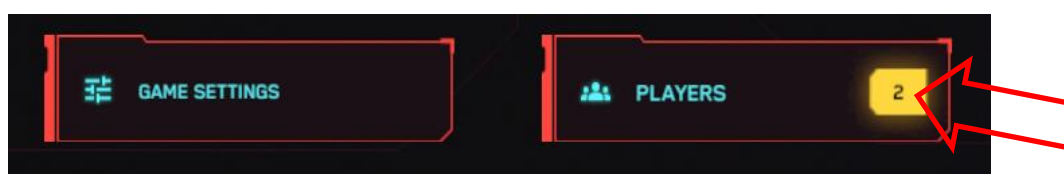
Also, a red triangle with an exclamation mark symbol periodically appears on the helmet screen ⚠️. This indicates that at the moment the headset is not calibrated, i.e. not tied to the coordinates of the playground.

5) Without removing the helmet, press the 'Y' button on the right controller to enable silhouette display.

6) Approach the calibration spot. Special points should be marked here. Their location in accordance with the settings in the supplied application is reported to the client.

7) Bring the controllers to the calibration points and simultaneously press the buttons on the handle (on the side of the controller) for 5 seconds. Short beeps indicate that the auto-calibration was successful.

Be sure to check that the blue ball is on the left and the red ball is on the right. If not, repeat the calibration.

8) If the AUTO RECALIBRATION setting is switched to "OFF" on the server, calibration does not occur automatically. In this case, when the firmware runs out during the game (the sign appears ⚠️), it is necessary to turn on the camera mode (press the B button on the right controller), then the calibration occurs automatically.

9) To deactivate the auto-calibration in case of problems, please contact technical support.
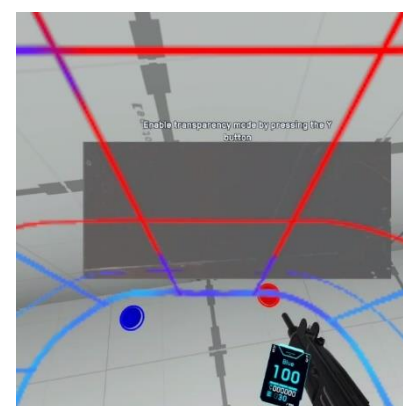
11.2. Performing the calibration

1) Put the helmet on, slide it over your eyes and point towards the floor so that the helmet cameras can see the controller.

2) Press the "X" button on the left controller for ~1.5 s until the audio signal sounds.

3) Move the controller to the second calibration point, press the "X" button for ~1.5 s (there should be an audio signal and vibration of the controller).

4) If necessary, two controllers can be used simultaneously. In this case, on the left controller you should press the "X" button for ~1.5 s until the sound signal appears, and on the right controller - the "A" button for ~1.5 s (there should be a sound signal and vibration of the controller).

12. Server launch and scenario configuration

When displaying the game picture and statistics on two or more monitors, before starting the server, it is necessary:

1 Make sure that you connect the external monitors to your laptop or your desktop computer first.

2 Right-click any empty area of your desktop, and then click Screen resolution.

3 Click the Multiple displays drop-down list, and then select Duplicate these displays.

Note. If you cannot see the additional monitor(s) listed, click Detect. If does not work, try restarting your computer and do step 2 to 3 again.

Before starting the server, make sure that the control computer and the headset are connected to the same network.

❗ To ensure stable connection, it is recommended to use a password-protected Wi-Fi network, which should not be used by unauthorized devices. Internet connection is not required during the game.

12.1. Game management is done using Vion software via a Wi-Fi channel. The program does not require any additional installation on your computer - it is enough to launch the control file Vion.exe.

12.2. If the network firewall on your computer is turned, installing the application may be blocked, then you should allow access.
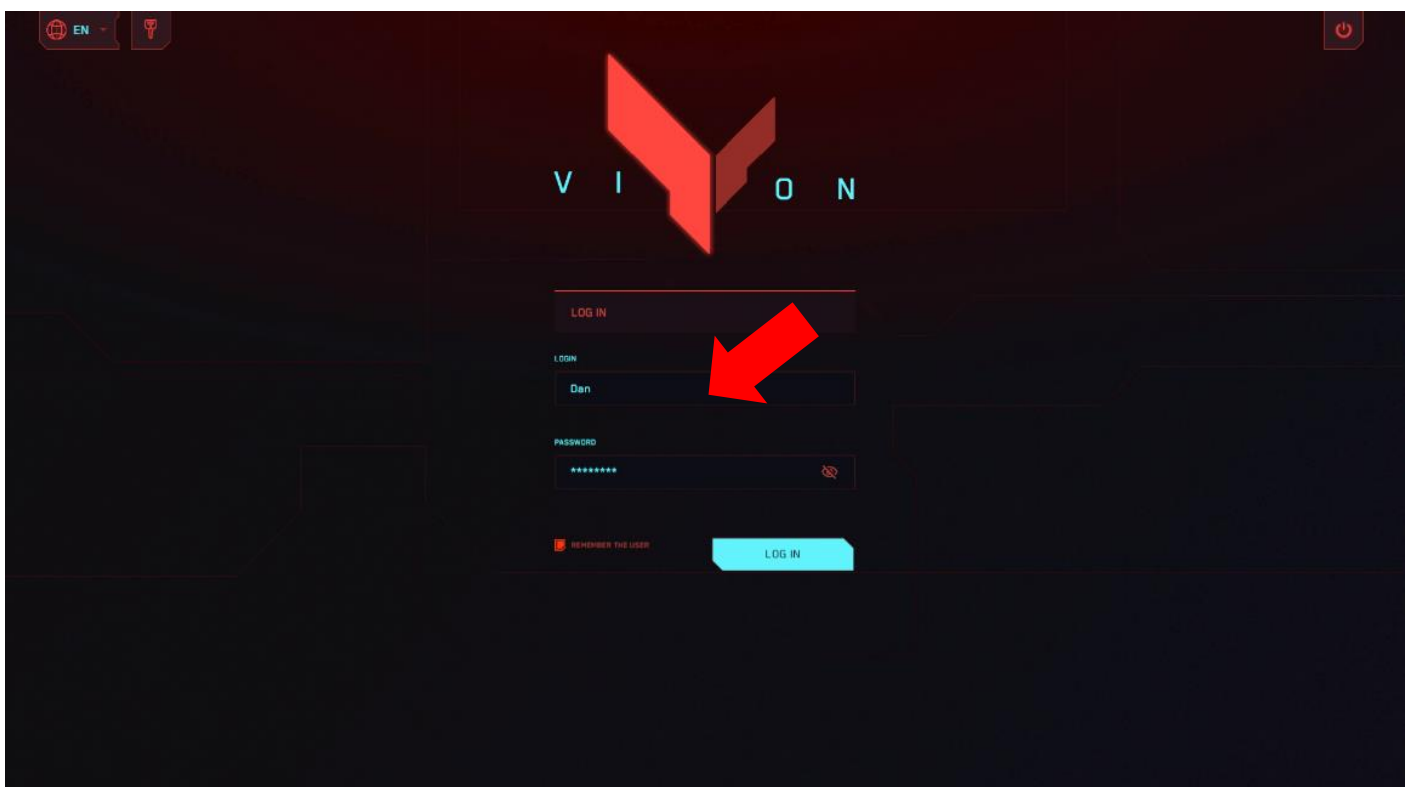
The login to the "Vion" app and the game setup process are covered in the corresponding part of the video tutorial, which is available at this link or by scanning the QR code.

12.3. To access the program, you need to enter the following login information in the startup window:

- Login: Dan
- Password: 12345678

Click the "Log in" button.

