SUPERNOVA

Laser tag bomb

User's manual
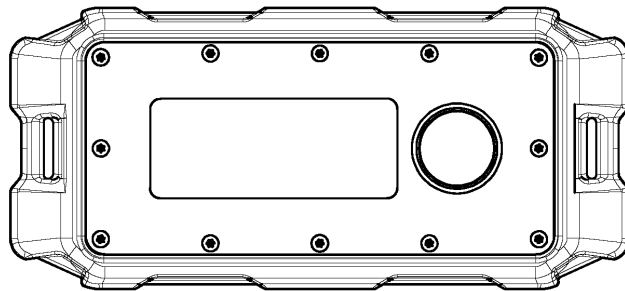
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1. Description

The SUPERNOVA laser tag bomb is an additional device that makes it possible to implement in laser tag scenarios with the installation and clearance of "time bomb", including the scenario "Bomb planting" from the computer game Counter Strike.

The device consists of two parts:

- portable bomb;
- stationary NFC platform (at least 1 pcs).

The bomb is activated/deactivated only when it is on the platform. The number of platforms can be more than the number of bombs, and they can be placed in different places on the site.

Components of the Laser Tag Bomb

A portable bomb is a device with a plastic body framed by expanded thermoplastic elastomer. The bomb has an autonomous power supply from built-in batteries, a speaker, a charger connector, an action button, an electronic timer and a carrying handle. The electronic circuit board is equipped with a Wi-Fi module for communication with the server and NFC-module to contact with the platform.
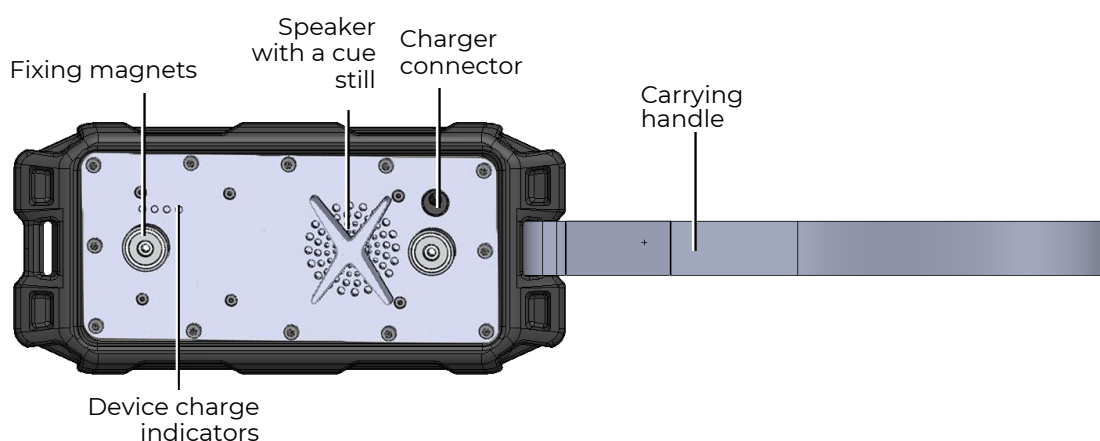
Portable bomb. Back view

The stationary platform is equipped with special mounting holes for installation on vertical or horizontal surfaces of the site. A recess in the body of the platform and built-in magnets allow the bomb to be securely fixed in case of installation. An NFC card (mark) is also embedded in the platform, which identifies the place where the bomb was planted.

SPECIFICATIONS

Parameter	Units of measurement	Number
Weight of the portable bomb	kg	1
Portable bomb dimensions (length / width / height)	m	0,30/0,12/0,065
Maximum range of defeat	m	10
Battery life	hour	till 12
The modulation frequency of IR signal	kHz	56
IR wavelength	nm	940
Wi-Fi channel frequency	GHz	2,4

Before the game stationary NFC platforms are installed in different places of the playground, and the players are divided into two teams:

- miners (or terrorists like in the game Counter Strike), by default, it is the team of red;
- sappers (special forces), by default, it is blue team.

The task of miners is to plant a bomb on one of the platforms.

The task of sappers is to prevent the planting, and to deactivate the bomb before the explosion if it is planted.

The bomb is turned on by pressing the action button for 3 seconds. After turning on, the device goes into the "Out of game" mode and the digital display shows a smoothly blinking indication in the form of horizontal segments with a colon in the middle: «--:--».

Also, in out-of-game modes, it is possible to see the charge of the built-in batteries - pressing the action button for 1 second activates four white LEDs located on the back part of the device body. The glow of 4 diodes corresponds to a charge of more than 75%. When the charge is 50 to 74%, three LEDs light up. 25 to 49% - two LEDs. Blinking of one indicator means a critical value - less than 24%.

Turning off in the "Out of game", "Bomb deactivated", "Bomb detonated", "Service" modes is performed by pressing the action button for 2-3 seconds until the "OFF" message appears on the screen.
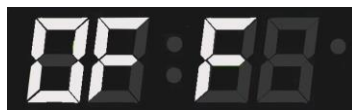
In game mode, to turn off the power, press and hold the button for 90 seconds. In this case, if you release the button during this time, the progress is reset, and to turn off you need to press the button again for 90 seconds. Also, to quickly turn off the device, you can use the function button

with one dot on the Remote Control, aiming its emitter at the front panel of the device. This method works in all modes.

2. Setting up a laser tag bomb using the Remote Control

With the help of the Remote Control, the device is configured in service mode.

Move in the service mode menu - forward
Move in the service mode menu - back
Hotspot LASERTAG
Hotspot LASERTAG-NET
Hotspot Test mode
Hotspot MGO
Hotspot TechSupport
Hotspot OTK
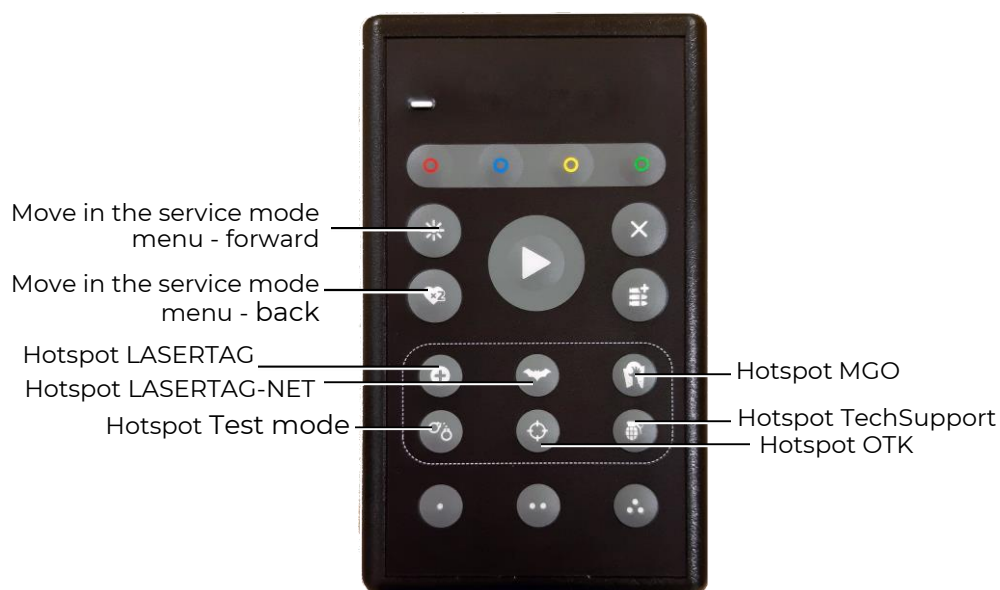
The buttons on the Remote Control for controlling the laser tag bomb

The service mode allows to change the device ID number, the Wi-Fi network to which the bomb connects automatically, and reset the device settings to default using the Remote Control.

