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#seriousfun

User Manual
SQ Air 10
Interactive Target

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multiple-time French Champion

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Preface

The SQ Air 10, designed for sport shooting with air pistols and rifles (up to 7.5 joules), is a new-generation electronic target, approved by the ISSF for all official disciplines.

Interactive Target

Shots are detected in real time on a transparent plate that protects both the screen and the measuring plate.
Connected to the SQ Touch tablet, the target displays visuals, calculates scores, and gives access to a wide library of training exercises and games.

A Target for Everyone

From beginners to competitors, every shooter can improve, analyze their shots, and train in a fun or structured way.
 Children, adults, enthusiasts, or athletes – everyone finds their place.

ISSF-Approved Target

Developed with the CEA List and protected by 4 international patents, SPORT QUANTUM's technology achieves accuracy beyond 0.1 point (125 micrometers), fully compliant with Olympic standards.
 Additional national approvals complement the international recognition (FFTir, NSRA, Norway, Sweden, Czech Republic,...).

Software

Sport Quantum products include four main components:
The **App**: An application running on a tablet (APK). Available for Android version 8 and above.
The **Supervisor**: A computer application (SynQro). Available for Windows, macOS, and Linux.
The **Firmware**: An application running directly on the target.
The **Online Web Portal**: A web-based application accessible at https://sqm.app, mainly used for QR Code export and the upcoming SQ Online platform.

New functionalities of the application

App 3.0.0: Updates (1/2)

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A genuine virtual coach accompanying you.
 Transform your training sessions (pistol and rifle) into comprehensive guided programs.
The application provides a step-by-step guide for 40 minutes to 1 hour, featuring clear objectives, diverse exercises, training contracts, personalized precision shots, and even games to maintain your motivation.
The library of session themes will be enhanced in forthcoming releases of your SQ application.

New objectives and areas to diversify your training
Explore additional possibilities with innovative formats:
Swedish Drop Targets (SQ Air 10)
25-yards Scottish target (SQ Fire and SQ Fire XL)
Danish Target (SQ Fire and SQ Fire XL)
League Shooting (SQ Air 10)
SQ Pano Finals: Rapid Fire Pistol Finals – 5 Targets (PanoramiQ)
You also gain from a variety of innovative training options:
Unlimited sighters in ISSF Classic (all targets)
- Completely customizable and configurable standard pistol training.
- New cardboard variant featuring two vertical, overlapping targets, asymmetrical lighting, and a blurred target.
Precision Shooting Modules - Training - Agreements:
- Empty box agreement
  - Announcement (to assess the anticipated landing point of the shot)
  - Pause at the beginning of the shot (postpone the display of the shot and its outcome to avoid distraction).
  - Declaration of points (specific tasks at the beginning and conclusion of the match)

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Training tools

- Dynamic target entry (to have a more automatic and straight target entry)
- Vanishing target (aim when the target is visible and shoot when it is invisible)
- Trigger pull management (Use the steps to check your trigger pull / aim coordination)

Export your score

SQ Air 10, SQ Fire and SQ Fire XL allow you to easily export and share your shooting results on social networks directly from a smartphone thanks to a QR code generator.
You can access detailed statistics about your shooting session as well as exports in PDF and CSV.

More comfort and simplicity in everyday life

The tablet automatically turns off after 2 hours of inactivity to preserve the battery
Simplified network configuration: directly via the App or via USB
Easy updates via the app or USB stick

Simplified user experience

The app now also speak Swedish, Polish and Korean: another step towards an ever more international shooting community.
Even smarter settings
The color of the last impact now reflects its value
A new impact direction icon is available (you can choose between the old and new design)

Ammunition tests

For SQ Fire and SQ Fire XL: enter your ammunition lot numbers, the ammunition brand, and the firearm model, and generate a detailed PDF for each test.

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Initiating and Configuring your SQ Application
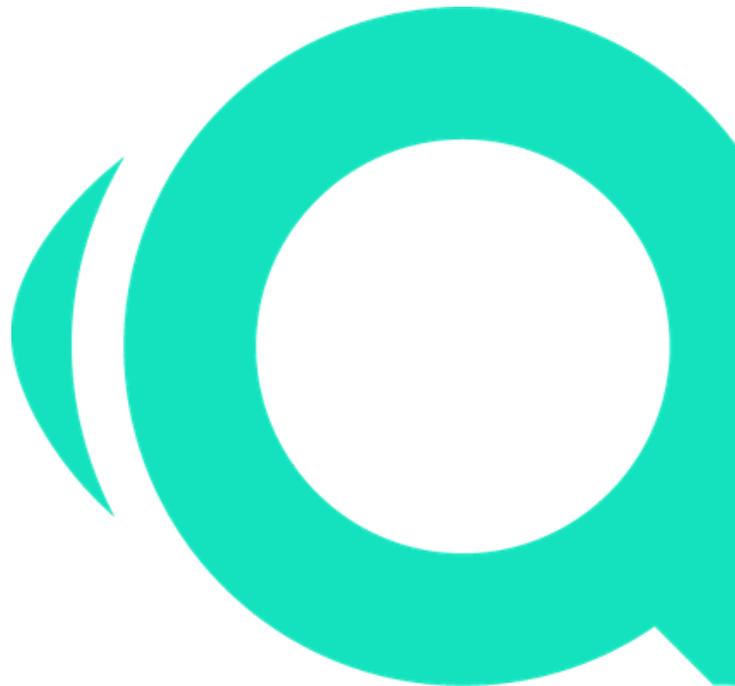
Getting Started: Launch the application and establish a connection to the target.

![sportquantum logo]

Upon initiating the SQ Touch tablet, if the application does not launch automatically, please select the SQ application icon. The application should connect to the target automatically.

If you encounter this page:

If you are utilizing a wired connection, ensure that the cable is securely connected to both the SQ Touch and the SQ Air 10.

If you are utilizing a Wi-Fi connection, please consult the Wi-Fi settings
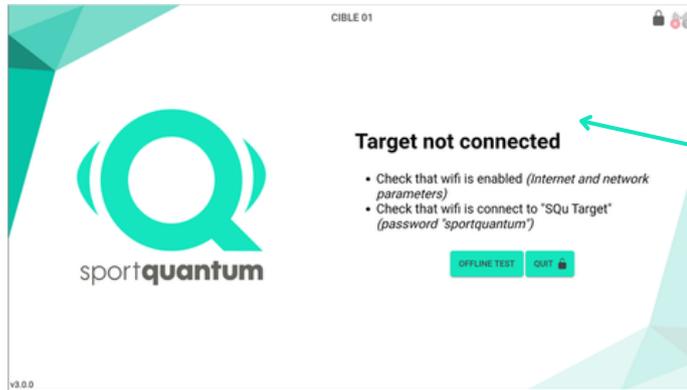
IIf the SQ Touch tablet is not connected to the target:

- If you are using a wired connection, check that the cable is properly plugged into both the SQ Touch and the SQ Air 10 target.
- If you are using a Wi-Fi connection, please refer to the Wi-Fi settings

![sportquantum logo]

SQ Application Home Page

Unlocking greyed-out/locked functions

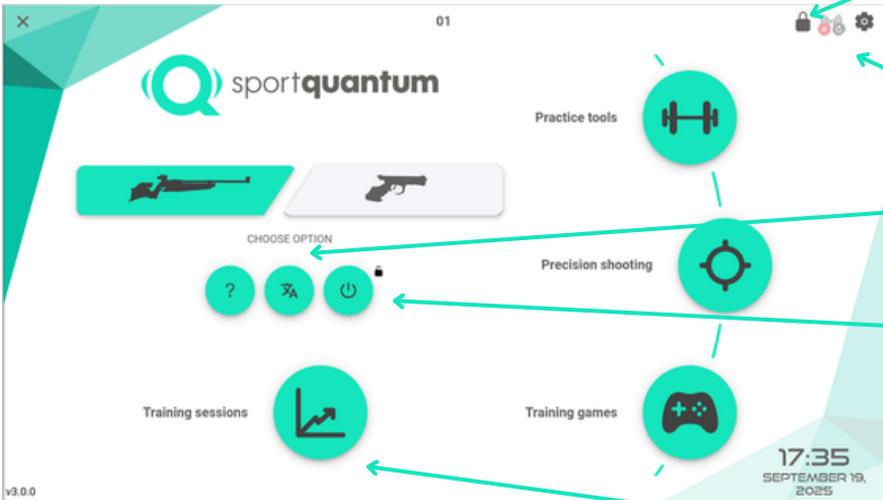**Application and Target** Configurations

Connection status to target (green = operational; red = connection lost)

Useful links/ Additional information and language selection

Power down **the target or tablet.**

⏻ STANDBY DEVICE

⏻ SHUTDOWN TABLET

Thematic **training session**

Application and Target Configurations ⚙️

- Click ⚙️ to access the target user's tablet settings page and retrieve system information.
You have access to four menus, the details of which are outlined in the subsequent pages of this manual.
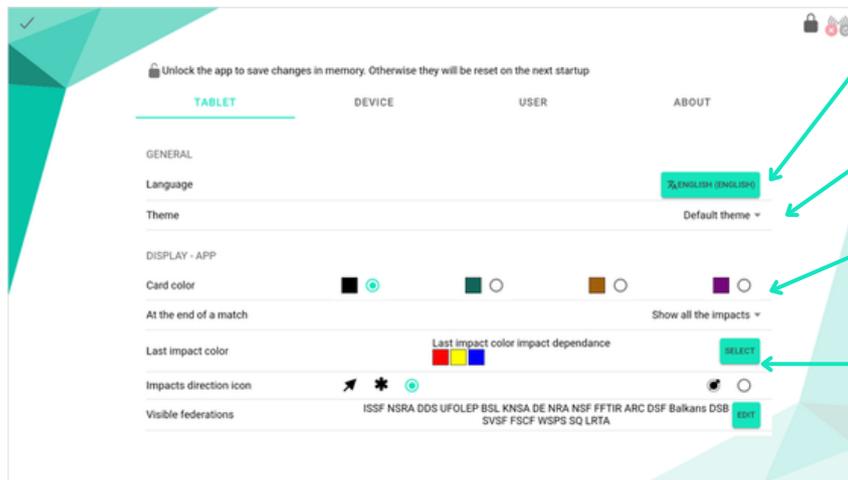

The SQ Touch Tablet

The Device
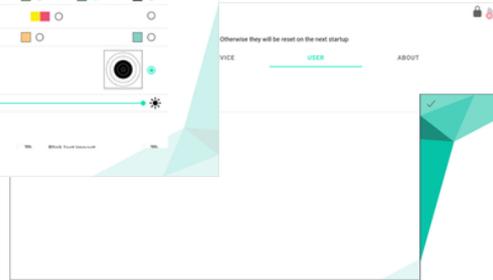
The Usrer
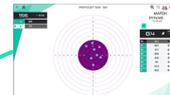

About

Tablet Configuration (1/2) ⚙️

- Click ⚙️ to access the settings page for the TABLET.

Select your preferred language (11 options). A restart of the app is necessary for changes to take effect.
This indicates that the application will restart, resulting in the loss of all your data (hits, etc.).

light (white background) and dark (black background) modes of the SQ Touch

Adjust the visual display color on your SQ Touch tablet.

Last impact color: Fixed color or last impact color based on score.

👉🔓To save your changes, unlock the application.
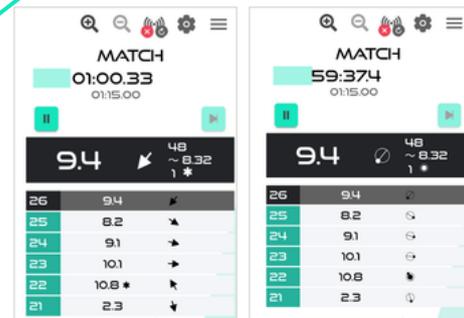If you don't, they will be automatically erased at the next restart..

Adjusted hue

Color of the final impact based on the score

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Impact Direction Icon

- Click ⚙ to access the settings page for the TABLET.

Select your preferences for visibility.