12.4. In the main window of the program, first of all make sure that both headsets are connected - the number "2" should glow in the yellow square above the "Players" button.
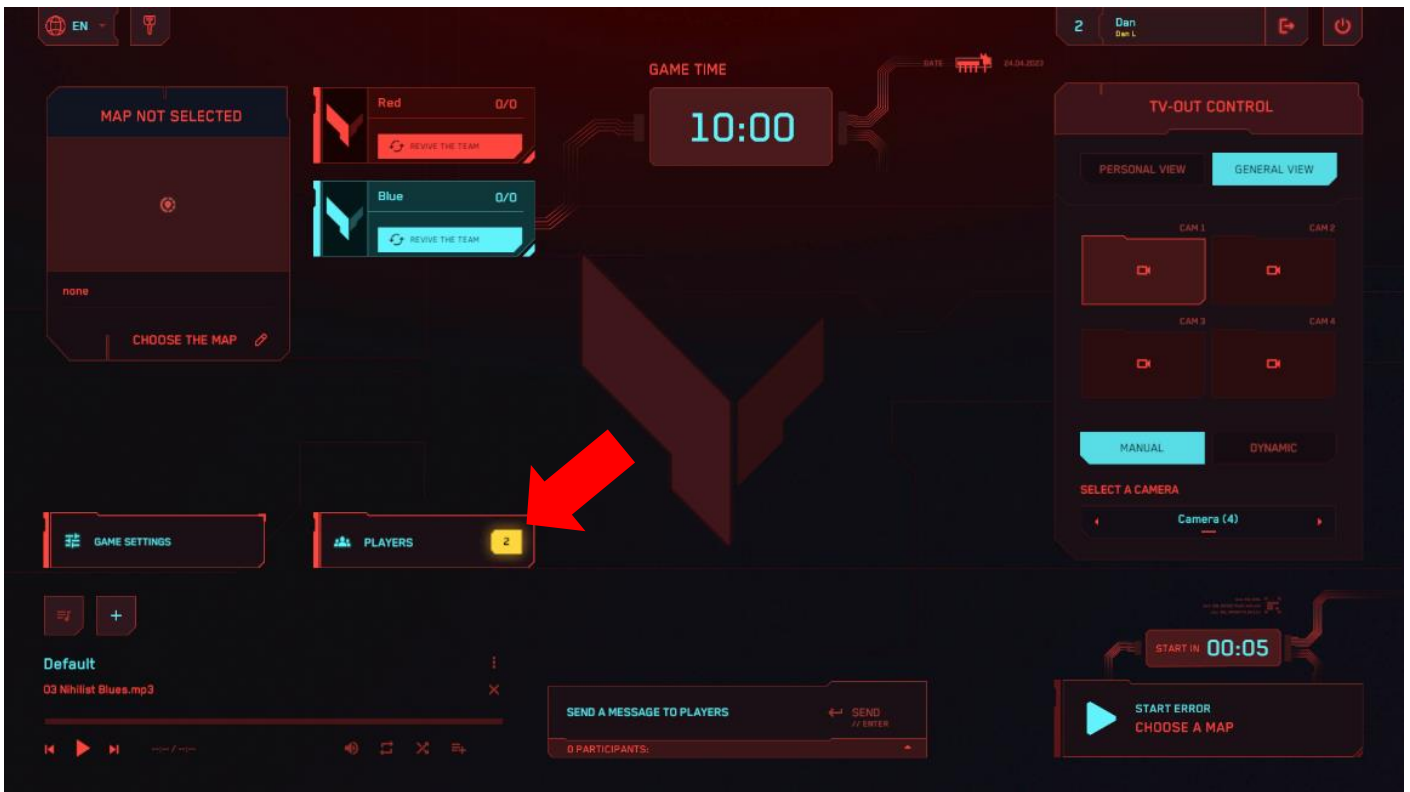
12.5. Click on the "Choose a Map" button.
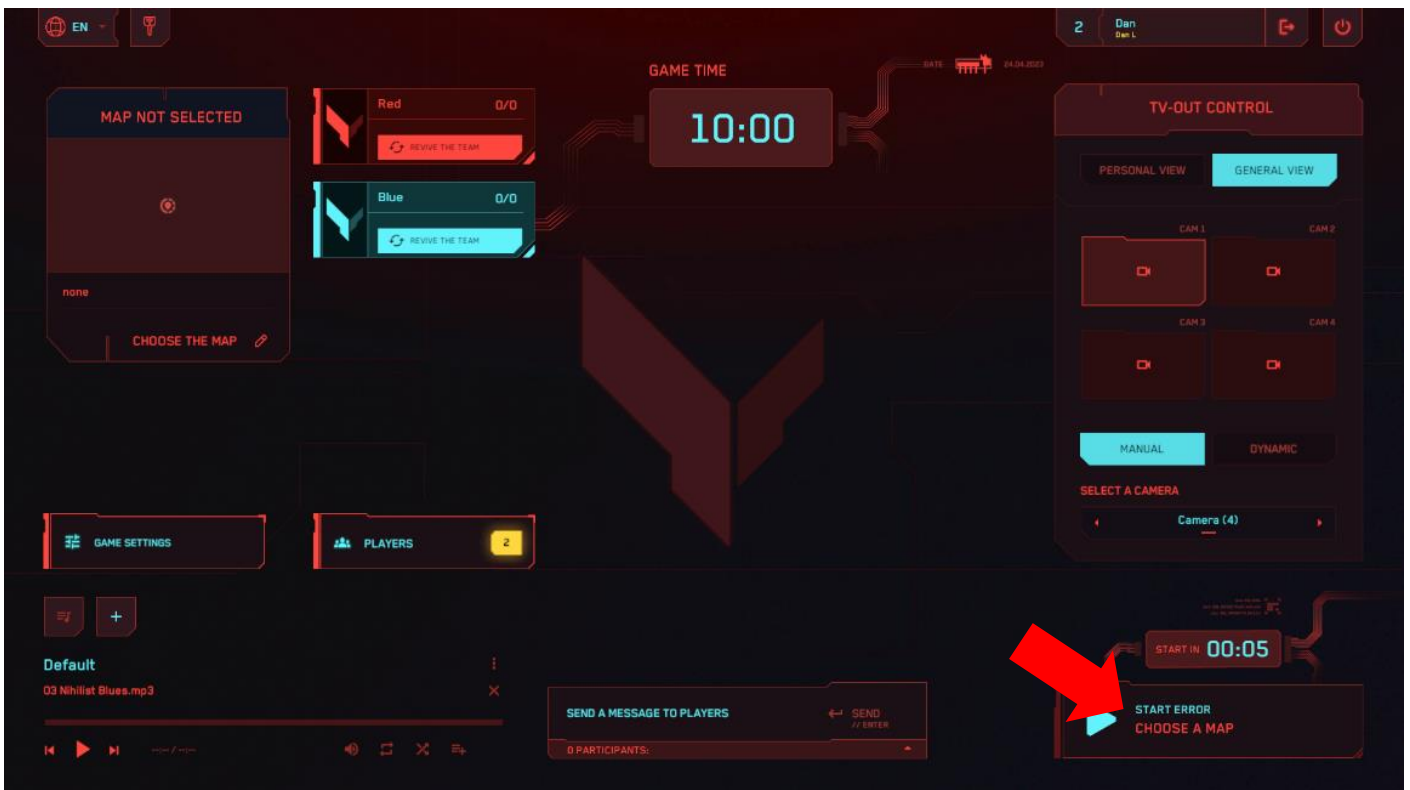
12.6. In the window that opens, you can select one of 12 maps: Red planet, New Year, Wall Street, Nuclear storage, Last Train, Citadel, The last frontier, Spaceport, Zombie Mall, Zombie Farm, Green house, Tiny World and Halloween's night. Maps have difference in entourage, arrangement of virtual shelters, sound accompaniment, as well as sharpening for a particular

game format – PVP or PVE.