To switch to this mode, hold down the control button on the turned off device, wait for the "-- --" indication to appear and then hold the button for another 20 seconds. The sign of the successful switching to the service mode is the indication on the board - the inscription "SEr" (service) which changes to the indication of the setting mode "CArd".

Some of the system mode settings are relevant only for the developer, including platform programming ("CArd" setting) and formatting of the built-in memory ("For" setting). To avoid disruption of the device operation, it is recommended not to enter the submenu of these settings.

You can navigate in the main menu of the service mode using the buttons on the Remote Control "Change the power of the IR-beam" ☀ (forward) and "Double health units" (back).
.

Reset to default settings
Change bomb ID   Search for a access point
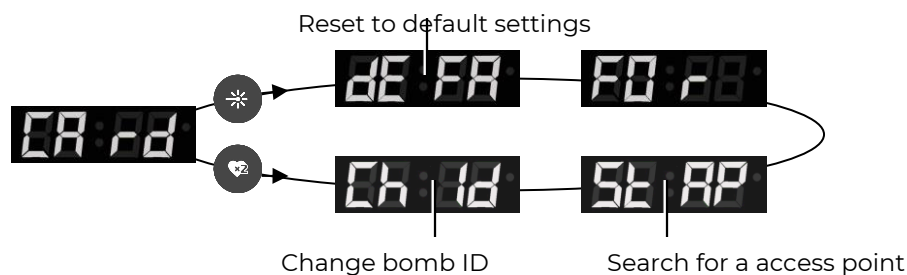
Moving in the main menu of the service mode

2.1.   Change laser tag bomb ID

Pressing the "Double health units" Remote Control button once opens the "ChID"(change ID) setting – allows you to change the device ID. To enter the mode, you must press the button on the Remote Control "Start game" ▶.» ▶ . The screen displays the device number in the "I_n" format, where n is a number from 1 to 999. By pressing the Remote Control buttons

"Change the power of the IR-beam" ✳ (up) and "Double health units" ❤2 (down) select the required number. Apply by pressing the "Start game" button again.

Ch : Id   **16 : 12**

To return to the main menu, click on the "Remove player" ✕ button.

2.2. Search and connect to the access point

Supernova is configured in such a way that it connects to the default access point LASERTAG. If it failed to connect to it, the device selects the next point from the list, then tries to connect to the default access point again and then repeats this algorithm in a circle. However, if the games using the bomb take place on several playgrounds at the same time, they must be connected to different access points. You can make another Wi-Fi network the default access point.

In the main menu, this setting is indicated by the inscription «StAP» (start access point). To enter this setting, after switching the device to the service mode, press twice the "Double health units" ❤2 button of the Remote Control.

St : AP

After entering the menu using the Remote Control button "Start game" ▶ «AP_n» (access point_n) is displayed on the timer screen, where n is a specific number of the access point.

The following access points correspond to the numbers on the screen:
0 – TechSupport, 1 – Testmode, 2 – TDM (point for internal developer tests), 3 – MGO, 4 – OTK, 5 – LASERTAG, 6 – LASERTAG-NET, 7, 8 – points are occupied for internal developer tests, do not use.
To set a new access point "by default", use the buttons "Change the power of the IR-beam" ✳ (up) and "Double health units" ❤2 (down).

AP_n" inscription blinks while the number is being searched. It means that the device is trying to connect to the servers turned on at that moment. If the connection is successful, the inscription stops flashing. In such way, you can monitor possible connection options at the same time.

After setting the desired number of the hotspot, press the "Start game" ▶ button.

The confirmation of successful assignment is the inscription "dOnE".

dO : nE

To return to the main menu, click on the "Remove player" ✕ button.

It is possible to quickly change the access point in the out-of-game mode - using the buttons on the Remote Control. To do this, you need to hold down the control button, direct the Remote Control emitter to the front panel of the bomb and press one of its buttons:

Remote Control Button	Name	Access point name	Display on the bomb display
⊕	Medic preset	LASERTAG	`LE:88`
⊙	Hostage preset	Test mode	`E8:nn`
⊕	Sniper preset	OTK	`OE:H8`
⊕	Stormtrooper preset	TechSupport	`E5:88`
⊕	Vampire preset	LASERTAG-NET	`LE:n8`
⊕	Zombie preset	MGO	`nn 98`

❗ **It is necessary to control that the bomb and the server are connected to the same access point.**

2.3. Restore device settings to default

When delivered, the laser tag bomb has a default setting, with the following parameters:
- Device ID – 12;
- The red team (miners) plant a bomb.
- The blues (sappers) prevent miners, and if a bomb is planted, they detonate it.
- The time for pressing the button after the confirmation shot is 3 s.
- Explosion timer time - 1 min.
- Demining time is 10 seconds.
- Damage when hit by Wi-Fi - 100 health units.

Changes made to the settings from the computer program are saved after the device is turned off and subsequently valid in the game without using the server. In this case, you cannot change anything using the Remote Control. But you can return to the default settings.

To restore the settings, after turning on the device in server mode, direct the IR emitter of the Remote Control to the front panel of the bomb and click on the "Change IR beam power" ☀ button.

The message "dEFA»(default)" will be displayed on the screen press the "Start game" ▶ button on the Remote Control. The inscription "StAr" (start) will be displayed. To reset settings, press the "Start game" ▶ button on the Remote Control again. The message "dOnE" will be displayed on the screen as evidence of a successful reset.

`dE:FA` ▶ `SE:Ar` ▶ `dO:nE`

To return to the main menu, click on the "Remove player" ✕ button.

After successful application of the settings, turn off the device (hold down the control button for 2-3 seconds) - the screen displays the inscription "Off", and after that release the button. Then you can turn on the bomb again in a normal mode

A laser tag bomb in games can be controlled by both a Remote Control and a computer program with a server. Of course, the possibilities to configure and control the device in these cases are different.

3. Algorithm for using a laser tag bomb controlled with the Remote Control

The buttons on the Remote Control for controlling the laser tag bomb without a server

3.1.   Launching a bomb into a game and changing the volume of the speakers

The bomb is turned on by pressing the action button for 3 seconds. In non-game mode, you can change the volume of the device's speaker by directing the emitter of the Remote Control to the front panel of the laser tag bomb. Pressing the "Medic Preset" ⊕ button increases the volume, while pressing the "Hostage Preset" button decreases the volume.