👉🔓To save your changes, unlock the application.
If you don't, they will be automatically erased at the next restart..

sportquantum Target Configurations (1/2) ⚙

- Click to ⚙ access the application and TARGET configuration page.

Target wallpaper (surrounding the shooting box)

Last impact color: Fixed color or last impact color based on score.

Background color of the target display

Displaying regions on the target

Target luminosity

🔒 Unlock the app to save changes in memory. Otherwise they will be reset on the next startup

| TABLET | DEVICE | USER | ABOUT |

DISPLAY - DEVICE

Screen background

Last impact color impact dependance

Card background

Card pattern

Brightness

IMPACTS

👉🔒To save your changes, unlock the application.
If you don't, they will be automatically erased at the next restart..
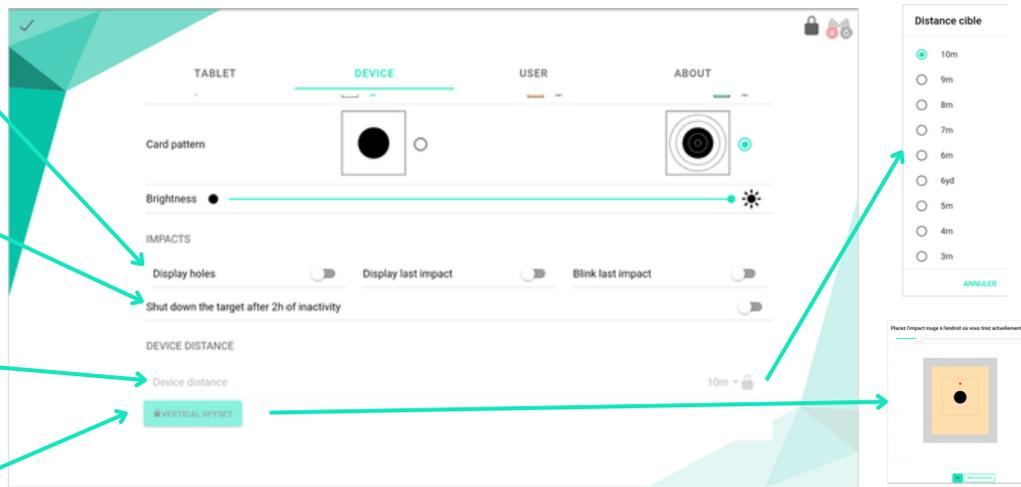
sport**quantum**

- Click to ⚙ access the application and TARGET configuration page.

Demonstrating effects on the target

After two hours, if the target no longer receives an impact, it will automatically enter standby mode; a simple shot to the screen will reactivate it.

Select the target position (shooting distance) ranging from 3 to 15 meters or 6 yards.

If the shooting distance is not 10 m, modify the rifle's aiming point. Align the red dot with the current impact position while targeting the center.


| TABLET | DEVICE | USER | ABOUT |

Card pattern

Brightness

IMPACTS

Display holes   Display last impact   Blink last impact

Shut down the target after 2h of inactivity

DEVICE DISTANCE

Device distance   10m

⬛ VERTICAL OFFSET

Distance cible
- ◉ 10m
- ○ 9m
- ○ 8m
- ○ 7m
- ○ 6m
- ○ 6yd
- ○ 5m
- ○ 4m
- ○ 3m

ANNULER

👉 🔓To save your changes, unlock the application.
If you don't, they will be automatically erased at the next restart..
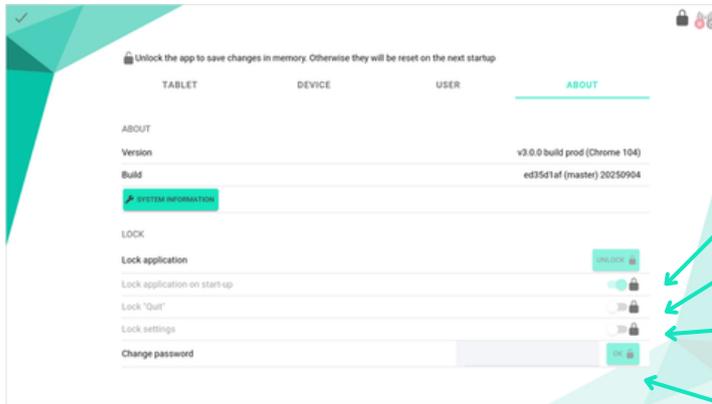
User Preferences ⚙️

- Click to ⚙️ access the USER settings interface.

🎧 VIASS – An audio system designed for individuals who are visually impaired or blind, when utilized in conjunction with the SQ Air 10 target.
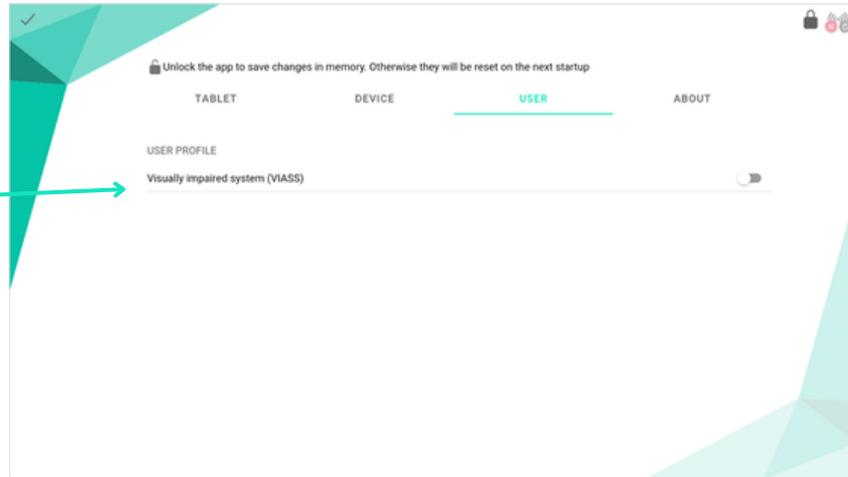
👉🔒To save your changes, unlock the application.
If you don't, they will be automatically erased at the next restart..

sportquantum Settings Information (1/2) ⚙

Secure the default application. All safeguarded actions and configurations will require a password for access.

Lock the "Exit button." The user will be unable to exit the application without a password.

Lock "Settings." The user will be unable to open the target and application settings without a password.

Change the existing padlock password.
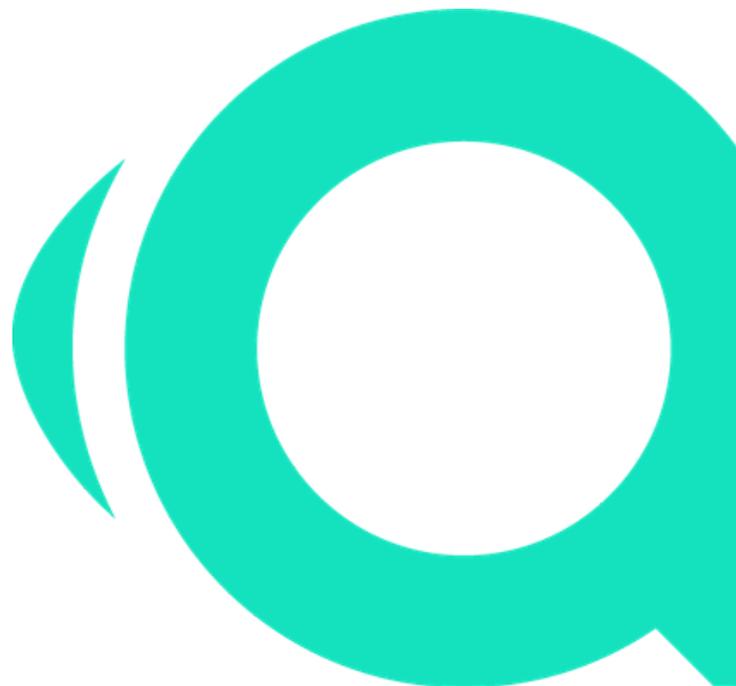The default password is "1896."

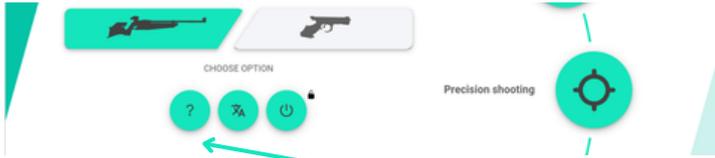Access system information. This information may be requested by SPORT QUANTUM technical support.
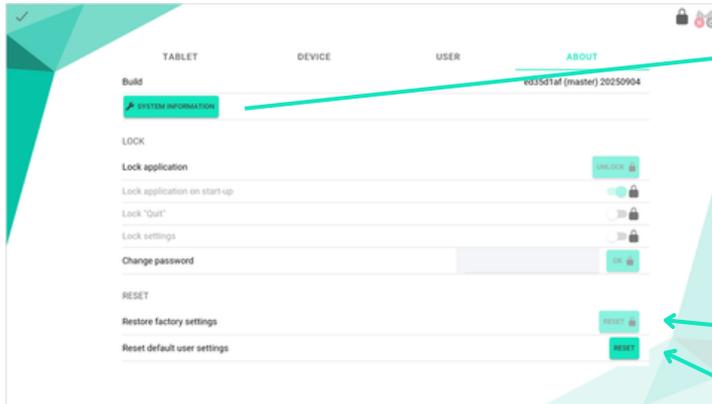
Restore all settings to factory defaults, including login configurations.

Disable kiosk mode. The default settings of the operating system are configured to activate kiosk mode. Can be reactivated by an administrator.
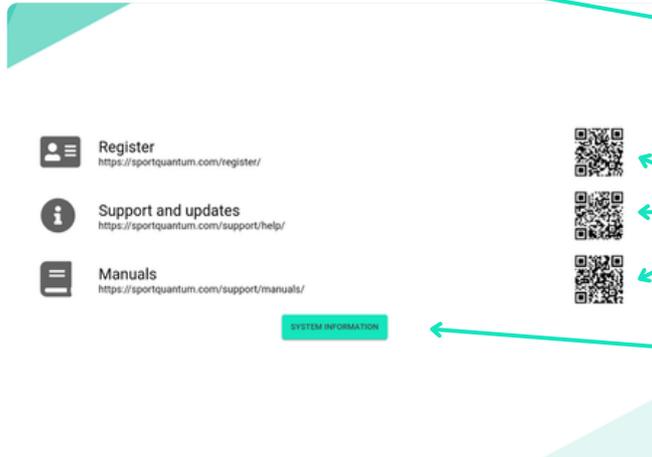
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Application Used

Support and guidance ?

Valuable resources

- By clicking on "?", you will discover the useful links listed below.

Register
https://sportquantum.com/register/

Support and updates
https://sportquantum.com/support/help/

Manuals
https://sportquantum.com/support/manuals/

SYSTEM INFORMATION

- Simply scan the QR codes with your mobile device to access the latest documents and information on the SPORT QUANTUM website.

- Access system information. This information may be requested by SPORT QUANTUM technical support.

How to access the application ⚙
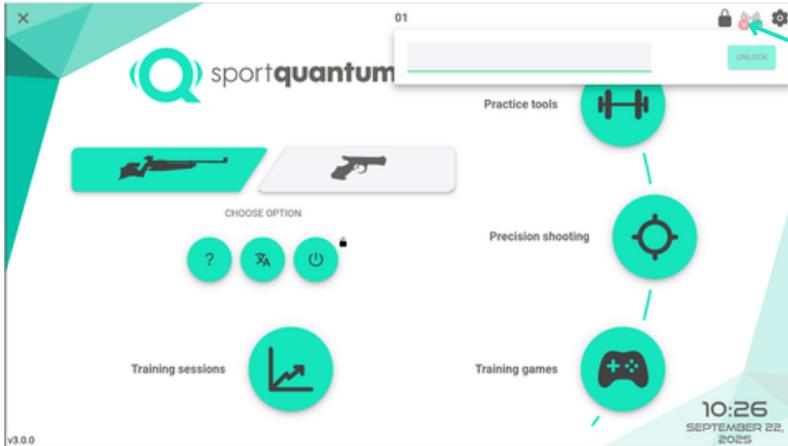
1. Select the icon. 🔒
2. Enter the default password
3. Select "Unlock".