Use the forward arrow and back arrow buttons to move the maps on the screen. Click on the "Select a map" button to select a map.
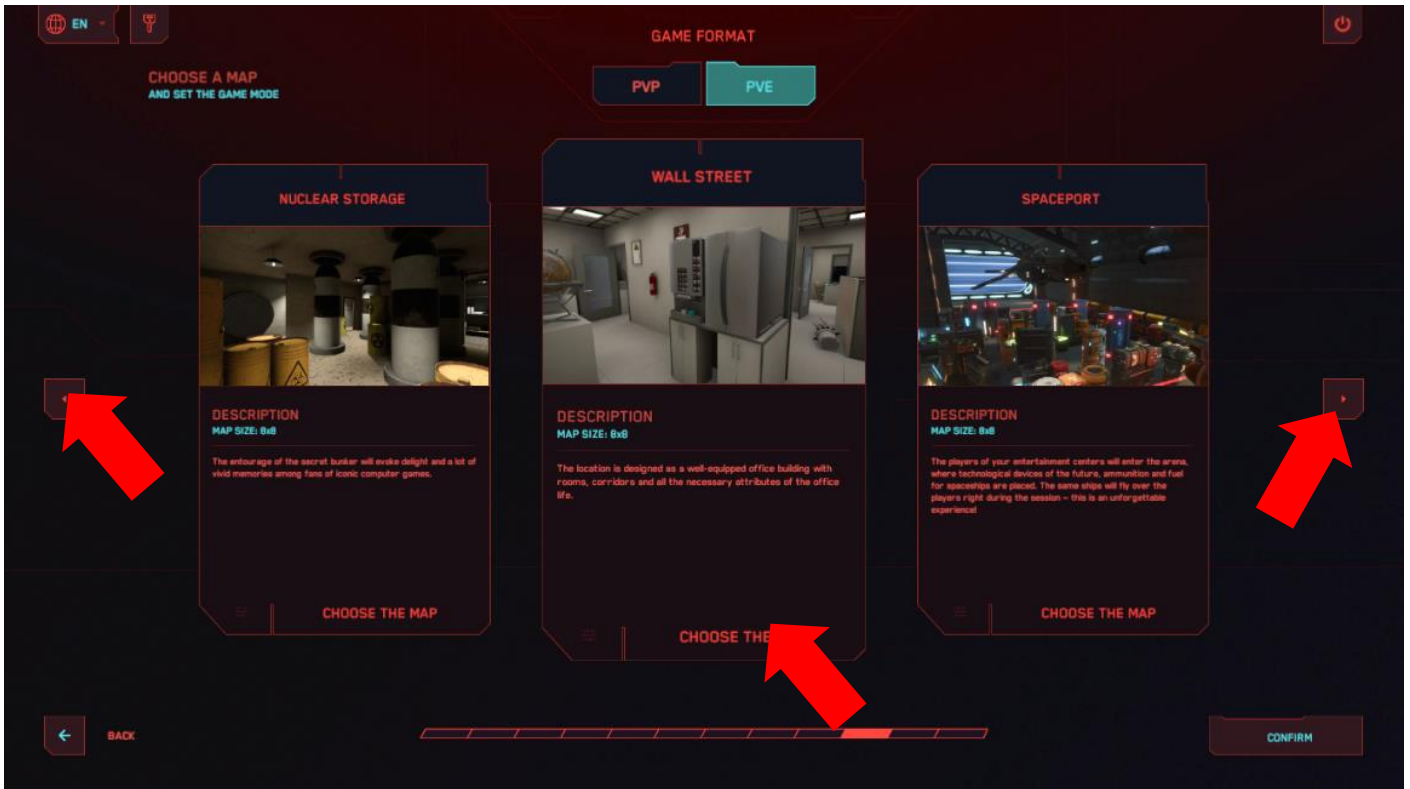
12.7. Wait for the drop-down list to appear and select the game mode: "Team battle", "Deathmatch", "Domination", "Bonuses", "Hive" and "Mop-up" (game format PVP) and "Game with bots" (game format PVE).
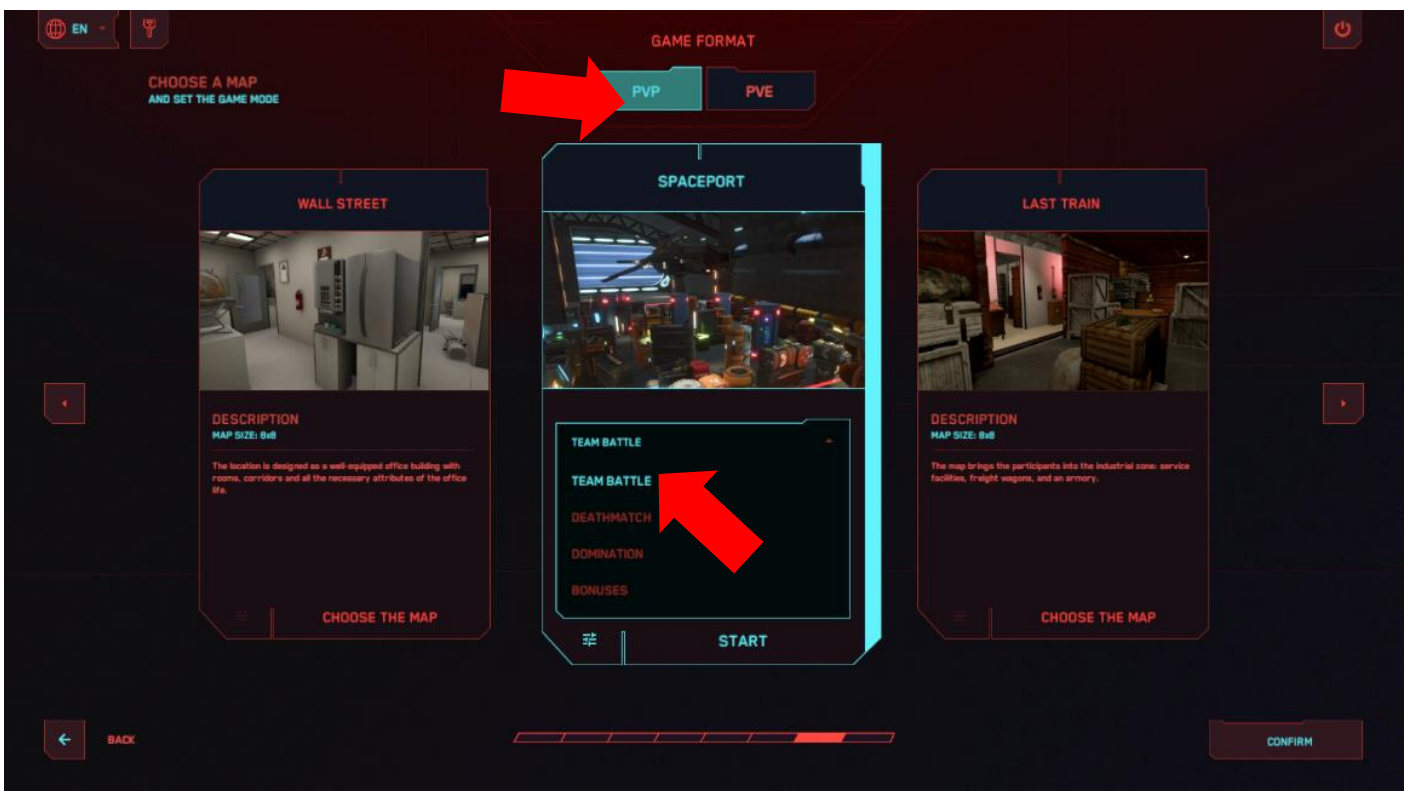
12.8. "Team fight" and "Deathmatch" - firefights aimed to gain the maximum number of points for hitting the opponent.