The instructor directs the emitter of the Remote Control to the front panel of the portable bomb and presses the "Start game" ▶ button. The bomb switches to the "In game" mode, which is indicated on the bomb timer dial by the stripes moving clockwise.

The bomb is handed to one of the players on miners team and the round starts.

3.2.   Bomb planting

The bomb is planted as follows:

1. After the player with the bomb and who still has health units, manages to approach the planting point - one of the stationary platforms (to the plant - as it is called in CS), the player must insert a portable bomb into its socket (the button should be on the right).

2. The device switches to the "Bomb installed" mode - the numbers on the display start blinking, showing the time at which the timer is set.

    If in this mode the bomb is removed from the platform, it switches to the previous mode "In the game" and the corresponding indication turns on.
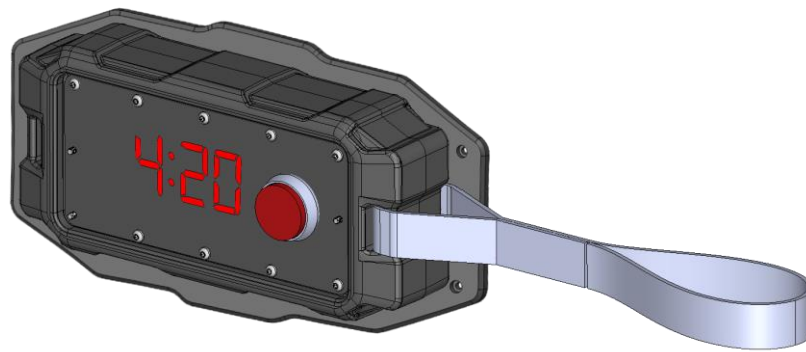
3. After a few seconds, which are accompanied by a sound signal, a hint will appear on the bomb screen - the inscription "Shot". It says that the player from the miners team must confirm that his individual kit is active - it is necessary to shoot from his tager at the bomb receiver located behind the front panel of the body.

4. The successful confirmation is indicated with a green LED in the upper right corner of the screen and then the next hint appears on the screen - the inscription "Hold". If a player of the sapper team shoots at the device, the LED turns red, and the device doesn't switch to the next mode.

5. Next, you need to press and hold the action button for 3 seconds. The bomb activation process is indicated by the absence of flashing of the timer display and the sound from the device speaker. If a player of miners team did not hold the button for 3 seconds, or at that moment a player of sappers team fired at the bomb, the activation process will be canceled. The miner should shoot the bomb again and repeat the pressing of the action button.

6. As soon as the bomb switches to the "Bomb is activated" mode, the countdown timer starts - the display shows the time decreasing every second until the explosion. At the same time, a short beep will be played by the bomb speaker every second. During the last 10 seconds before the explosion, the frequency of signal playback increases up to several times per second.

7. If during the operation of the clockwork the bomb is not deactivated, an "explosion" occurs - the inscription "Booo" blinks on the display, LED flashes with overflow of colors, a corresponding sound is played and all kits within a radius of about 10 m are hit via the Wi-Fi channel. The amount of damage is selected in the Lasertag Operator program (Scenario Settings/Additional Devices/Bomb Settings). The default is 100 health points.

The instructor can forcibly stop the clockwork with the help of the Remote Control - it is necessary to direct its emitter to the front panel of the bomb and press the "Remove player" ⊗ button. The device switches to the "Out of game" mode. To reuse the bomb after that, it must be removed from the platform and re-started with the remote control.

3.3. Bomb clearance

If sappers team failed to prevent the installation and activation of the bomb, it must be deactivated. Such procedure can be done while the timer is running, but not later than the time set in the "Clearance time" parameter of the bomb settings in the program (10 seconds by default).

To deactivate the bomb:

1. The player of the sapper team, who approached the planted bomb, also needs to confirm the activity of his kit - shoot from their tager into the front panel of the device. The device displays the "Hold" hint, but the device timer continues to count down.
2. The player is given 3 seconds to press and hold the action button for a set clearance time (10 sec by default). If the sapper does not have time to hold down the button in 3 seconds, the screen displays the inscription "Shot" again and for the next attempt it is necessary to repeat the shot from the tager. The device reacts to the shots of miners with a red LED glow and does not switch to the next mode.
3. If the clearance process is started when the timer has less time than is necessary for clearance (10 sec by default), the explosion still occurs, i.e. it is impossible to deactivate the device during this time.
4. In the operating mode of the clockwork, there is a "protection against violations of the game rules": if at this time the bomb is removed from the platform, the sound "Alarm" is played and the device switches to the "Out of game" mode. The inscription "Eror" (error) is displayed and the instructor must restart it from the Remote Control to continue the game.

5. Successful deactivation of the bomb is accompanied by a timer stop and a special sound signal, the screen displays the inscription "SAFE", the LED glows blue.

To reuse the bomb, it must be removed from the platform and activated using the Remote Control

3.4. Algorithm for using a laser tag bomb controlled with the Remote Control and with default settings

The bomb is turned on by holding down the button for 3 s

The instructor uses the Remote Control to launch a bomb into the game

The instructor hands the bomb to the player from the miner team

The round starts

The player places a bomb on one of the platforms

It is necessary to shoot the bomb

3 s

Within 3 s, hold down the button for 3 s

The timer starts for 1 minute

To demine the bomb, the sapper must first shoot the bomb

10 s

Within 3 s, hold down the button for 10 s

Is the bomb demined?

No Miners win

Yes

Sappers win

4. Bomb in laser tag games using the server and Lasertag Operator program

Using a computer program allows you to change the settings of the bomb, control it, get information about the current state of the device, set number of points awarded for the players' effective actions, and automatically finish the round when the specified condition is reached.

4.1.   Changing settings

To add a laser tag bomb Supernova to a scenario, go to the ADDITIONAL DEVICES tab and click on the corresponding button at the bottom of the window.

After the device tile appears in the tab window, you need to click on it. A menu appears in which you can exclude the bomb from the game, change its identification number (ID), and open the settings window.