- When the application is unlocked, all buttons and functions restricted by the app are rendered inactive with this icon. 🔒

Please note that only a complete reset of the application by an administrator can resolve issues related to password loss.

Discipline selection and Activity

Select your discipline: rifle or pistol.
You may make changes at any time by returning to the main menu.

Then, choose your Activity:
- Practice tools: training instruments
- Precision Shooting - Competition and Training
- Training Games - Enjoyable Education

Training sessions
The virtual trainer instructs the shooter through a series of exercises centered on specific themes, such as target entry and release zone. Comprehensive training sessions (30 - 60 minutes) addressing various technical aspects. The repository of themes will be augmented over time.

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Pratice tools

# sportquantum **Training Resources**
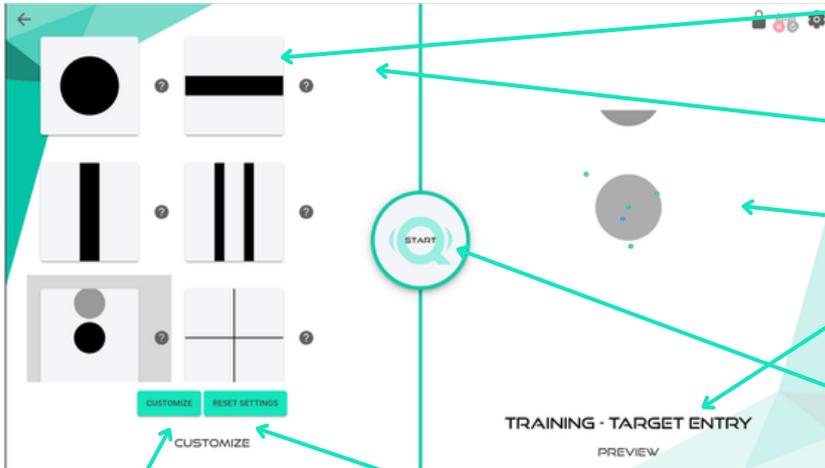
Select your training exercise.

Relevant information regarding the exercise (refer to the following page)

Preview of the chosen exercise, including, where relevant, personalized settings.
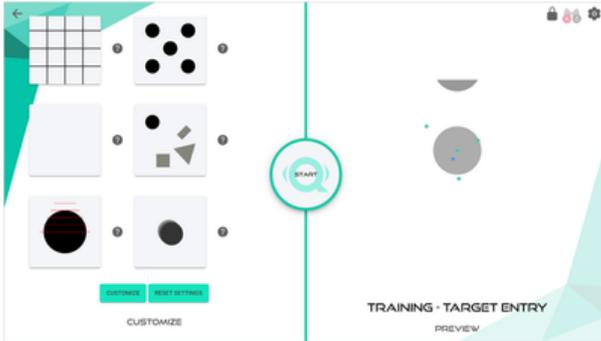
START

TRAINING · TARGET ENTRY

PREVIEW

Start your exercise.

CUSTOMIZE   RESET SETTINGS

CUSTOMIZE

Reset exercise parameters

Tailor the exercise to align with your skill level or objectives.

Training Resources
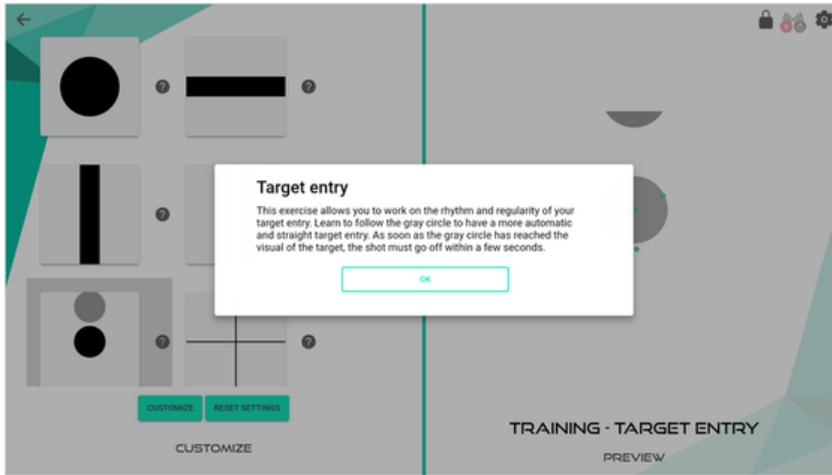
Information regarding the rationale for this exercise and the anticipated outcomes.

Training Resources

12 entirely customizable training visuals (colors, dimensions, etc.)
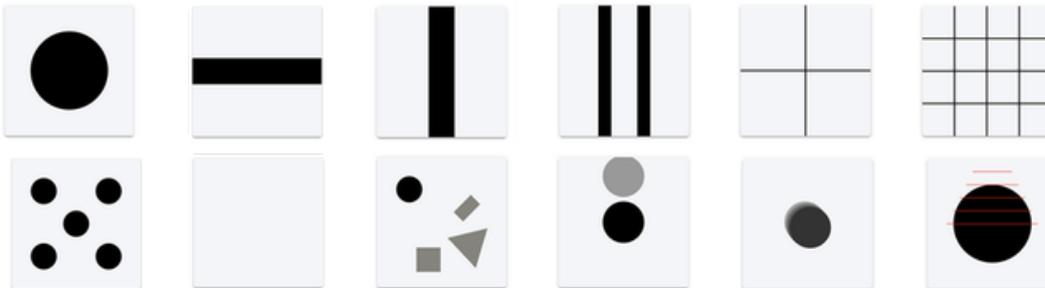
Training resources
Practical documents

Black cardboard only target
This exercise will allow you to work on your repetition without looking for a "ten" at any price. Set the difficulty according to your requirement and the impacts in the chosen area will not appear.

Two verticals
Work on your target approach without target. Stay between the two bars and keep your sighting elements aligned.

Horizontal Line
This exercise is a very complete exercise that will allow you to gain confidence in your stability. The goal is to aim into the line and shoot. No matter the height of the grouping, the goal is to make its width as small as possible by staying into the line. Place yourself correclty in front of the target.

Grids
Coordination work to harmonize intent and trigger-finger pressure. Proper positioning facing the target and alignment of the sighting elements make this exercise easier.

Vertical Line
This exercise is a very complete exercise that will allow you to gain confidence in your stability. The goal is to aim into the line and shoot. No matter the width of the grouping, the goal is to make its height as small as possible by staying into the line. Your buttplate must be correctly setup to aim at the right height.
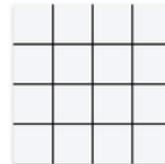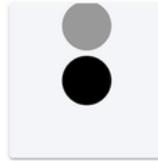
Training resources
Practical documents

Multiple targets
This target will ask you to adapt your placement in relation to the target, both sideways and vertical.

Target entry
This exercise allows you to work on the rhythm and regularity of your target entry. Learn to follow the gray circle to have a more automatic and straight target entry. As soon as the gray circle has reached the visual of the target, the shot must go off within a few seconds.

Blank target
The absence of visual cues separates you from the sensation of movement and allows you to focus on trigger-finger pressure, steadiness, and sight alignment.
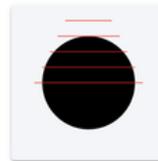
Fading hole
Try aiming when the target is visible and then shooting go when it is invisible. Will you be able to hold the position?

Random Shapes Objective
This pistol exercise enables you to enhance the coordination between the sight image and the pressure applied by the finger on the trigger.
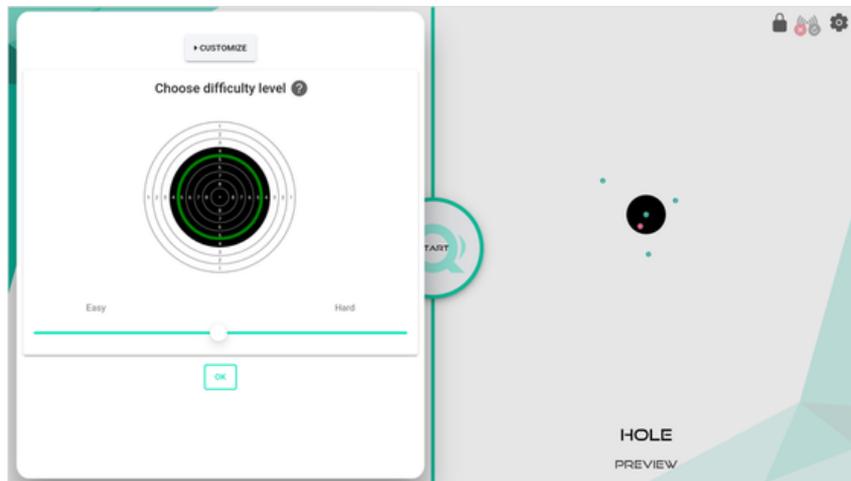
Trigger pressure
Trigger pressure management: coordinating finger pressure with target entry procedures

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Select default difficulty
A parameter-configuration tool that adapts settings to the shooter's level.
Move the slider to adjust the circle size to match the average dimension of the shooter's typical groupings.
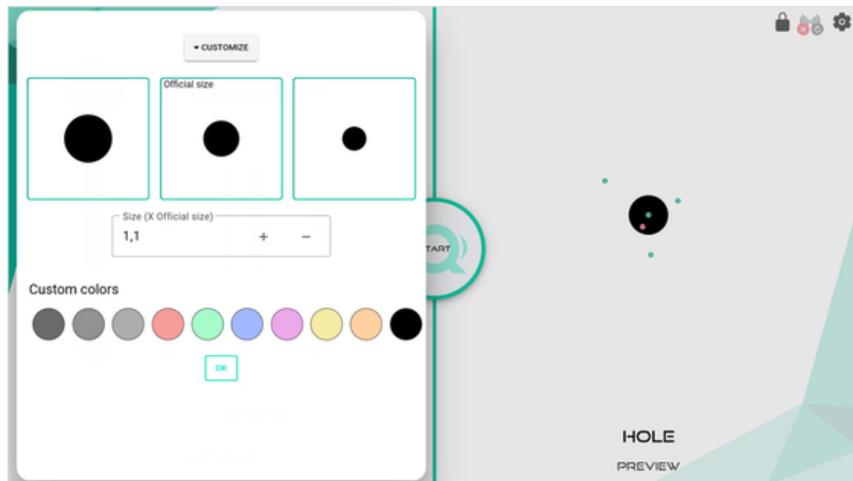The tool will calculate the appropriate options to help the shooter improve their performance.

👉 **Warning**: If you choose a different card after setting up your exercise, please note that you will need to reconfigure the exercise to ensure consistency between the card selection and the exercise setup.

Personalize size and colors

👉 **Warning:** If you choose a different card after setting up your exercise, please note that you will need to reconfigure the exercise to ensure consistency between the card selection and the exercise setup.
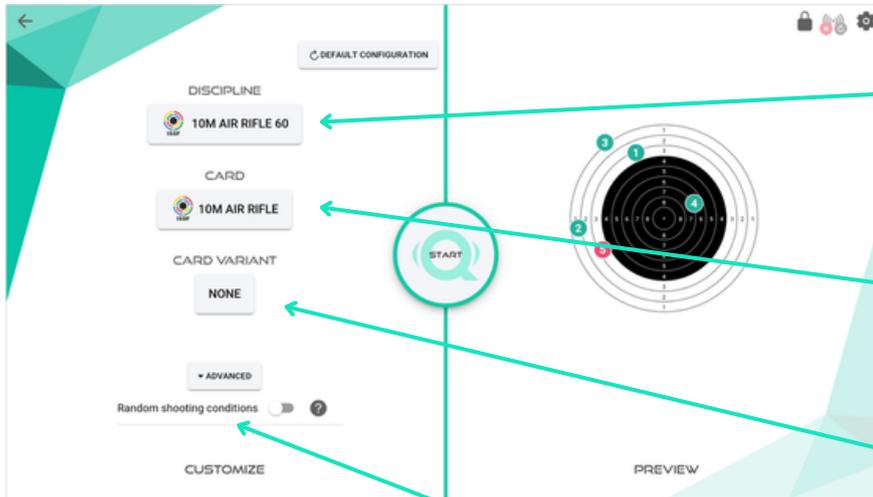
Precision shooting
Challenge / Competition
Training
Favorite

Select your desired visual in three steps.