12.9. In addition to firefight, "Domination" provides "flag capture" - on a platform the virtual device in the form of a rack is set and there is a prize zone near it. The player must enter it and after a while points are awarded to them. If at this moment the opponent deactivates the player or also enters the same zone, awarding of points stops.
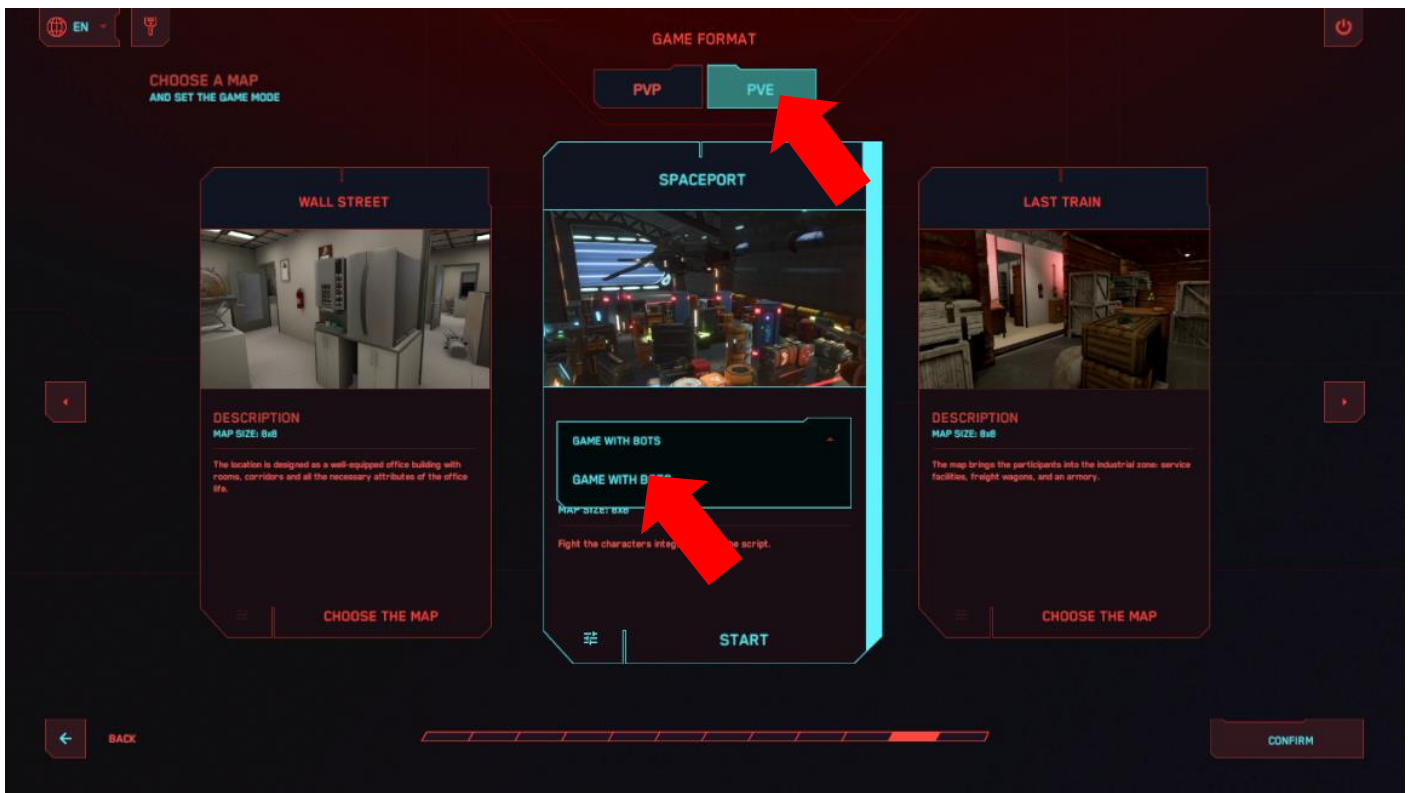
By clicking on the settings button 🎛 , you can set the following parameters: "Medkit respawn" – ON/OFF, "Number of medkits on the map" – it is possible to set from 1 to 10 health packs, The pause before the start of accrual ("Time to capture the Flag" - from 1 to 10 seconds), the number of points ("Score for Captures"– 1-10) and the speed at which they are awarded ("Capture speed (Sec.)" from 1 to 10 seconds) are set in the program. Exit to the main menu - press Esc/Back/Confirm.
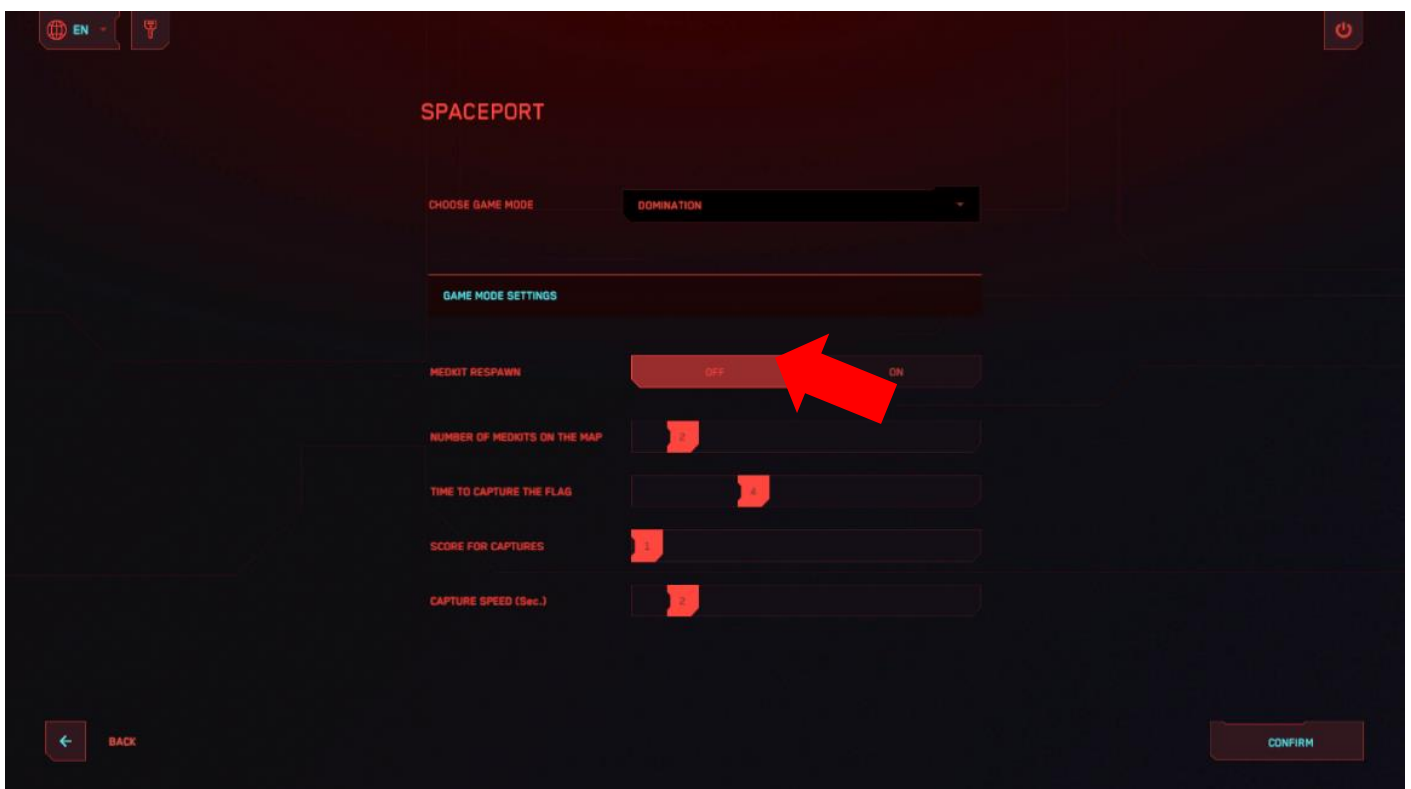
12.10. In the "Bonuses" game type, players can get points not only for defeating the opponent, but also for collecting artifacts scattered around the playground. Artifacts are three-dimensional rotating shapes that glow yellow. To collect, just come up to them. You can also add artifacts that restore health – green crosses add 25 % health, and hearts – 100 %.

By clicking on the settings button ⚙ , you can set the following parameters:

- "Reward for Collecting" – the number of points awarded for finding an artifact (1-100);
- "Bonus respawn time" – the time in seconds after which artifacts self-recover (1-10);
- "Maximum number on the map" – the number of artifacts that are on the virtual platform at the same time;
- "Medkit respawn" – turn on/off the availability of first-aid kits on the playground;
- "Number of medkits on the map" – it is possible to set from 1 to 10 health packs;