In the settings window, you can select:

- bomb operation mode (laser tag or paintball);
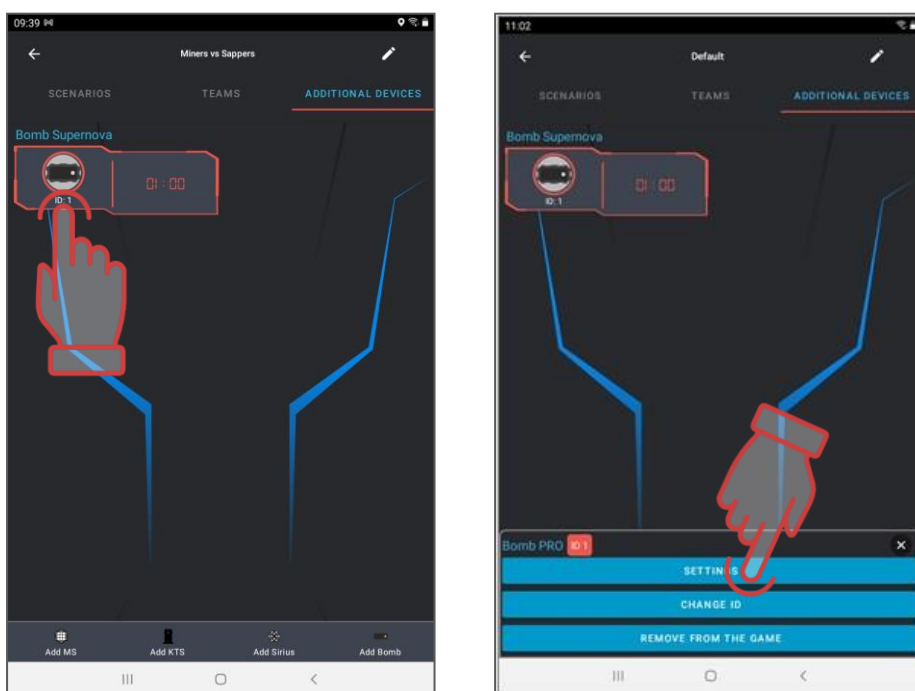- the time of operation of the clock mechanism after the bomb is activated by miners (from 10 to 600 seconds);
- the time given to the demining team to clear an already activated bomb (from 2 to 60 seconds);
- damage (from 0 to 999 health units);
- the color of the teams of miners and sappers (red, blue, yellow, green).

The "paintball" mode does not provide for confirming the activity of the player's kit with a shot from a tagger before planting and demining a bomb. Also, there is no need to start with the Remote Control button - after its turning on, the bomb is ready to be installed on the platform. The mode is saved even after the device is turned off and on again – until this parameter is changed in the program.

Damage during a bomb explosion is carried out via Wi-Fi channel and affects players of all teams at the time of explosion within the signal range (about 10 m).

4.2.   Scenario settings

The program allows you to accrue points for actions with a bomb. To do this, in the "Scenarios" tab, go to the "Supernova scoring" section. Here you can set the points accrual (from – 999 to 999):

- for the explosion (i.e., sappers could not clear the bomb in the allotted time);
- for demining;
- for activation (accrued to the players of the team of miners for activating the bomb, even if it did not explode);
- for the prevention of installation (accrued to the team of sappers, if at the end of the game on the timer the miners could not install and activate the bomb).

To change the numerical value, you need to briefly click on the parameter line.

Points are accrued to the team whose player performed an effective action with the bomb.
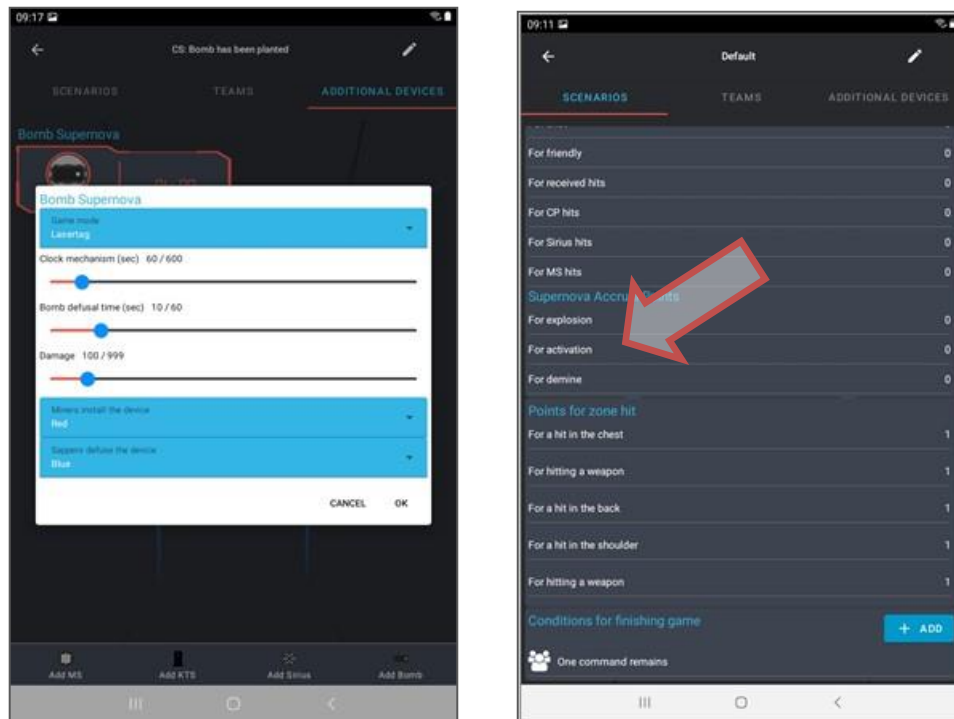
To automatically end the game (not by timer), add the finishing conditions regarding the laser tag bomb. There are two of them:

- Detonate the bomb;
- Clear the bomb.

Each of them has an additional setting – the number of necessary explosions or demining to finish the round (from 1 to 400). This parameter is required primarily for scenarios using multiple bombs.

You can set values other than one with one bomb on the playing ground. But due to the specifics of the laser tag bomb design, it is not possible to fully automate the re-installation process. After each explosion, the instructor must remove the bomb from the platform, move the miners to the starting position, launch it using the Remote Control or the program, and then transfer the device to one of the players.