- **Step One: Self-Discipline**
- Select: **Challenge/ Training / Favorites,** followed by the relevant sub-values. For instance:
- Training / Pyramid Agreement
- Competition / FFTIR -7 / Standard

- **Second step: selecting the cardboard / shooting mask**
Select the card design from the official national or international federations.

- **Step Three: Variation Mapping**
Select the visual overlay for a particular workout (entry drill, centering drill, blurred visual).

Arbitrary shooting conditions
This feature involves configuring your shooting environment to
A random method to facilitate your adaptation efforts. It
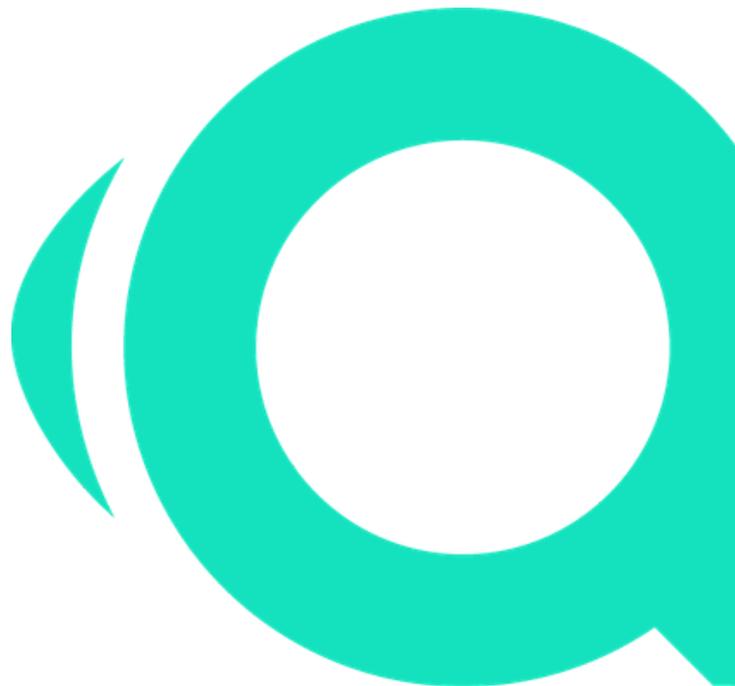may influence the target colors (background, cardboard), brightness...

Challenge configuration
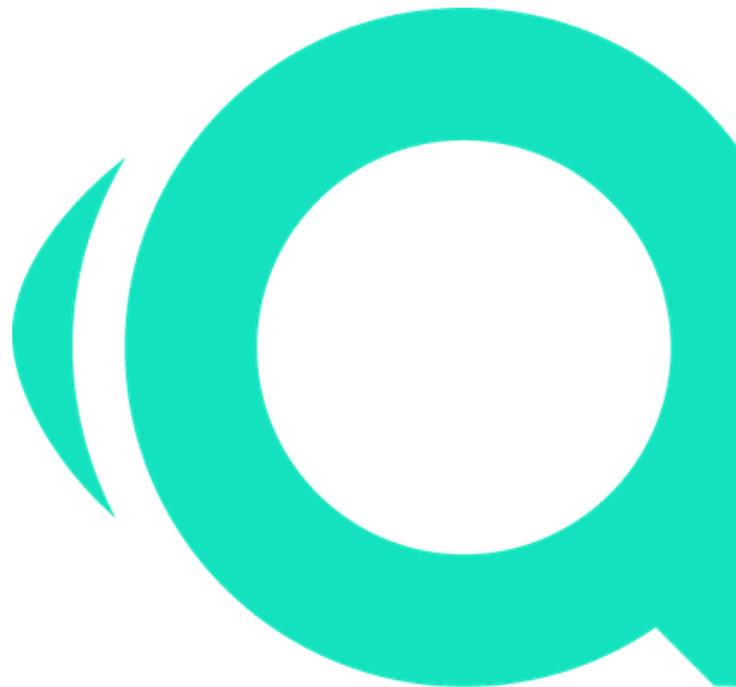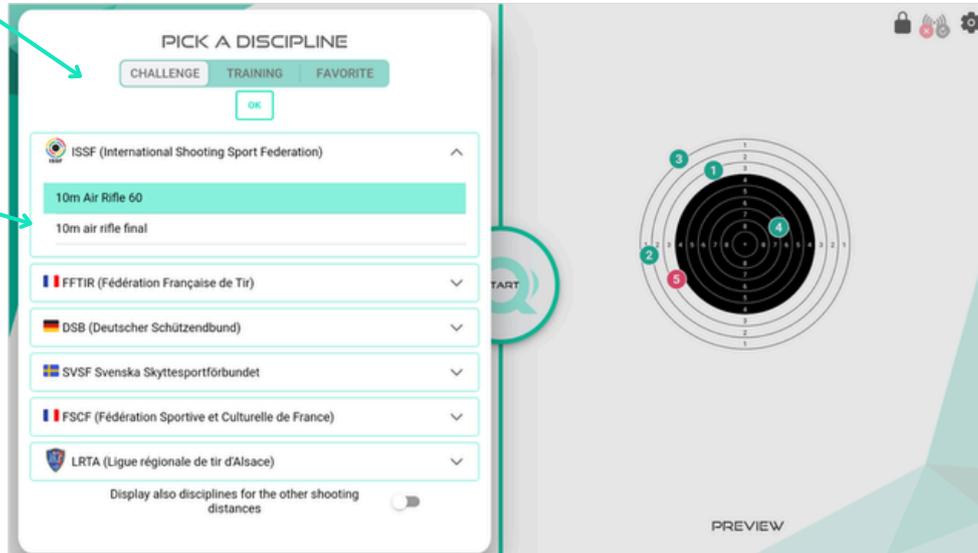
Competition

Step 1:
Selection of discipline

ISSF (International Shooting Sport Federation)	⌄
FFTIR (Fédération Française de Tir)	⌄
DSB (Deutscher Schützendbund)	⌄
SVSF Svenska Skyttesportförbundet	⌄
FSCF (Fédération Sportive et Culturelle de France)	⌄
LRTA (Ligue régionale de tir d'Alsace)	⌄

Precision Shooting
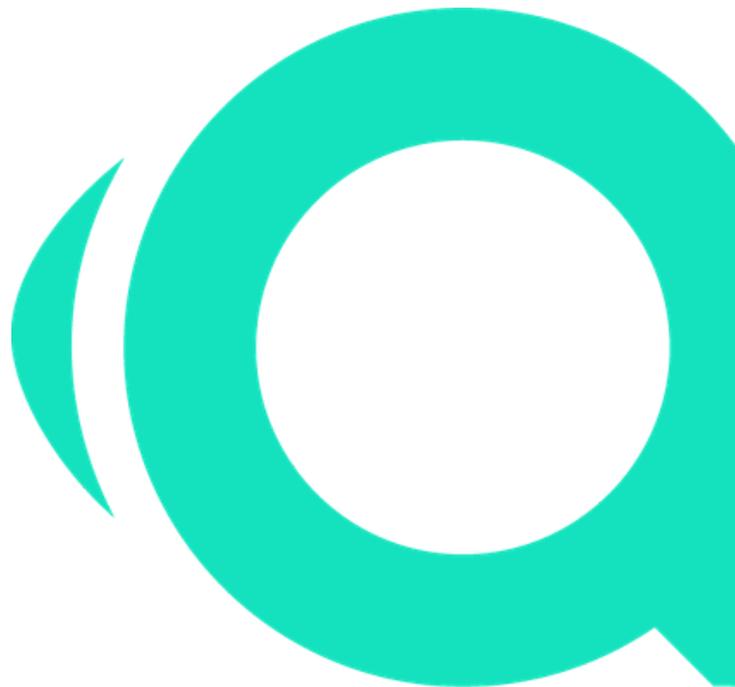## Challenge

Selection of Discipline: **Challenge**

Selection of organization
(DSB/FFTIR/ISSF/WSPS)

PICK A DISCIPLINE

CHALLENGE   TRAINING   FAVORITE

OK

ISSF (International Shooting Sport Federation)

10m Air Rifle 60

10m air rifle final

FFTIR (Fédération Française de Tir)

DSB (Deutscher Schützenbund)

SVSF Svenska Skyttesportförbundet

FSCF (Fédération Sportive et Culturelle de France)

LRTA (Ligue régionale de tir d'Alsace)

Display also disciplines for the other shooting distances

START

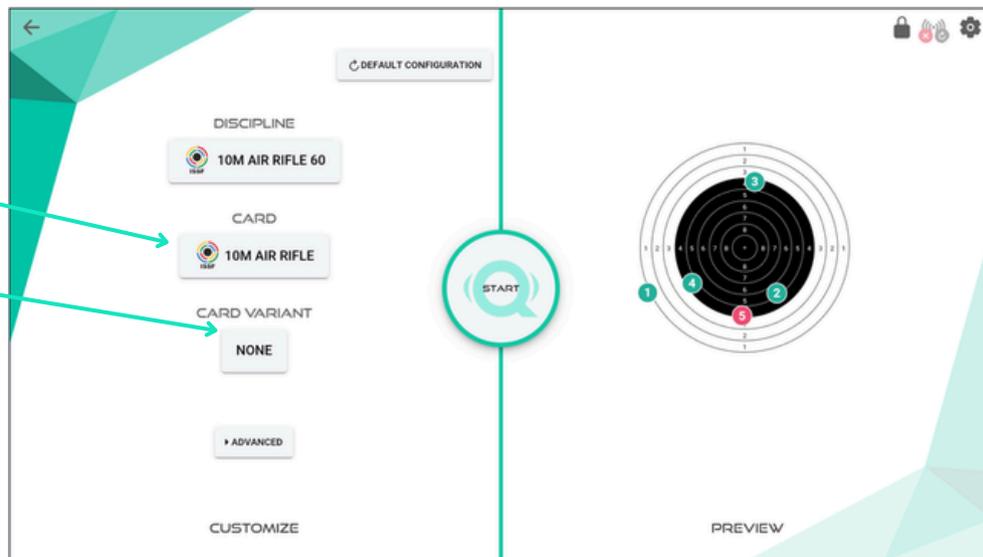PREVIEW

Competition

Step 2:
Design of the shooting enclosure
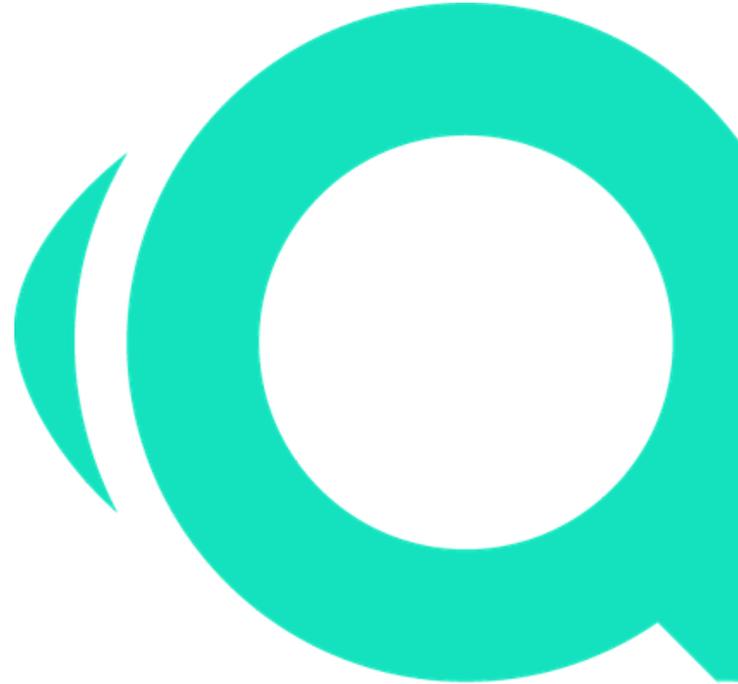
Precision Shooting Challenge

Selection of Cardboard
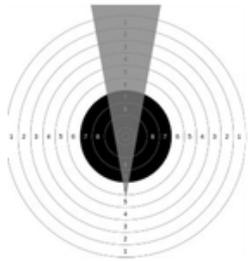
Selection of cardboard variant if required

Competition

Step 3:
Cardboard types

Precision Shooting
Competition – Target Variant

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This function serves as a layer that provides visual indicators on the cardboard you have chosen to address a particular technical aspect.