Exit to the main menu - press Esc/Back/Confirm.
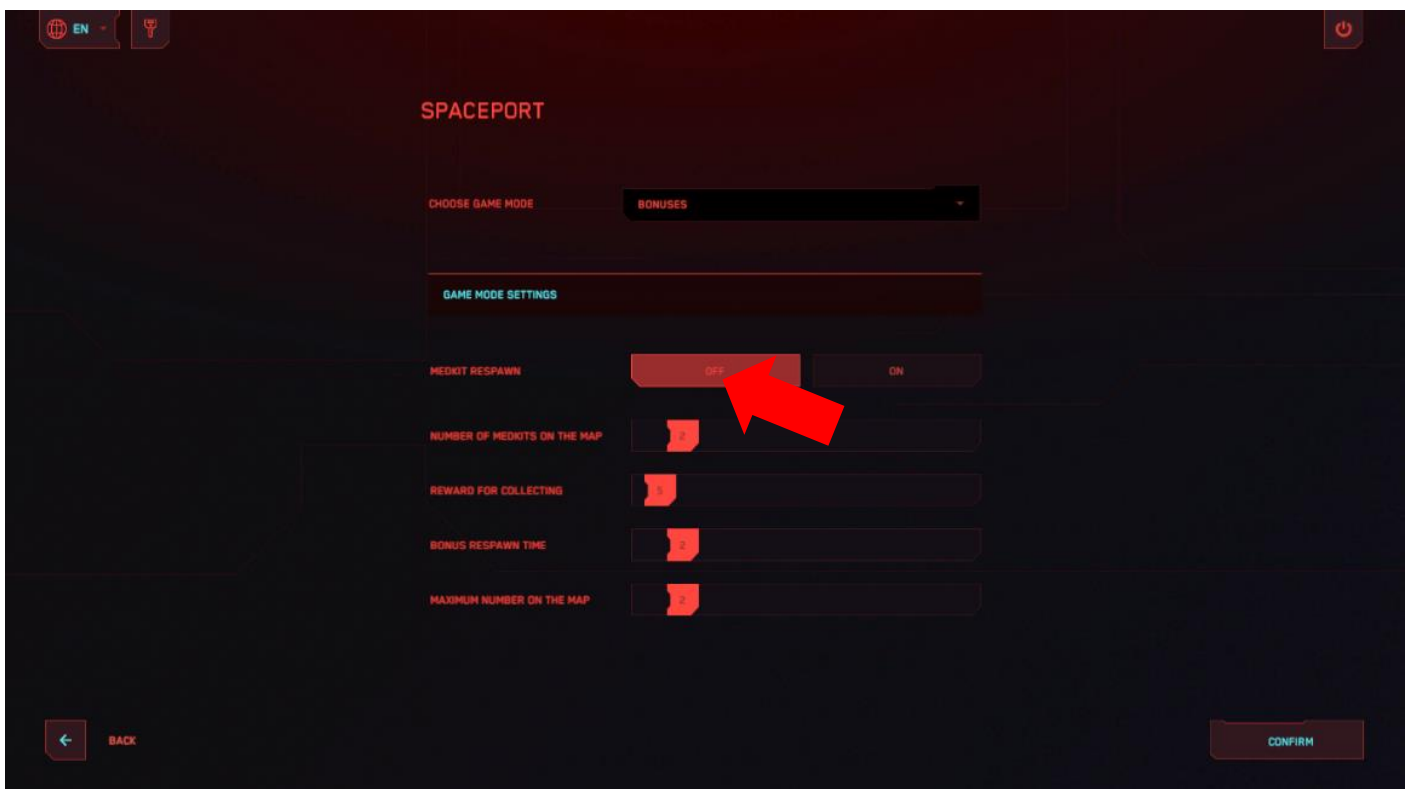
12.11. In the Hive type of game, when one player is injured, all team members lose a portion of their total health. Cooperation and coordination are key elements of survival, as each player is important to maintaining overall health and successfully completing the mission.

12.12. The Mop-up game type is a battle between two teams, where the goal is to clear the enemy's territory. Battles take place in rounds, and each round gives the teams new opportunities to develop tactics and strategies. The team that can best coordinate and adapt to the dynamics of the battle wins.

Note: Hive and Mop-up modes are available in the full software version!

12.13. In the "Game with bots" type, you need to fight with characters embedded in the scenario. Important: the total number of players and bots on the platform should be no more than 10.

By clicking on the settings button ⚙ , you can set the following parameters:
- Medkit respawn – ON/OFF;
- Number of medkits on the map– (1-10);
- Maximum number of bots on playground – (1-5);
- Bot respawn time (Sec.) – (1-10 s);
- Bot damage – (1-100 health units).

Exit to the main menu - press Esc/Back/Confirm.
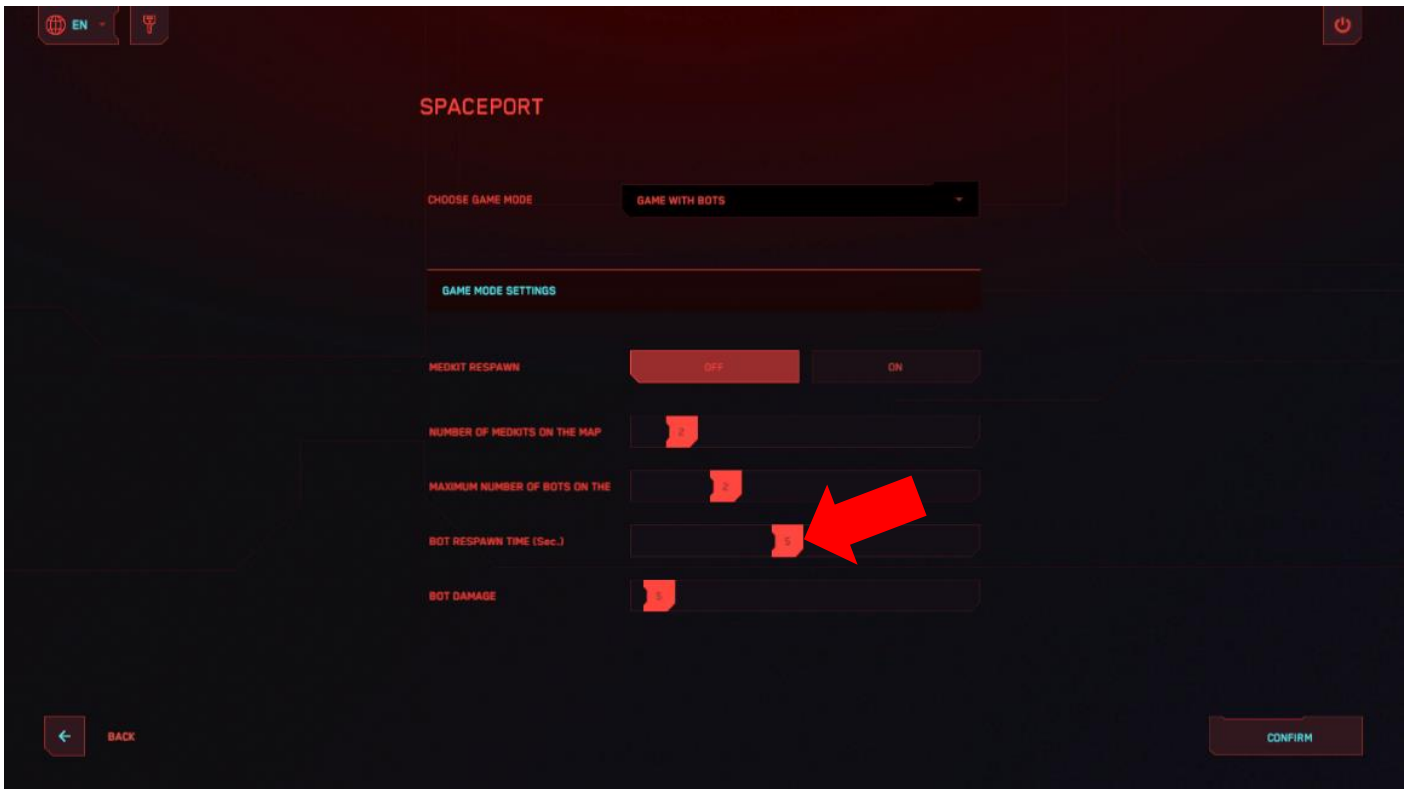
12.14. By clicking on the "Game settings" tab, which is located on the main screen, you can change the following settings: player detection, head wound, blood presence, auto respawn, auto reload, endless cartridges, custom player.