In addition, it is possible that as a result of a skirmishing, without installing a bomb, one of the teams will be completely deactivated. Accordingly, it will not be able to interfere with the mission of the remaining team. For such cases, another condition for finishing the game is added to the scenario – "One team left".
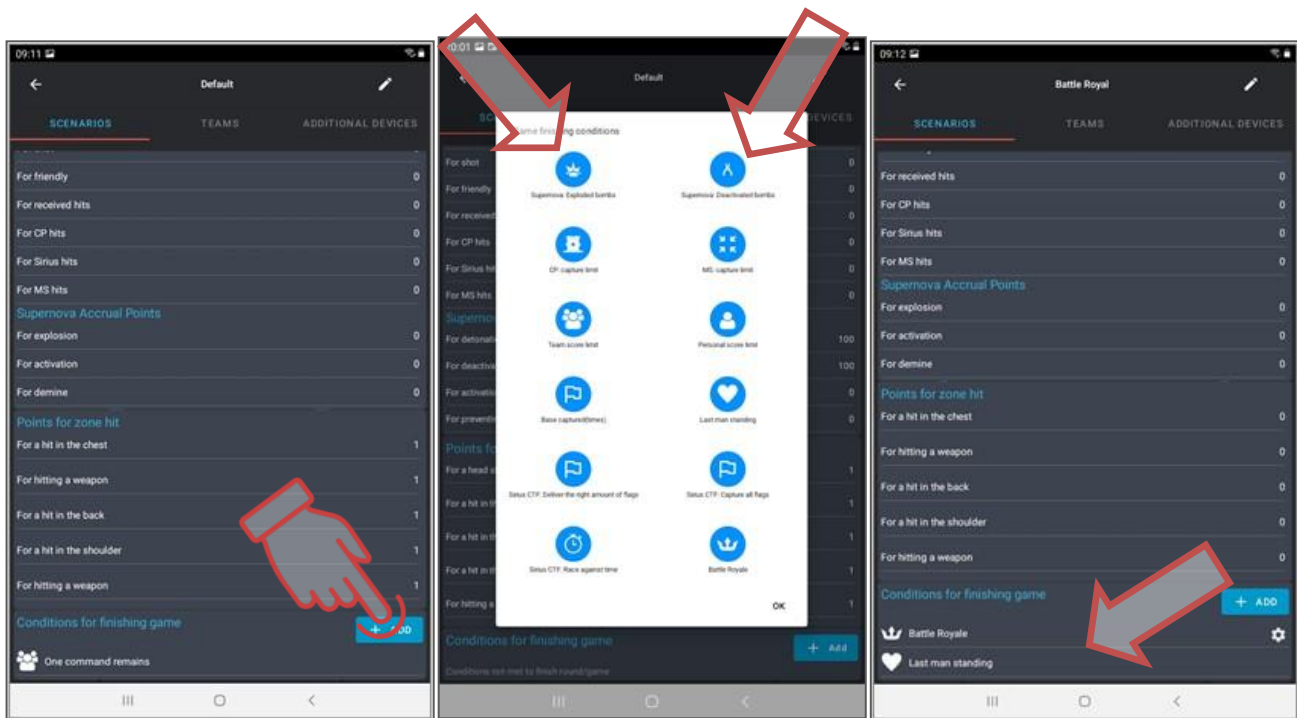
4.3. Description of built-in scenarios

In the Lasertag Operator program, two scenarios using a laser tag bomb are already built in.

4.3.1. «CS: Bomb has been Planted»

With the advent of SUPERNOVA bombs in the line of additional devices produced by the company, it became possible to implement in laser tag the "Bomb/Defuse" scenario from the computer game Half-Life: Counter-Strike. As in CS, in the "CS: Bomb has been Planted" scenario, a team of miners (by default it is a red team) must plant a bomb on one of two platforms located in different places of the playing area and activate it within the round. The task of the sapper team (blue team) is to prevent the planting, and if it was not done, to clear the bomb.

This scenario is set up as close as possible to its computer original:

- both teams have the same settings (100 health points, 25 weapon damage, unlimited cartridges);
- the one of the additional devices used is only the Supernova laser tag bomb;
- bomb planting time - 3 s (not adjustable);
- clockwork timer - 1 minute (can be increased up to 10 minutes);
- clearance time - 10 s (can be increased up to 60 s).
- there is no respawn and treatment - the affected players leave the playing area;
- points for hitting an opponent are not counted.

The round time is set to the maximum (60 minutes), but since there is no respawn or treatment of players, the games of this scenario usually end quite quickly.

The game ends when one of the specified conditions is met:

- "Detonate the bomb" - the team of miners wins;
- "Clear the bomb" - the sapper team wins;
- "One team left" - the team that deactivated all the opponents wins.

4.3.2. «CS: Detonator»

Another one, more complex scenario from the Counter-Strike series "CS: Detonator" reveals the possibilities of configuring and controlling the SUPERNOVA laser tag bomb using a computer program. The differences from the "CS: Bomb has been planted" scenario are:

–   teams have different settings, such that a team of miners has a starting amount of health points of 75, and sappers have - 100. But those miners who are at the SIRIUS bases are the first to respawn every 5 seconds, and the sappers - every 15 seconds;

–   after planting a bomb, the time for mine clearance for sappers is increased - 180 s;

–   players have 2 weapons each - an assault rifle and a pistol (with a reduced range).

The recommended round duration is 15 minutes.
The game ends when one of the specified conditions is met:

–   "Detonate the bomb" - the team of miners wins;

–   "Clear the bomb" - the sapper team wins;

–   "One team left" - the team that deactivated all the opponents wins.

Due to the fact that players have the opportunity to re-join the game after deactivation, it is possible that the miners are not able to plant the bomb and start the clockwork until the end of the round. In this case, the instructor must declare the team of sappers the winner.

4.4.   Creating custom scenario

In addition to editing built-in scenarios, the program provides the ability to create and configure your own scenario using the Supernova bomb.

To create your own scenario, you need:

1.   From the main menu, go to the "Scenarios" section.
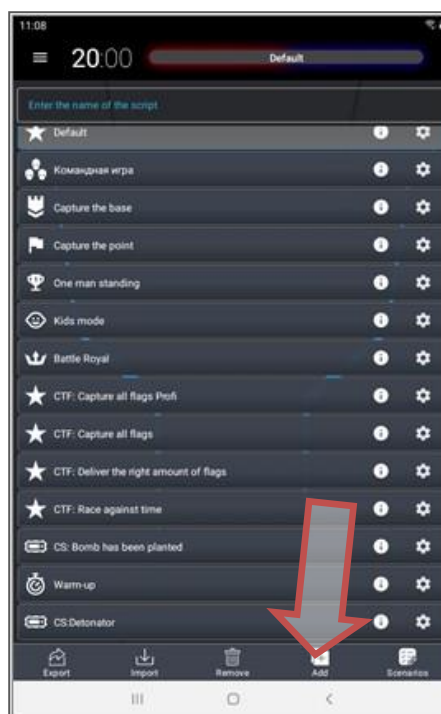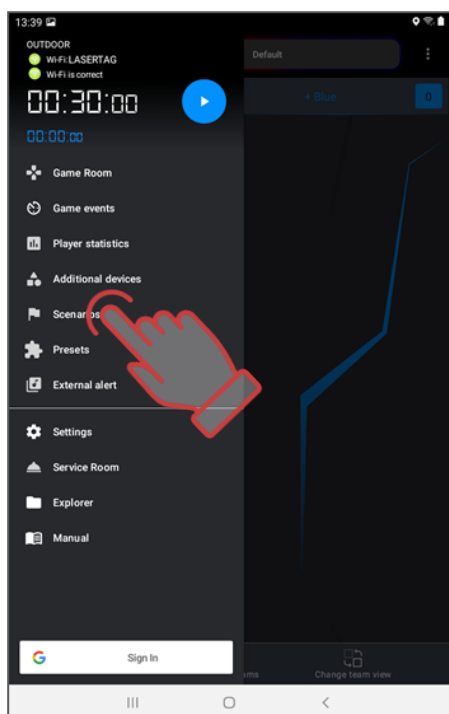
2.   Click on the ADD button in the bottom of the screen.
3.   Enter the name of the new scenario. Press the NEXT button.
4.   Select the scenario installed in the program, on the basis of which a new one will be created. To simplify the setup, you can use the "CS: Bomb Installed" scenario, since it is already adapted for the use of the Supernova bomb. Press the OK button.
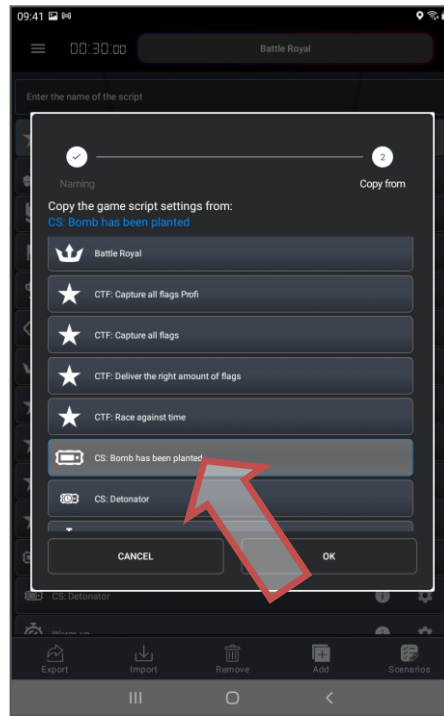
5. In the "SCENARIOS" tab, if necessary, give a brief description (the length of the text is up to 250 characters). Click on the icon with the "tick".
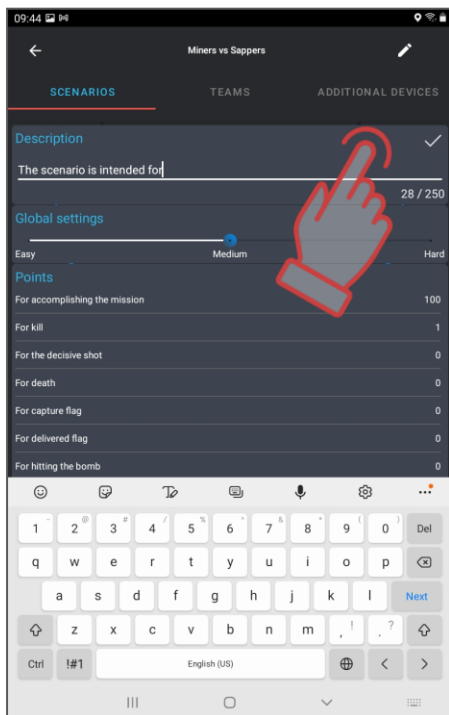
6. Set the difficulty level and volume of sound effects.