Entry onto the target
Slowly align your sights without leaving the shaded area until you reach the white margin area. Repeat this exercice in order to ensure a controlled and mastered target entry, but also in order to check your position in relation to the target and to ensure the repeatability of your position.

Centering target
Work and gain confidence in your stability with this exercise that will show you that a good "aim / release / hold" in the shaded area will give you a result corresponds directly to your hits on the target.
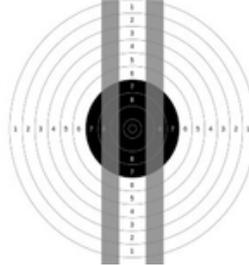
Two verticals
Work on your target approach without target. Stay between the two bars and keep your sighting elements aligned.

Blur card
Sometimes your vision is not clear. Simulate it on a blur card.

Asymmetric lighting
This exercise emulates a target on whose lighting is not uniform.
Training on this card will allow you to be prepared to aim on this kind of target if you meet it during a competition for instance..
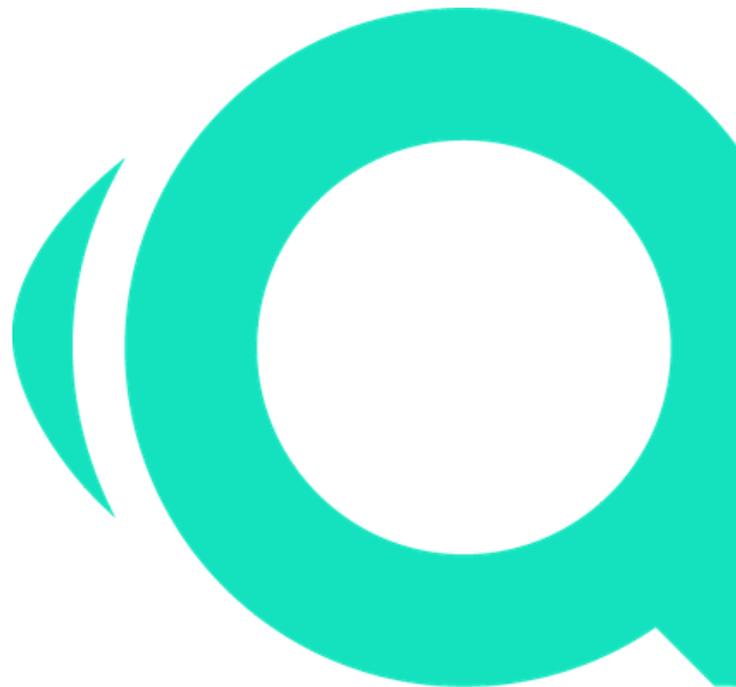
Precision Shooting
Competition – Target approach

The variation you apply to your cardboard is, in turn, customizable.
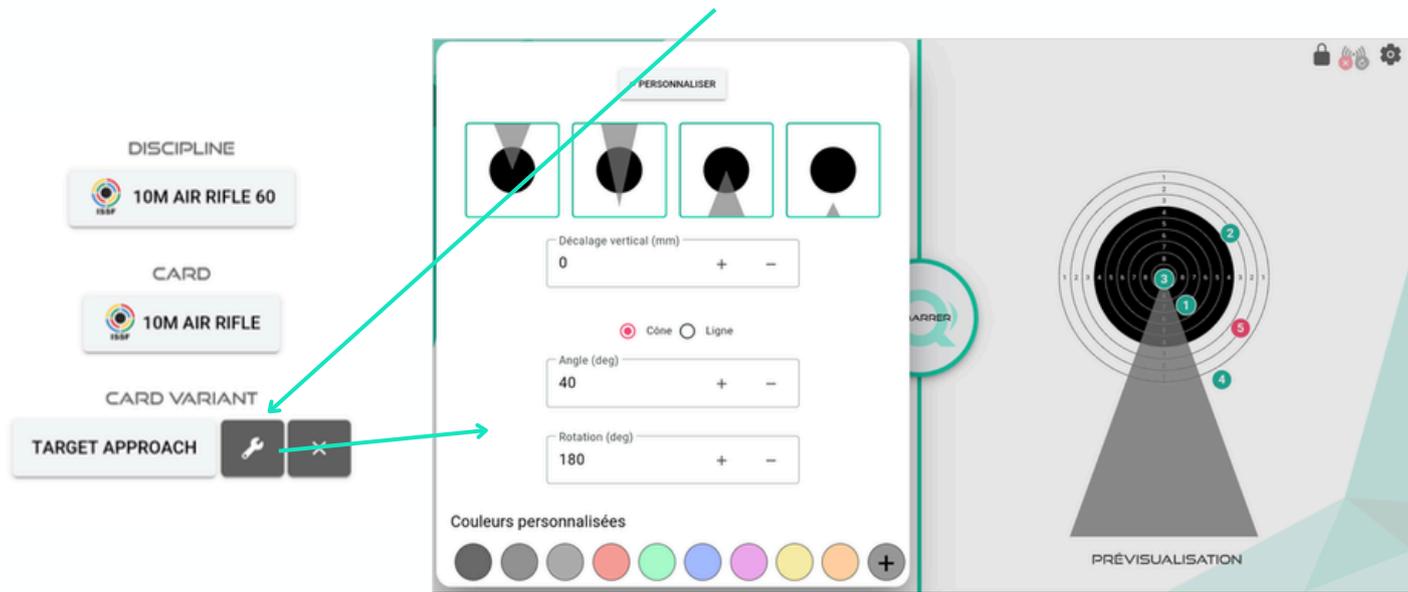
Challenge
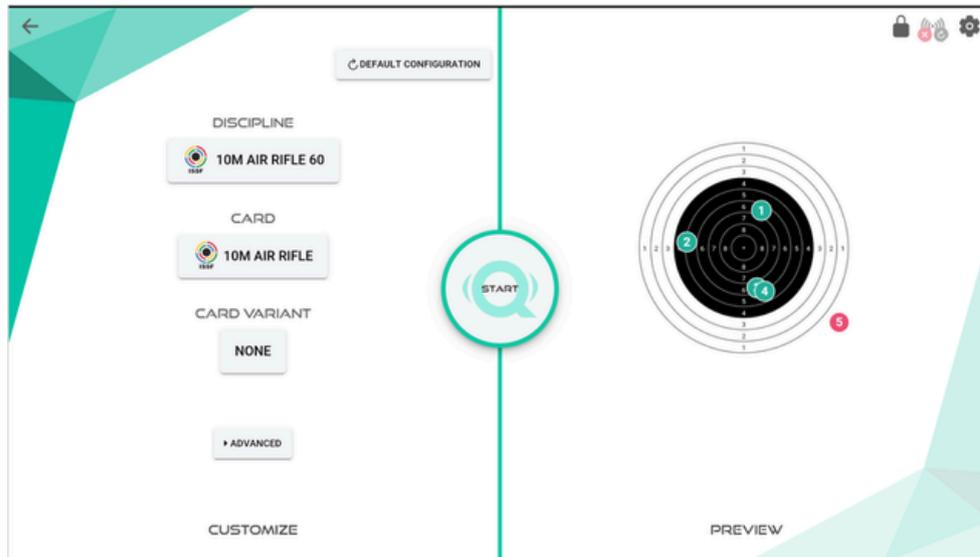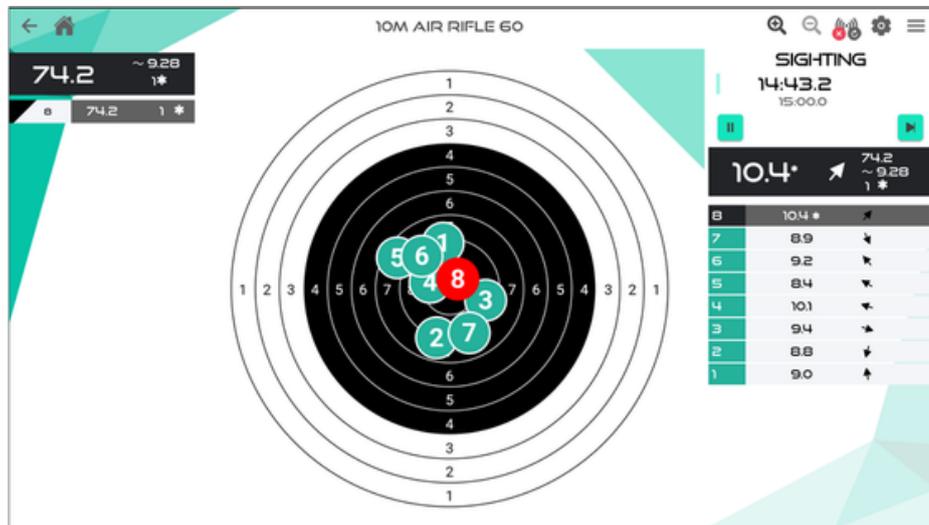# Shooting session

Challenge

Following selection:
- Discipline
- Card
- Card variant

Click on START

Challenge

Sighting Time sy
triangle at the to
right

Challenge

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Enable zoom (if necessary)

Display settings

Current Sequence (Trials/Match/Load/Focus/Shooting)

Two options: **Time Remaining / Time Elapsed** (click on the time to toggle between them)

Average impact score

Total score

Name of Ten Total

Number 10 in the series

Total duration of the sequence (Training / Competition)

Average impact score of the present series

Number of tens in the current series

Final shot value (impact)

Impact and Score Visualization Settings

Click on this icon located in the upper right corner of the SQ Touch.
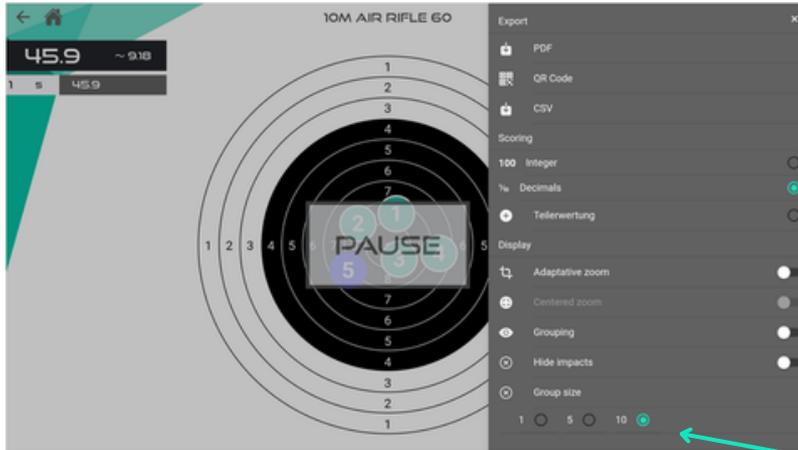
Score display format (integers, decimals, fractions)

Zoom mode (adaptive to adjust for impacts, centered to maintain the target in the middle)

Displaying the categorization

Time: stopwatch for every shot

Conceal the effects

Display impacts in increments of 1, 5, or 10.