Also, the label "By default" at the bottom of the screen allows you to return to the default settings when clicking it.
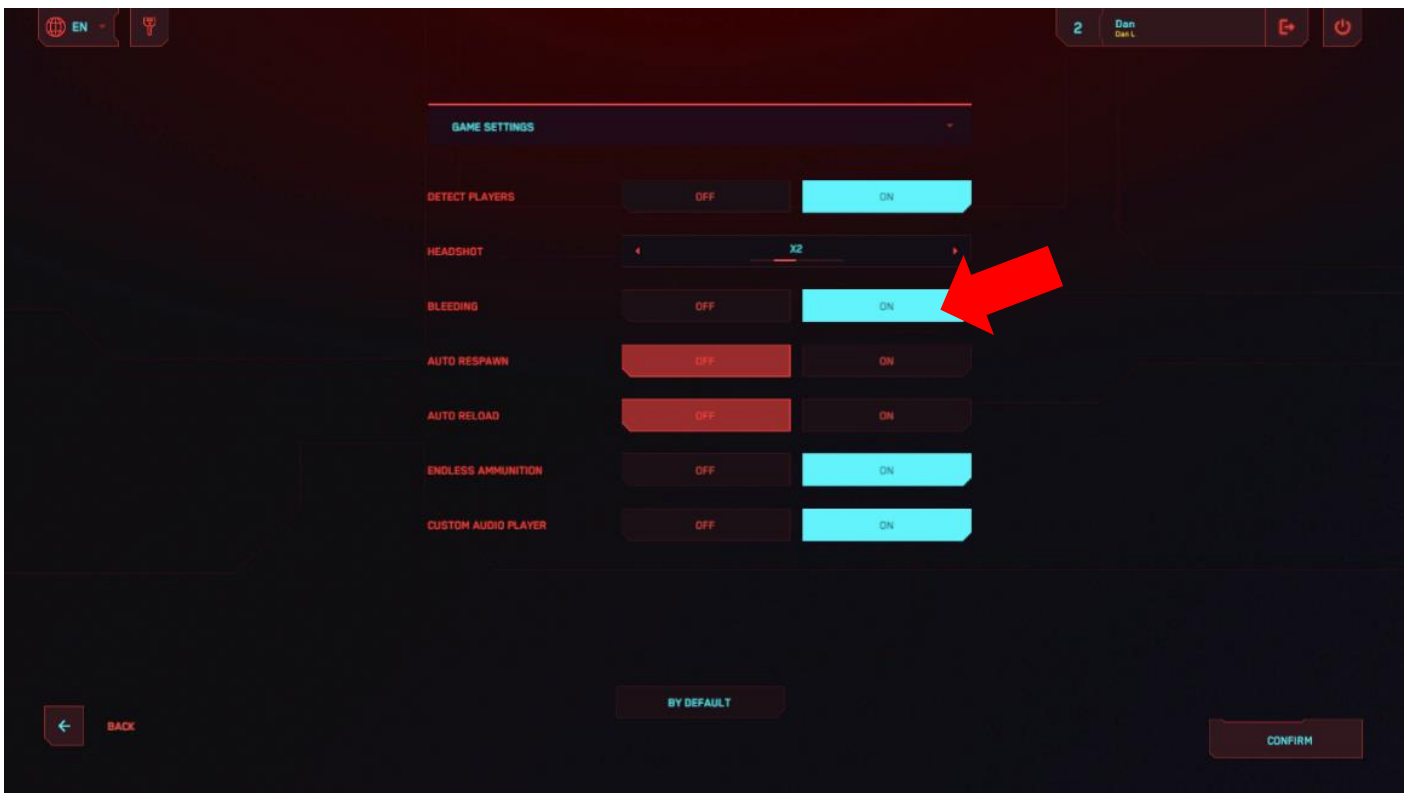
12.15. Clicking on the "Players" tab, you can change the team settings. It is possible to enter a team name, set the amount of life, and you can also deactivate or respawn the team.
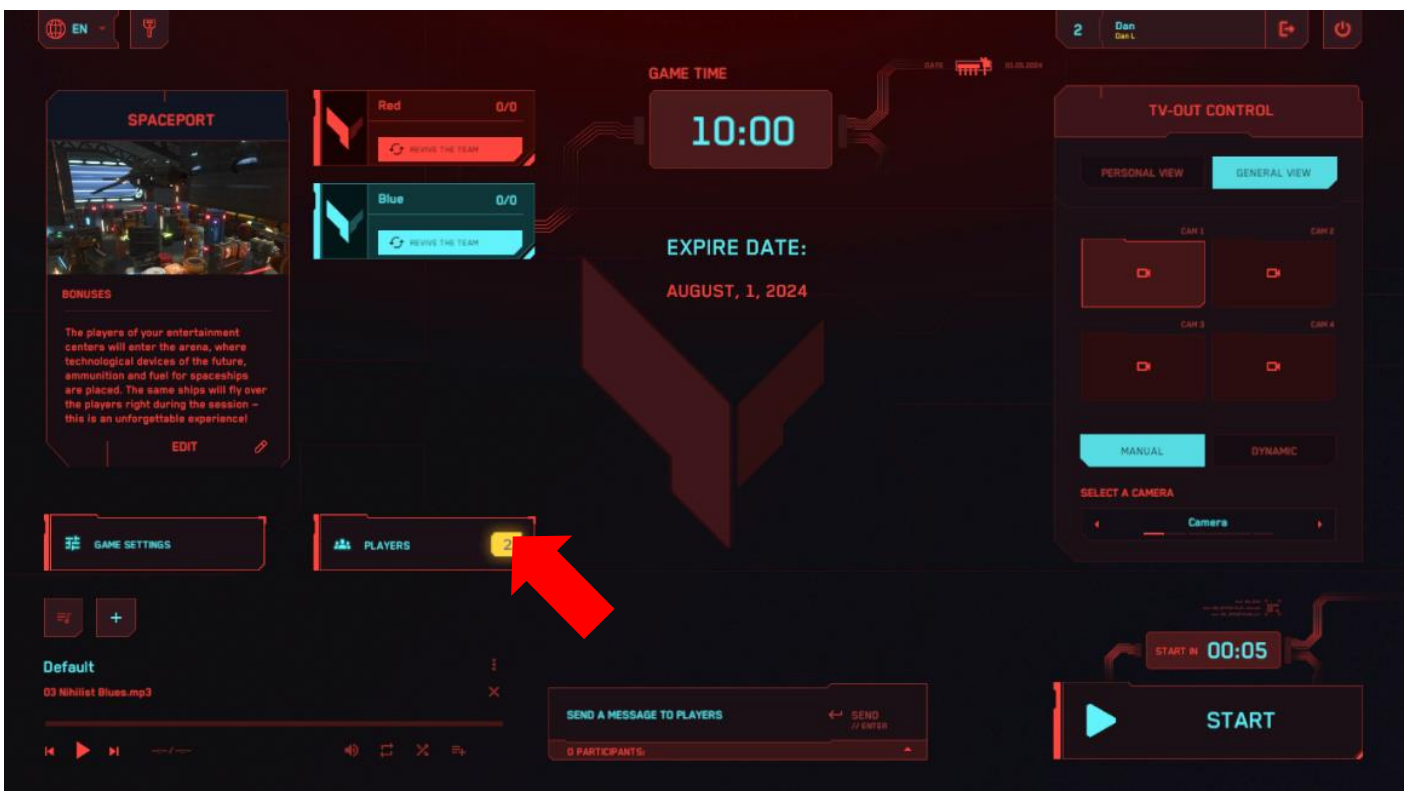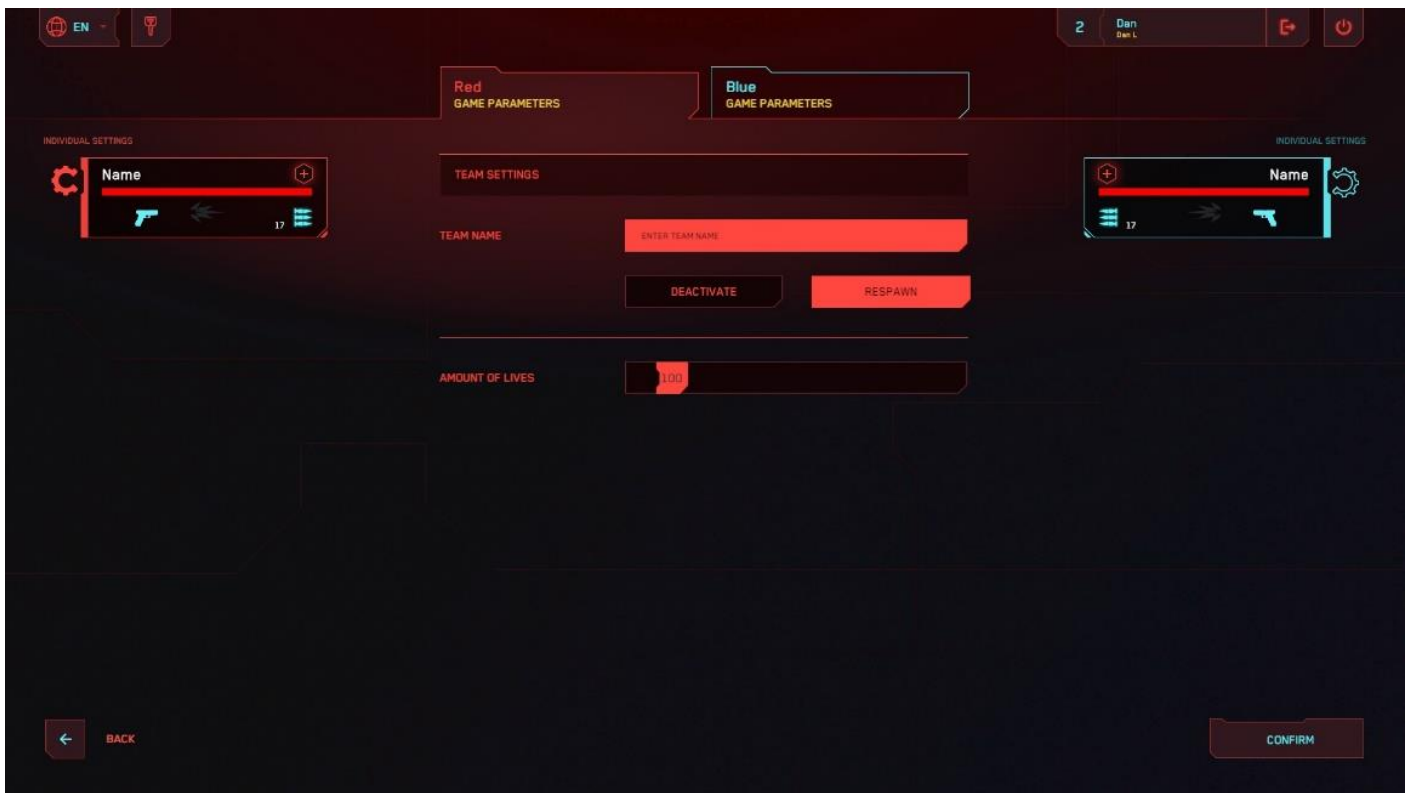
12.16. The individual settings window opens after clicking on the player's tile. You can enter the name of the player, set the number of health units. You can also deactivate the player, respawn.
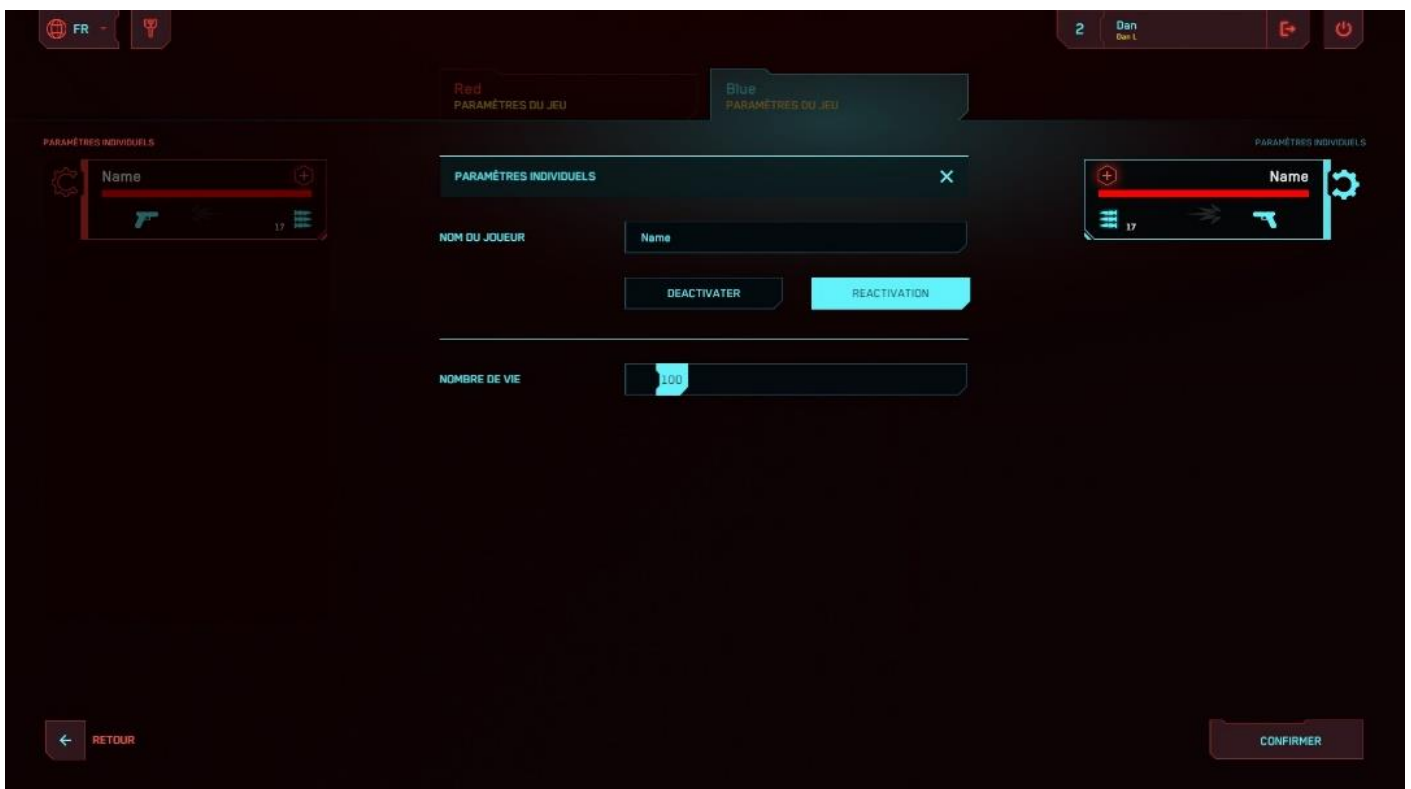
Exit to the main menu - press Esc/Back/Confirm.