7. In the "Supernova scoring" section, set the number of points awarded for the explosion, for activation and for clearance (from 999 to +999, by default 0 or 100). If necessary, add points for other parameters, for example, for completing a mission, deactivating an opponent, etc.

8. At the bottom of the tab in the "Game Completion Conditions" section, click on the "+Add" button. If the scenario is made on the basis of "CS: Bomb is set", the conditions for the end of the scenario are added by default, if not, you need to select 3 conditions

for the completion of the scenario: "Explode bombs", "Clear bombs" and "One team left". Press the OK button.
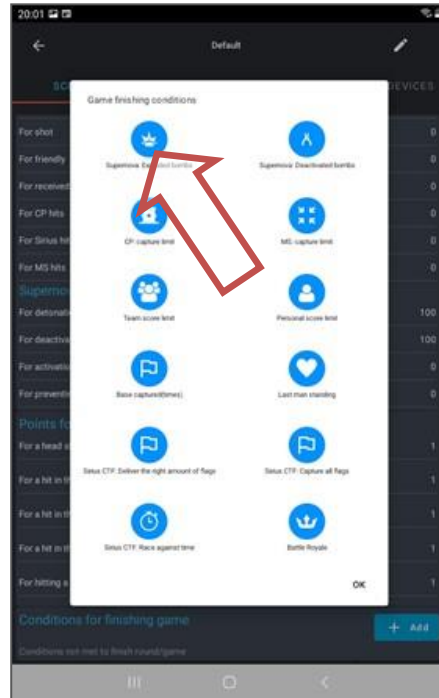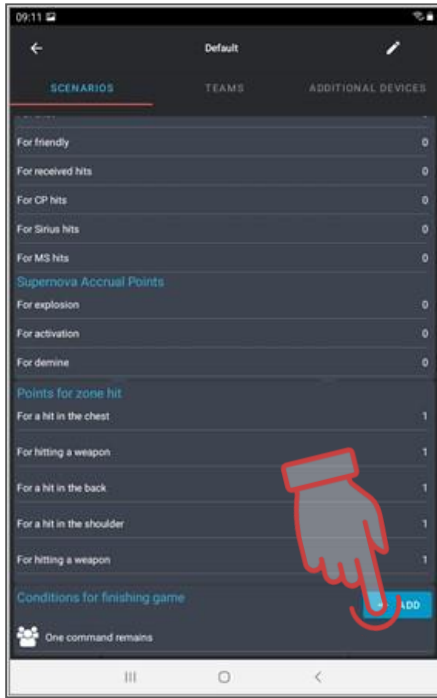
9. In the added conditions, "Explode bombs" and "Clear bombs", if necessary, click on the line with the name of the condition. A window opens in which, either by scrolling or tapping on a number and typing on the keyboard, you can select the required number of explosions or demining (from 0 to 400, by default 1). As a rule, for a short round (up to 15 minutes), set a value equal to the number of bombs used in the scenario.
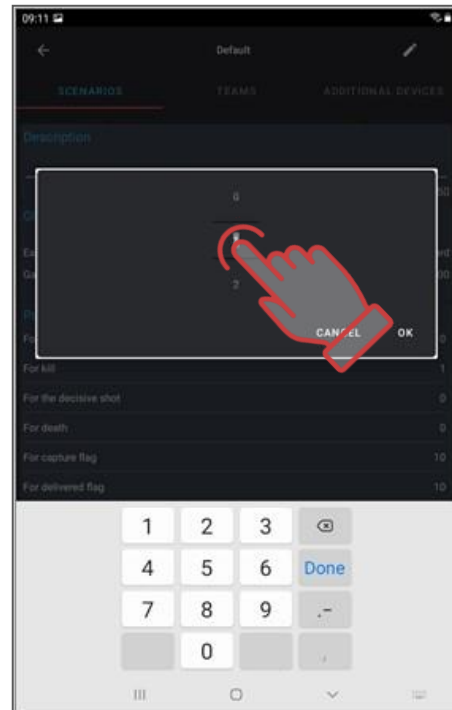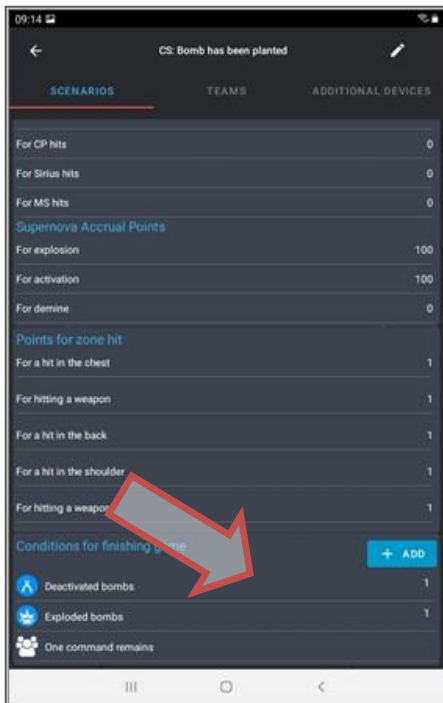
10. Go to the "TEAMS" tab. Select the color of the teams participating in the round and adjust the kits either in the "General Settings" or "Team Settings" section, if there is a need to balance the teams. To save the changes, click on the "Apply" button.