Grouping Display Preferences

When clustering is selected in the display options, the red clustering circle signifies the average dispersion of the current impact series.
The X, Y, and ø values represent the coordinates of the center and the diameter of this grouping circle. This information can be utilized to calibrate your aiming device.
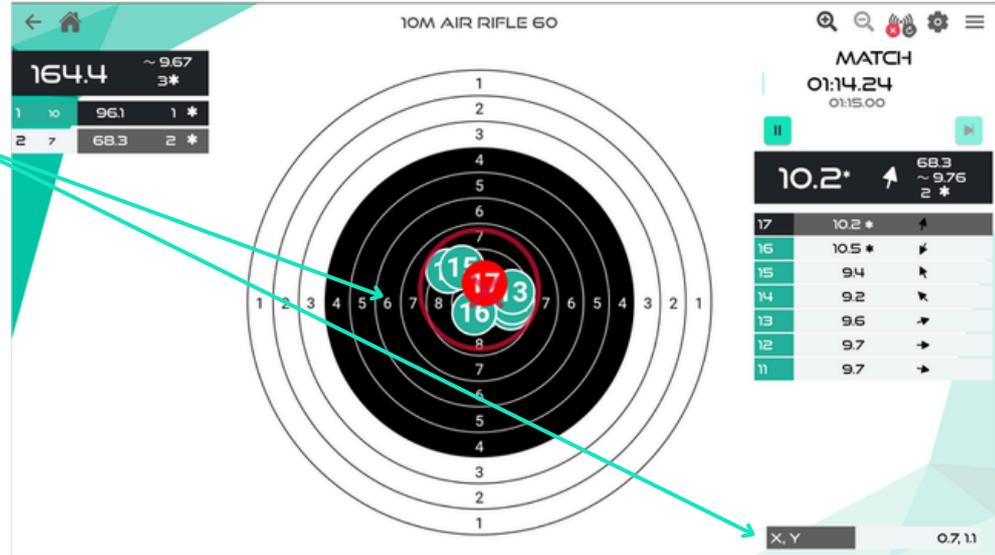
Pistol Discipline
Standard
3/7
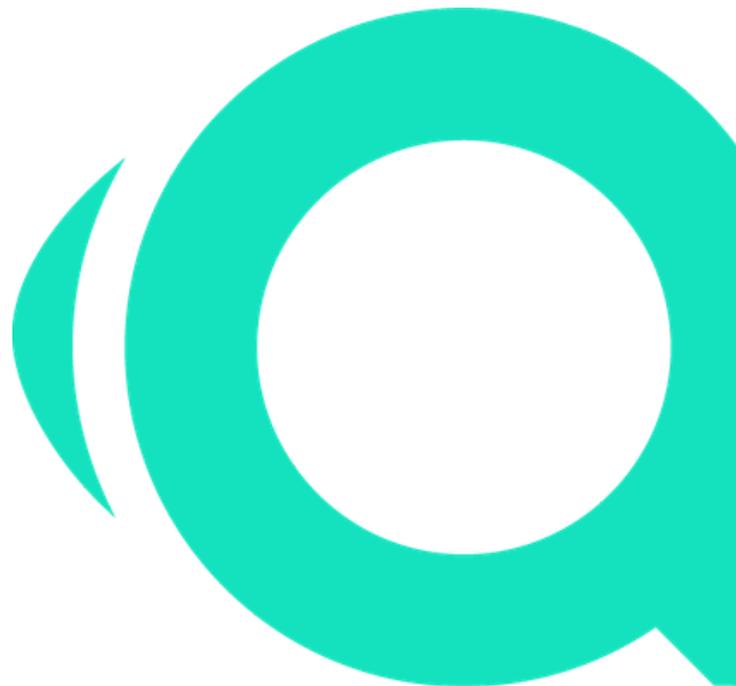
Discipline setting 10m pistol
STANDARD

Path from the home menu: Pistol /
Precision Shooting / Competition / FFTIR /
Standard

Selection of
configurations
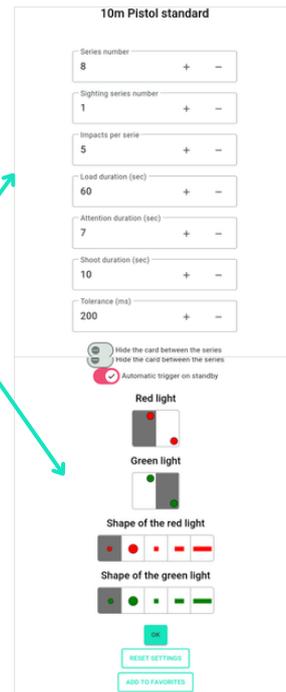
Discipline Pistol 3/7

25M" pistol or at a distance of 10 meters as part of the shooting academy

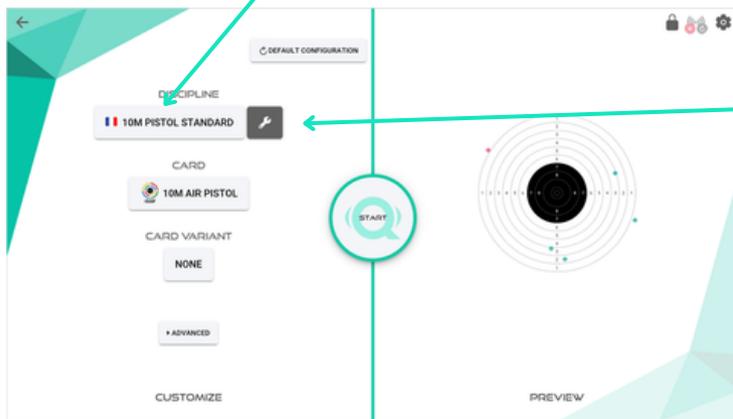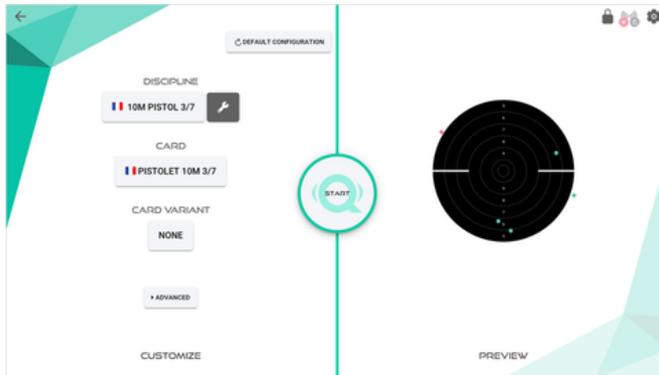The score and timing of each impact are presented. Impacts occurring before or after the permitted shooting time receive a score of 0.

10 m Rapid Fire Pistol – Target
- Sight picture: precision pistol target with horizontal bars.
- Series procedure:
The target appears for 3 seconds, then disappears for 7 seconds, per shot, repeated 5 times (5 shots per series).
- Competition program:
1 trial series of 5 shots, followed by 6 competition series of 5 shots each, for a total of 30 competition shots.
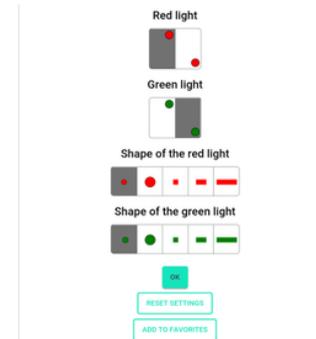
Precision Shooting
Training

- Classic
- Practice
- Contracts
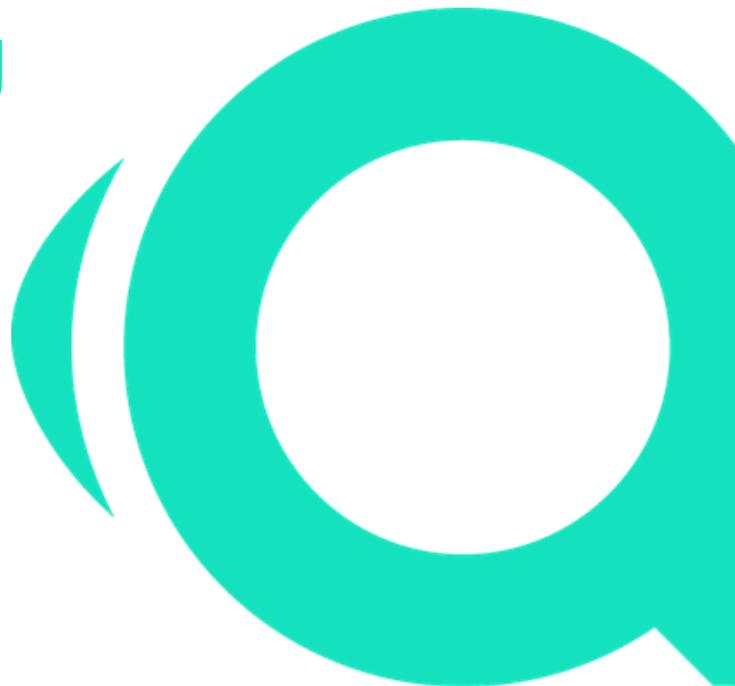
Training - Classic
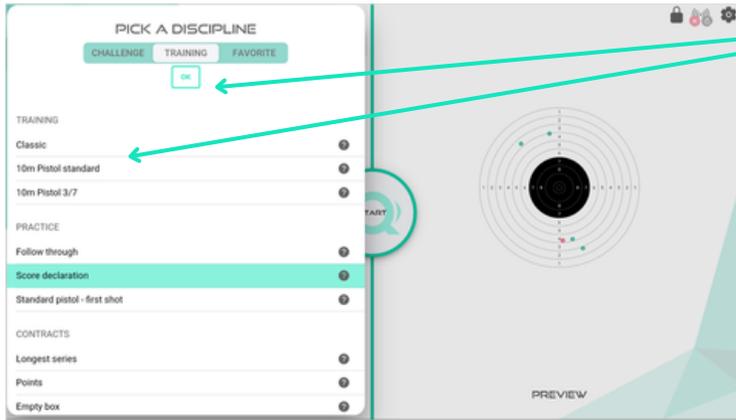
Free Fire

Tailor your traditional shooting experience.

Training – Practice
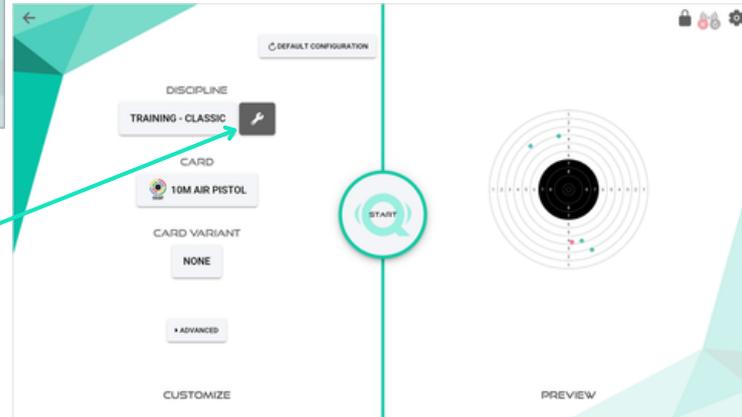
Maintaining position at the beginning of the shot

The purpose of this exercise is to sustain your focus, stance, and target for a brief period following the shot, ensuring that when the shot is executed, you are fully attentive.