13. Starting the game and holding a demonstration session

13.1. Check that the selected card is displayed correctly on the main screen.

13.2. Click "Start". (You can do it also directly from the Map selection menu).

13.3. The timer first counts down and the game starts.

13.4. If it is necessary to force the game to end (stop), click on the "Stop" icon in the lower right corner of the main program menu screen.

In the demo version, depending on the scenario setting, task of the players is to hit the opponent or bot as often as possible. You can set up a scenario to capture dominance (a domination box) or collect artifacts. Each player has a virtual weapon – Kalashnikov or Falcon rifle. Shots are made by pressing the button under the index finger ("trigger") of the right controller.

During the game, the players' helmet screens will display a menu with their current kit settings - the health status bar, the number of ammo, etc. A misfiring sound will indicate that the player has run out of

ammunition – the weapon type differs depending on the map selected. Reloading - press the thumb button on the controller.

Coins are earned by killing the enemy in the game. When a player accumulates a sufficient amount of coins to purchase the next type of weapon, an automatic purchase occurs (the weapon in the player's hands changes automatically). If the player wishes to continue playing with the previous type of weapon, they must access the weapon shop by pressing the "A" button on the right controller. Then, they can choose any previous type of weapon using the slider.

When hitting opponents, their health units are reduced and when they run out of health units, they will be deactivated. The image of the deactivated player becomes transparent on the helmet screen. The player can resume the game at the respawn points, which are located on the playground and are specially illuminated even through the obstacles.

Similarly, deactivation occurs when the player crosses a virtual wall or objects.

The instructor also has the ability to "respawn" the player from the server program by accessing the individual settings of the set.

14. Game streaming setup

Displaying the gameplay on an external screen is an important factor in attracting new customers to the VR-attraction. Additional monitors or TV screens are installed by means of the operating system installed on the server computer. When displaying the game picture and statistics on more than two monitors (see Chapter 11 of this manual), it is necessary to set up a duplication or use a splitter.

In order to display the game dynamics on the external screen, it is necessary to configure the display method from the main menu of the program (section "TV-OUT control").

Here you can select the streaming mode "Personal view" or "General view". When you select "Personal view", the screen displays the gameplay in the view of one of the players.

If you select the "General view" display type, the general plan of the in-game locations from one or more virtual cameras will be displayed.