11. Go to the "ADDITIONAL DEVICES" tab. In the lower menu, click on the "Add bomb" button. In the "Bomb - Supernova" field, the device tile appears. In addition to the bomb, any additional devices in the amount of up to 14 units each can be used in the scenario.
12. Click on the tile - the bomb settings menu appears.
13. Here you can change the device ID, remove it from the scenario and configure it.
14. Click on the "SETTING" inscription. Set the parameters of the clock mechanism – this is the time after which the bomb is triggered after its installing. The range is from 10 to 600 seconds (by default 60).
15. Set the clearance time. In fact, this is how many seconds a player of the demining team needs to hold the bomb control button until it is neutralized (1 - 60 seconds, by default – 10 seconds).
16. From the teams participating in the round, choose the colors for the teams of miners and sappers.
17. Set the "Damage" parameter to the number of health units that are deducted from the kits of players affected by the exploded bomb. When using several bombs in the scenario, it is recommended to set the damage to less than half the starting value of the health units – so after the explosion of the first bomb, the round continues.
18. Press the OK button.
19. If several bombs are used in the scenario, repeat the procedure.
20. Return to the scenario selection window.
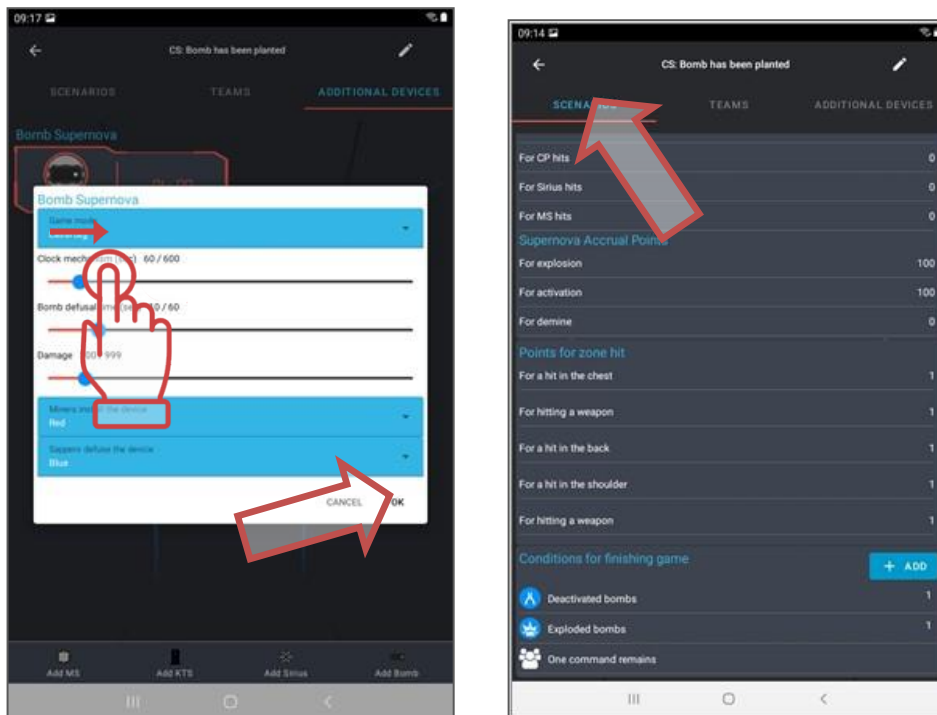
The game using the Bomb device allows different scenarios. For example, you can configure each team to have its own portable bomb in the round. In this case, a team of miners and sappers is selected for each device, and then the color of the bomb tile design in the program will correspond to the color of the team of miners.

You can create a scenario where the game involves not two, but three or four teams. Each has its own bomb, marked with color markings (for example, with colored tape). In the settings of each bomb, a different color of the miners' team is selected, and in the settings of the color of the sappers' team, "All" is selected. Then the player of any team can clear the bomb. And in order to prevent clearing of their own bomb, the player needs to control the color of marking.

In long-lasting laser tag games, to fulfill the condition of finishing the game, you can make more bomb explosions and clearings than amount of bombs themselves. In this case, after the explosion or clearing by the instructor, the bomb is removed from the platform, transferred to the

starting position of the miner team and launched into the game again. Each successful action of the teams is reflected in the final statistics.

4.5. Round start and gameplay display

Before the game, the instructor must tell the players about the actions of each team, the differences in the configuration of the kits, the number and location of fixed platforms, and the conditions for finishing the game.

The sequence of the round according to the scenario using a laser tag bomb is as follows:

1. Select the required scenario by clicking on its line ("Scenarios" item).
2. When you go to the "Additional devices" tab of the scenario settings, make sure that the Supernova bomb is added to the scenario and that the ID number of the device corresponds to the ID number of the real device used in the game. Change if necessary.
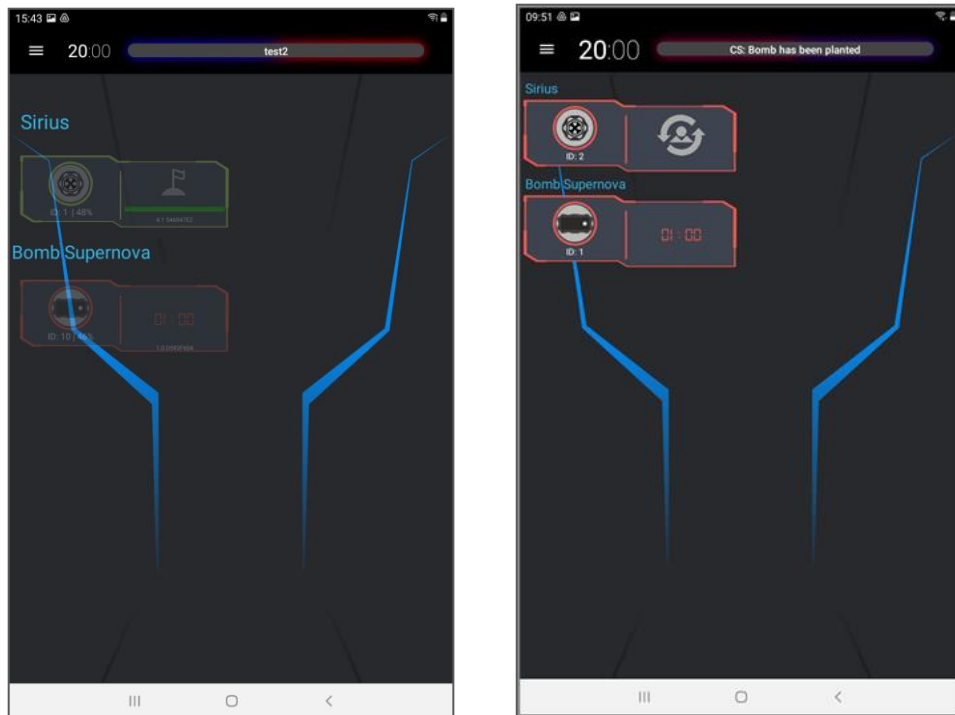
You can check the correspondence by going to the main menu item "Additional devices" - the tile of the connected bomb should be displayed in full color.