The principle is to postpone the presentation of the shot and its outcome to avoid being drawn to it. The delay is measured in seconds.
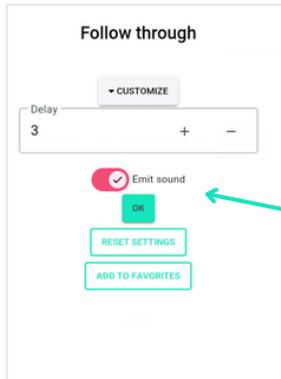
A sound may be emitted to inform the shooter that the shot has been displayed.
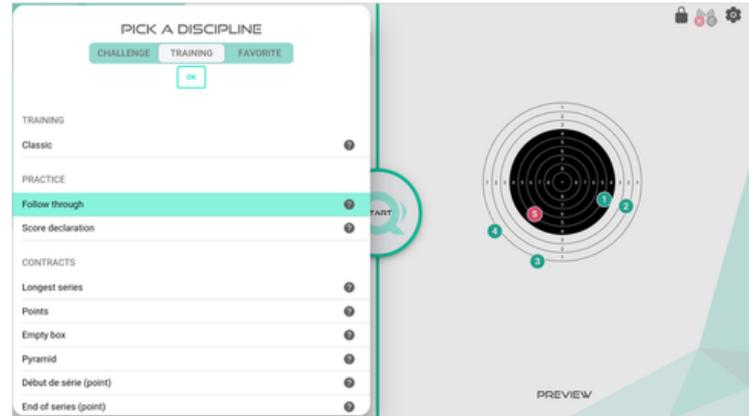
Training - Activities

Score declaration

The goal of this exercise is to help you to better analyse your technic during a shot. The concept is that between every shot, a page appears and ask you to estimate where you think the shot will arrive. After that, the real shot is displayed on the tablet and you can compare with your estimation. Thanks to this exercise, you will more focus on what you feel during the shot, to analyse it and improve your technic
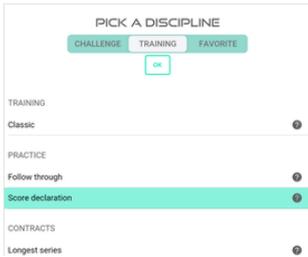
Here, you can establish tolerances.
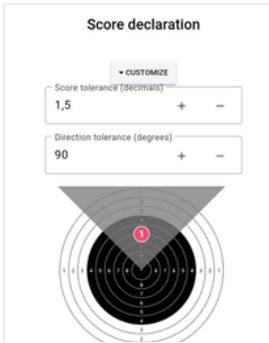
After each shot, you must deliver your announcement.

Subsequently, the actual shot is presented on the tablet, allowing for a comparison with your advertisement. This exercise will enhance your focus on the sensations experienced during the shot, enabling you to analyze and refine your technique.

Training - Contract
Longest series

Longest series "Contract" target
Test your discipline, stamina and mental strength by shooting the longest possible series without any misses. You can adjust the degree of difficulty according to your specific requirements.
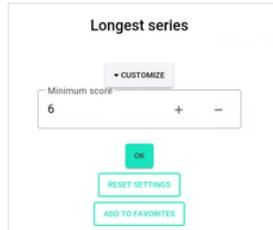
In this example, the contract stopped after 34 shots because the minimum score limit set to 6 in the settings was exceeded.
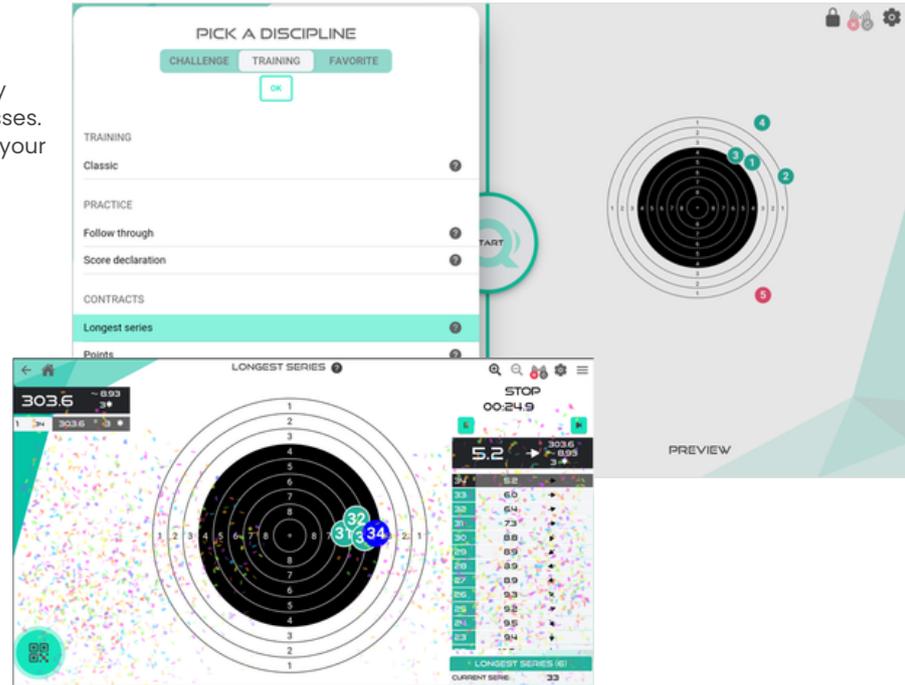
Training - Agreements Points

Contract target - Points

Reach 5 or 10 points with as few shots as possible. Depending on thechosen level, each shot will give you points ... or penalties!
Hard

Easy	Medium	Easy	Points
10.9 - 10.4	10.9 - 9.4	10.9 - 8.4	2
10.3 - 10.0	9.3 - 9.0	8.3 - 8.0	1
9.9 - 9.4	8.9 - 8.4	7.9 - 7.4	0
9.3 - 9.0	8.3 - 8.0	7.3 - 7.0	- 1
8.9 - 0			

You may establish the criteria for awarding points as either positive or negative, as demonstrated in the attached example.

In this instance, it required us 11 attempts to achieve a score of 10 points.
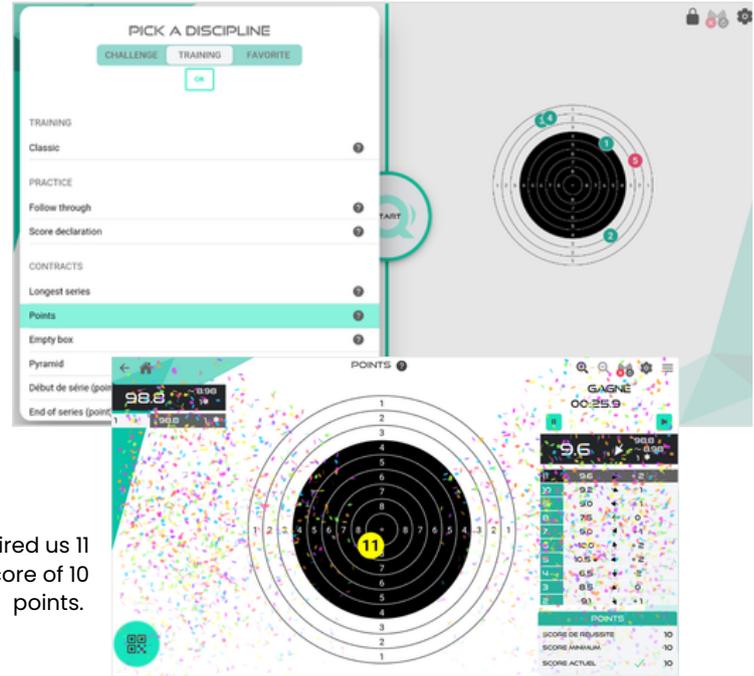
Training - Agreements
Empty box contract

Empty box contract

Chose a minimum score and add a pellet into the box for each time you want to reach it.

Try to reach this objective with a minimum of pellets to empty the box.

The remaining number of pellets into the box is written on it.

Penalties: You can chose a minimum score to reach to avoid having a penalty. If you shoot under this score, some pellets may be added into the box.
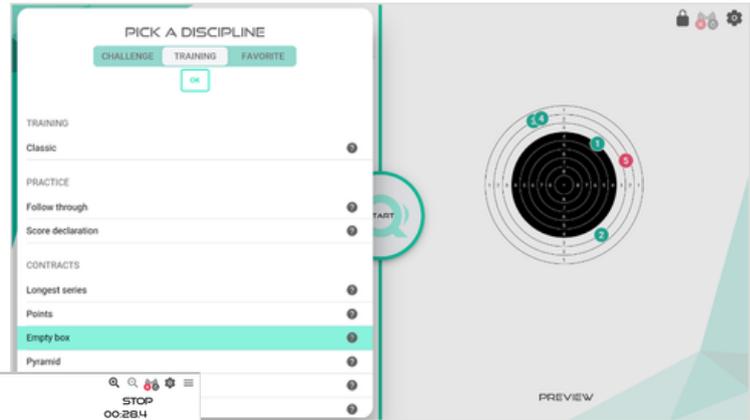
Training - Contract target - Pyramid

Contract target - Pyramid

The goal is to shot every score present within the pyramid.
Each floor is at least equal to the previous one.
Challenge more yourself chosing the 'bottom-top' approach.
Thanks to this exercise you will be challenging yourself either during
each shot or with the view to do a global performance.
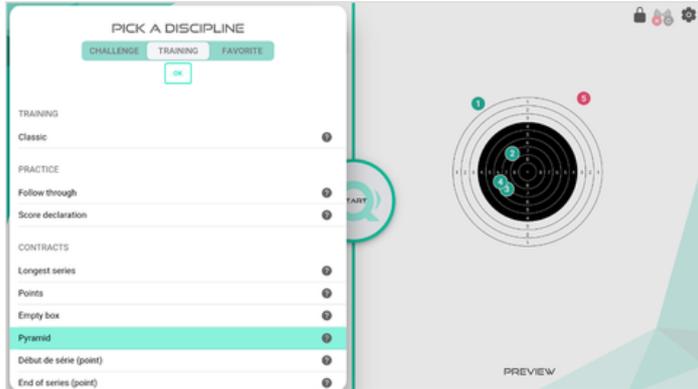
Training - Agreements
Beginning of the match

Minimum shot at the beginning of the match

The objective of this contract is to work on your capacity to well begin a match.

The principle is to select a minimum point to shot several times at the beginning of the series and a series total score to reach.

For example, you can set your objectives to: shoot 95/100 and shoot at least 3x10 in the first five shots of the series.

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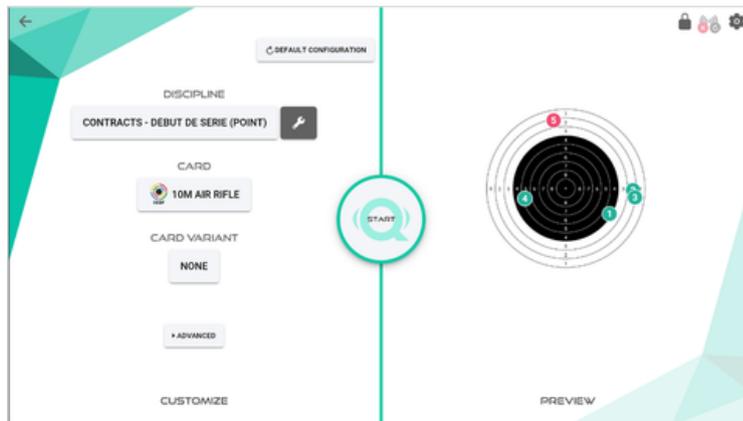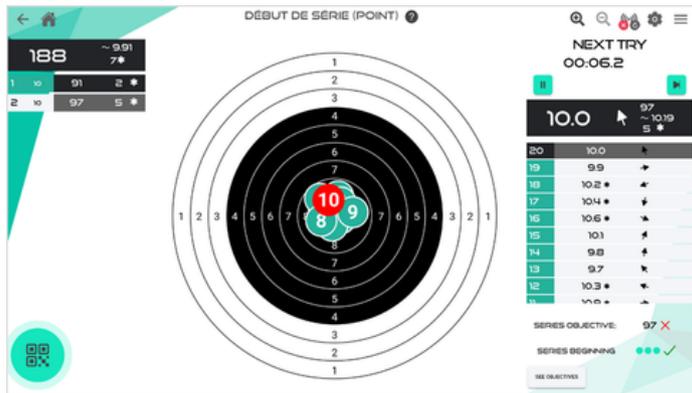
End of series: point

The objective of this contract is to work on your capacity to well end a match.

The principle is to select a minimum point to shot several times at the end of the series and a series total score to reach.