Switching between players/cameras can be done manually - in this case, a specific camera or a specific player is selected from the list, it can also be switched dynamically. When selecting the "Dynamic" type of switching, it is necessary to select the time of the image change.
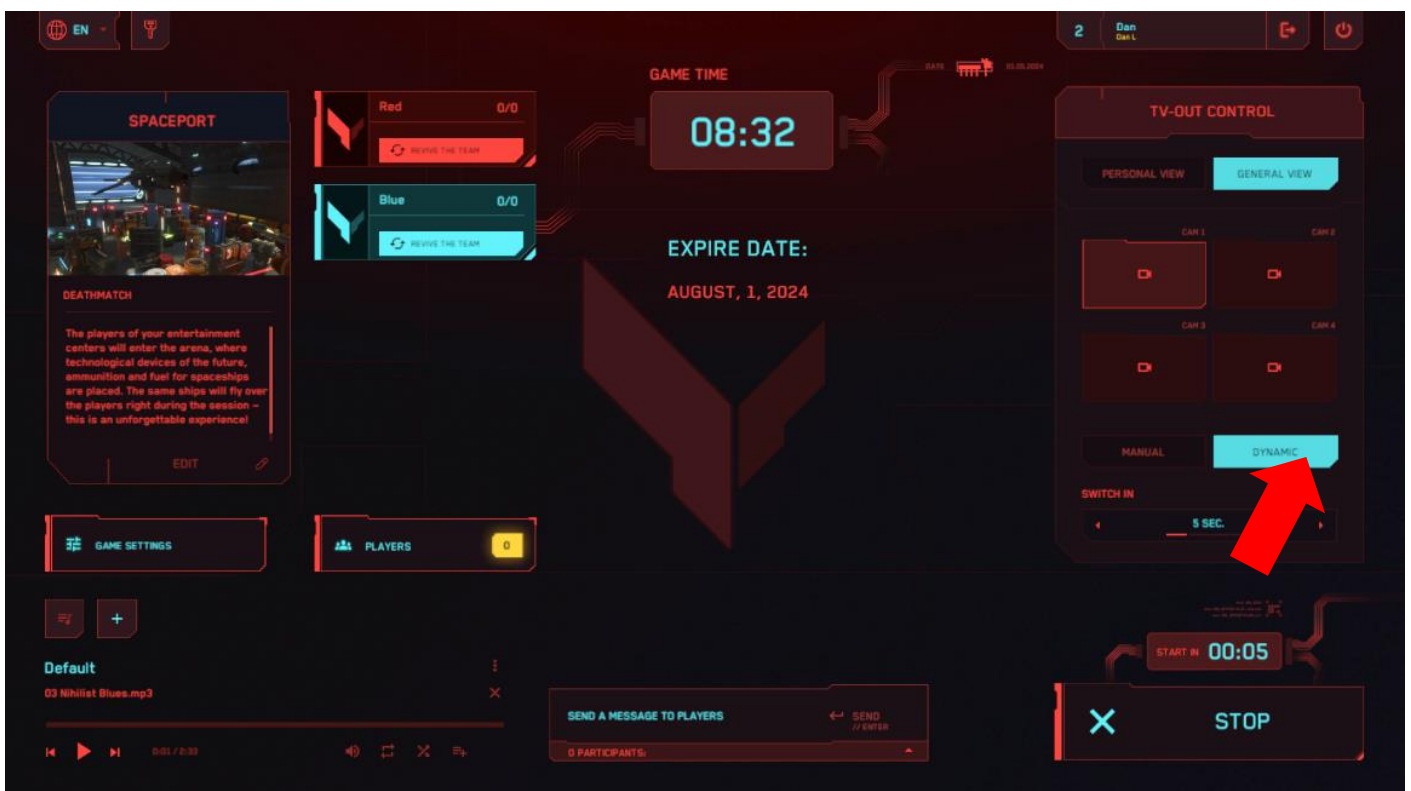
15. Audio setup

Vion program has a built-in multi-track audio player that allows you to turn on the audio to create a more dynamic atmosphere.

You can add your own tracks to the default playlist. You can also add and use your own playlist. It is recommended that you run the soundtrack at the time of the countdown before the start of the game.
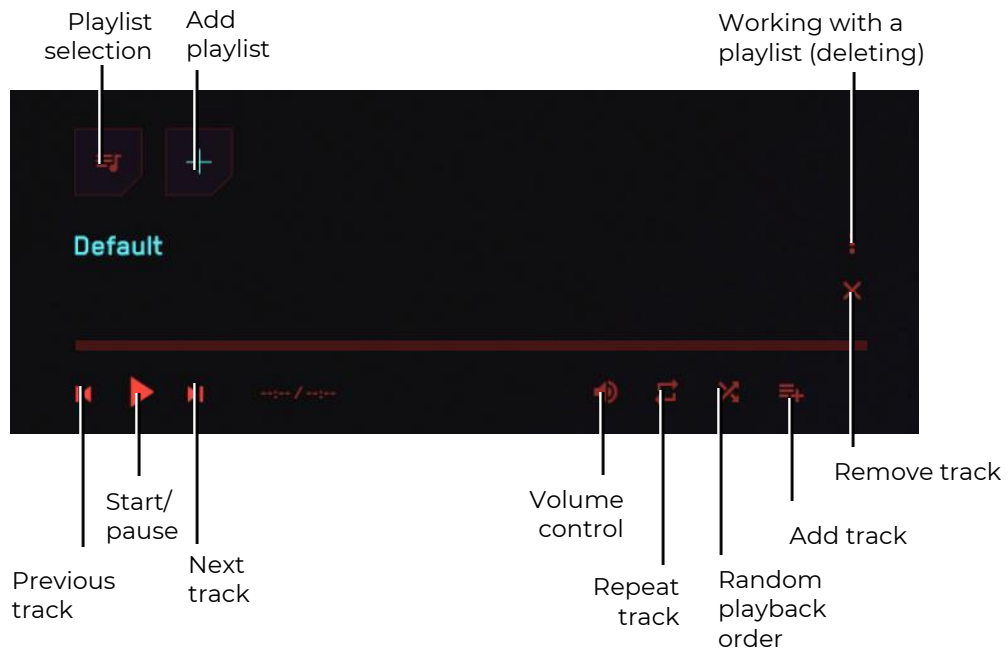
Audio player menu

To add your own track to the current playlist, click the corresponding button. The application suggests you to add files from the computer's file system.

To add a playlist, click the plus button. The program suggests you to enter the name of the playlist, and then gives you the opportunity to fill it with tracks.

16. Configuring sending messages to players

During the game, the instructor can send messages to one player or all players at once. To do this, at the bottom of the screen in the "Send a message to players" section, you enter the text of the message and select one or all of the recipients from the list. To send – press the "Send" button or the "Enter" key on the keyboard.

17. End of the game, statistics display

The game ends either by timer or by force when the instructor clicks on the "Stop" button in the main menu of the program. A message is displayed on the player's helmet screen indicating the end of the round.

After the end of the game, the external screen displays the game statistics with the name of the game scenario, names, number of KDA (kills, deaths, assists – help in deactivation of enemy characters), players' ranking and other characteristics.

To go to the main menu – click on the "Main menu" button, which is located in the lower left corner of the screen. To exit the program – click on the exit button, which is located in the upper right corner of the screen. To confirm the exit in the window that opens, click on the "Yes" button, to cancel – the "No" button or the "Esc" key on the keyboard.

18. Actions in emergency situations

In case of calibration failure, disconnection from the server, battery discharge and the dead battery of the helmet, the player must stop and raise the hand up - then the instructor will come up and promptly solve the problem.

18.1. Calibration failure actions

Calibration failure is signaled by the appearance of a triangular icon with an exclamation mark ⚠️ on the screen. In this case it is necessary to repeat the calibration.

The calibration process is described in Section 11.2.

If the automatic calibration function is turned on in the settings (see 11.1), when a warning sign ⚠️ appears, the player must stand in place and not move around the site until the sign ⚠️ disappears (calibration occurs automatically within a few seconds).

18.2. Actions in case of loss of connection to the network

Occasionally a helmet may lose its connection to the network. To reconnect the VR-helmet to the Wi-Fi network it is necessary to:

1) Put the enabled helmet on your head and take the right controller in your hand.

2) Press the button ∞ on the controller to open the universal menu on the helmet screen.

3) Select the "Settings" ⚙️ menu and then the "Wi-Fi Network" 🛜 menu.

4) Select the Wi-Fi network you want to connect to, enter the password, check the "Remember" option and click on "Connect".

5) After turning off or rebooting, the helmet will connect to the same network by default.

18.3. Actions when resetting the playing area

If you reset the game zone, you must reconfigure it:

1) Perform all suggested actions that are displayed on the helmet screen: create a safety system, confirm the distance to the floor, and define the play zone. You must select "Change the border for games with movement ".
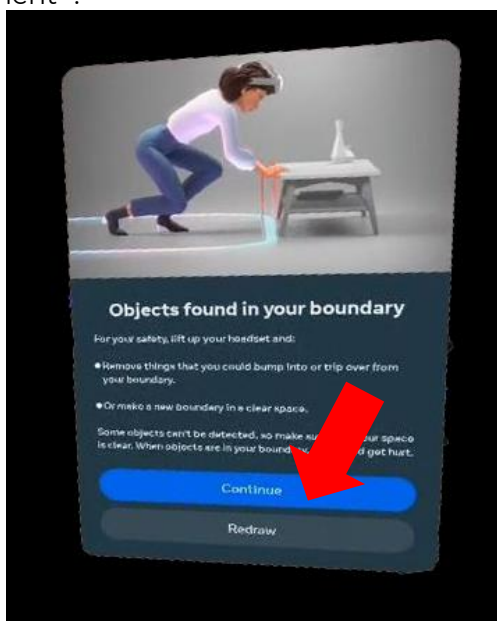
2) After confirming the boundary of the safety system in "Settings/ Developer", disable the safety system (Guardian) again by moving the slider to the left.