If the tile is translucent, you should either change the ID of the device itself or change the ID of the bomb in the scenario.

3. Turn on players' kits, the Supernova bomb, as well as other additional devices if they are present in the scenario settings.
4. Distribute the kits to the teams.

It is necessary to maintain a balance in the composition of the players, depending on the task of the team in the scenario, the location of platforms and shelters on the playground.

5. Set the round time and, if necessary, the start delay time.
6. Let the game start. As a rule, the game starts at the bases of teams.

Approximate plan of the starting location of teams and fixed platforms on the arena laser tag playground:

Sappers' base

Fixed platforms

Portable bomb at the miners' team
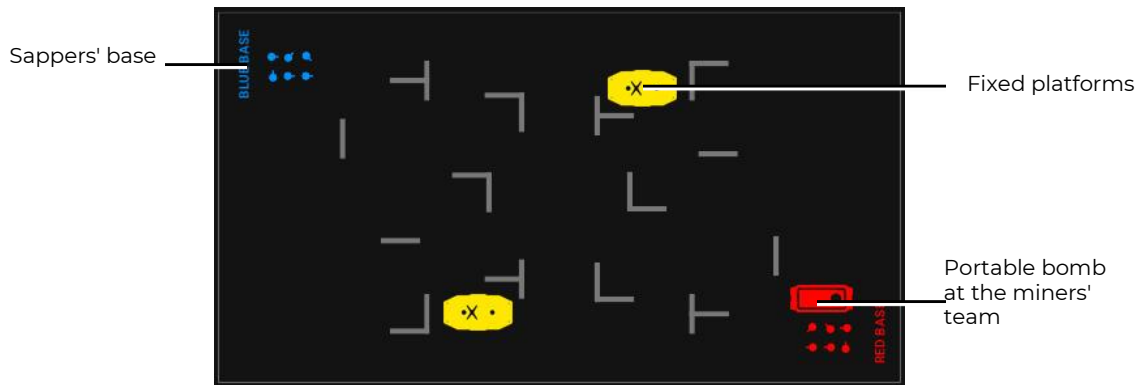
The algorithm of actions of players according to the scenario using a laser tag bomb in the server game is similar to the game with the Remote Control (see chapters 3.1-3.3).

As in the game with Remote Control, players clearing a bomb should remember that if the timer shows a time shorter than it is necessary to hold the button before deactivation begins, it is no longer possible to deactivate it.

The difference is that the application monitors the presence of health units in the player who installs or clears the bomb – if, while holding the control button, the opponents deactivate the kit, the red LED lights up instead of the green LED and the timer does not stop. To resume clearing, another player of the sappers' team should repeat this procedure.

When using a server, the SUPERNOVA bomb supports the principle of parallel games. When the "Parallel game" parameter is turned on (Main menu/Settings/Global settings) in the control programs of different playgrounds, at the time of start, the application transmits to the device a list of ID numbers of all the kits participating in this round. During the game, the bomb reacts only to the shots of these players. Accordingly, information about the bombs involved in the scenario is transmitted to the kits, and they respond only to bomb explosions from the transferred list.

When the game is manually stopped or the laser tag bomb is restarted, the list of devices involved in the round is cleared

During the round, the application displays the status of the bomb. Each platform has an NFC card with its own number. When a bomb is installed, the reader receives data from the card, and information about its number is transmitted to the server.

After that, the platform icon and its number appear on the device tile.
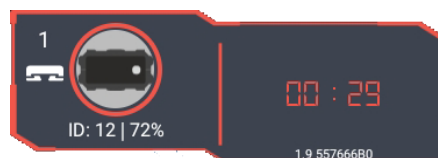
When the bomb control button is pressed, a countdown timer is displayed in white on the tile during installation or clearance. If the player is deactivated at this moment, the inscription "Error" appears.

After activating the bomb by miners a countdown timer is activated on the tile, in sync with the timer on the bomb itself.

If you try to remove a bomb from the platform while the timer is running, in addition to the sound signal on the device itself, a warning appears on the bomb tile.

To reuse the Supernova bomb, you must exclude it from the game and then launch it in the game again.

The round can end automatically either when one of the conditions is met or at the end of the time, depending on the settings.

Reuse of the bomb is possible only after removing the device from the slot of the fixed platform and transferring the team of miners to the starting position.

5. Safety rules

When using a laser tag bomb, follow the next rules:

During the game, the bomb should be carried around the playground using a special belt. Ensure that an accidentally dropped device does not injure a player.

Securely anchor fixed platforms to walls, trees, or other surfaces.

Protect the body from excessive mechanical loads.

Do not allow moisture inside the device. If it happens, turn off the equipment immediately and dry it for 4-5 hours at room temperature.

If the equipment was at a below freezing temperature, it should be kept warm for at least one hour before using it in heated rooms, in order to avoid damage to the electronic components.

Observe the safety precautions for handling lithium-ion batteries.!

Do not bring the battery to a minimum charge. Frequent recharging is preferable - this does not harm the battery.

Use only a standard charger and original batteries. Not following the instructions may lead to battery and equipment damage, cause a short circuit, fire, an explosion hazard, etc.

The temperature mode of the charge of lithium-ion batteries affects their capacity, which decreases when charging in the cold or in the heat. The charge can be carried out at an ambient temperature ranging from +4 °C to + 40 °C, but the optimum charging temperature is +24 °C.

It is not recommended to keep the battery charger in a power outlet if it is not being used for its intended purpose at this time.

🛈 **Do not leave equipment unattended while charging!**

If a specific odor, heat, smoke is released when charging the battery, or the case is deformed, immediately disconnect the charger from the network, and the battery from the charging device.

The charging cycle for fully discharged batteries is 1,4 hours for a Bomb.

Lithium-ion batteries are not subject to long-term storage and are designed for active continuous operation. From the moment of manufacturing, their service life is 2-3 years, regardless of the intensity of operation.

If there is a need to store unused batteries for more than 1 month, they must be charged up to about 50%. Long storage in a discharged condition can lead to battery failure.

🛈 **Do not dispose of lithium-ion batteries in trash cans!**

Technical support contacts are listed on the company website https://lasertag.net/support/.