For example, you can set your objectives to: shoot 95/100 and shoot at least 3x10 in the last five shots of the series.
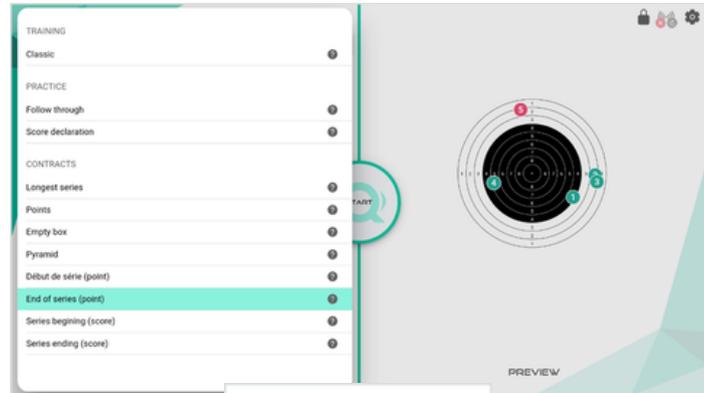
Minimum shot at the beginning of the match

The objective of this contract is to work on your capacity to well begin a match.

The principle is to select a minimum point to shot several times at the beginning of the series and a series total score to reach.

For example, you can set your objectives to: shoot 95/100 and shoot at least 3x10 in the first five shots of the series.

Minimum score at the beginning of the match

The objective of this contract is to work on your capacity to well begin a match.

The principle is to select a minimum score to reach at the beginning of the series and a series total score to reach.

For example, you can set your objectives to: shoot 95/100 and shoot at least 45/100 in the first five shots of the series.

Precision Shooting
Add Favorite

![sportquantum logo]
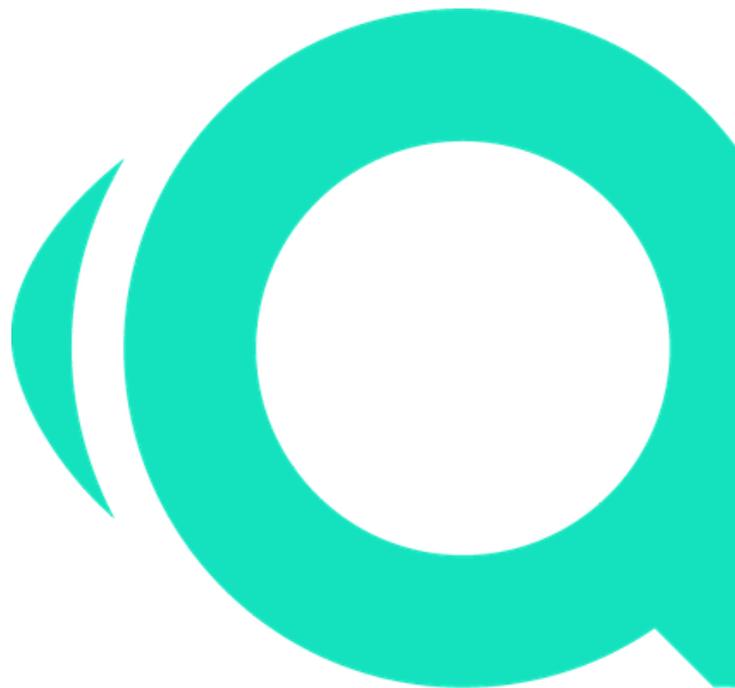
Add to favorites

Save the current discipline customizations to the application for easy retrieval of settings for local disciplines utilized in clubs.

Free shooting

Tailor the criteria to suit your requirements.

Unlimited sighting

Add to favorites.
Rename and preserve

Click to watch the demonstration video

![sportquantum logo]

Add to favorites.

Access your favorites at any time.
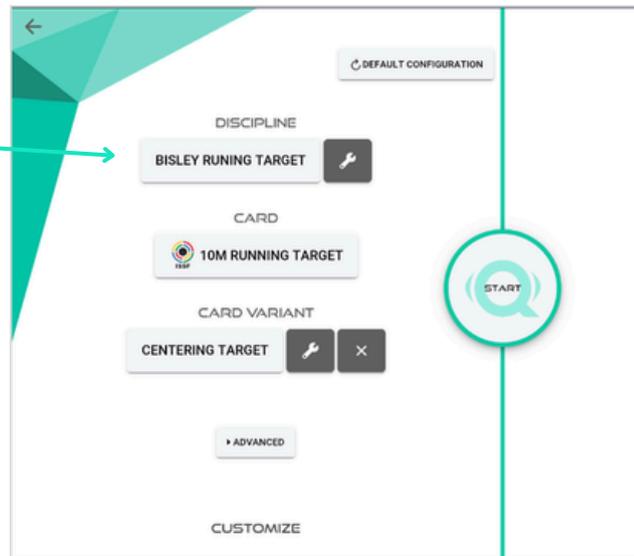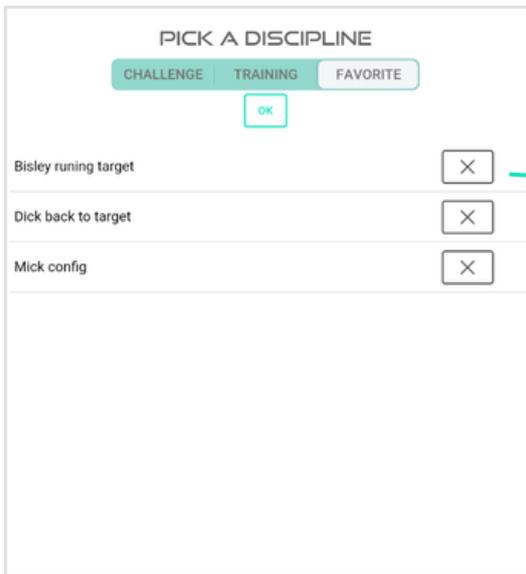
Training sessions

Thematic training

sportquantum

The virtual trainer instructs the shooter through a series of exercises centered on specific themes, such as target entry and release zone.

Comprehensive training sessions (30 - 60 minutes) addressing various technical aspects. The repository of themes will be augmented over time.
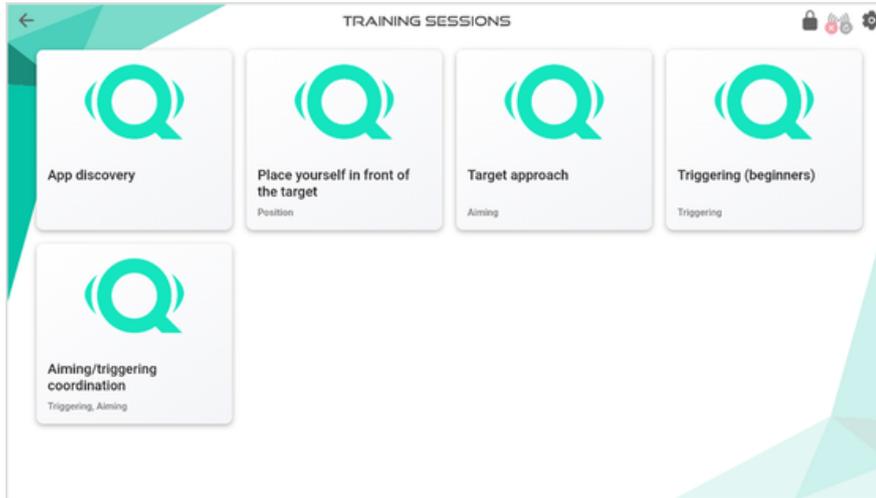
1. Select the module
2. Refer to the training program and the descriptions of each phase.
3. Assess the shooter's proficiency; the exercises will be tailored to their abilities.

👉 **Warning:** Training is tailored according to your selection of rifle or pistol.

Thematic training 1/6
Exploring the application
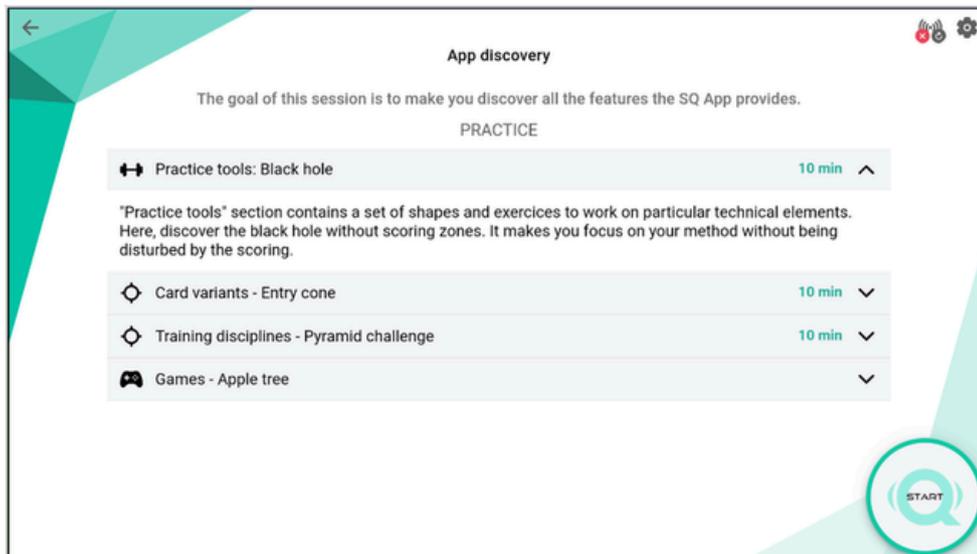
Thematic training 2/6
Exploring the application
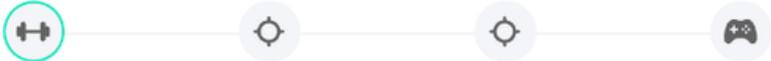
App discovery

Practice tools: Black hole — Card variants - Entry cone — Training disciplines - Pyramid challenge — Games - Apple tree

PREVIOUS EXERCISE | STOP ✕ | NEXT EXERCISE ▶

Practice tools: Black hole

"Practice tools" section contains a set of shapes and exercices to work on particular technical elements. Here, discover the black hole without scoring zones. It makes you focus on your method without being disturbed by the scoring.

Exploring the application

App discovery

Practice tools: Black hole   **Card variants - Entry cone**   Training disciplines - Pyramid challenge   Games - Apple tree

◄ PREVIOUS EXERCISE   STOP ✕   NEXT EXERCISE ►

Card variants - Entry cone

Within the "precision shooting" section, you can add a specific shape over the target. Here, discover the entering cone, which makes you work on your target approach.
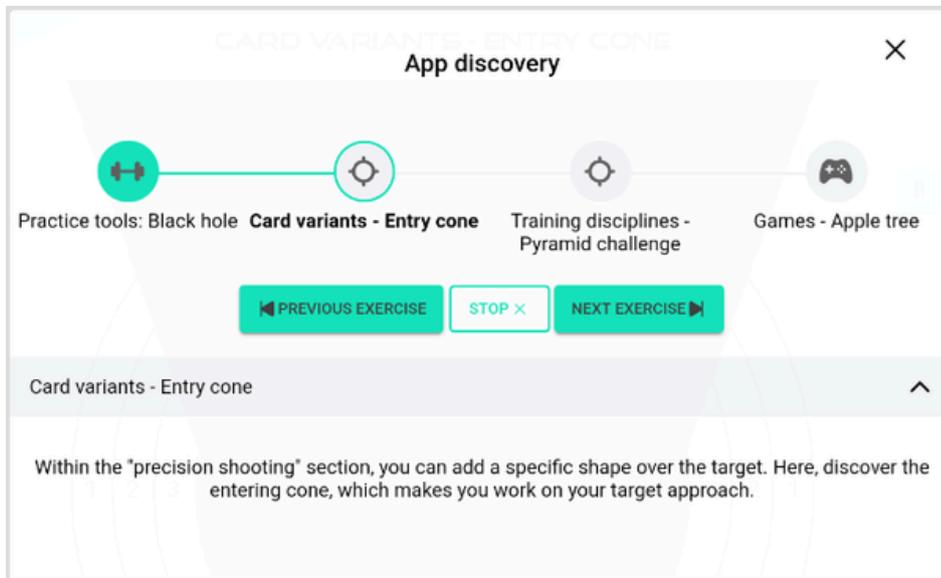
Thematic training 4/6
Exploring the application

sportquantum

App discovery

Practice tools: Black hole — Card variants - Entry cone — **Training disciplines - Pyramid challenge** — Games - Apple tree

PREVIOUS EXERCISE | STOP × | NEXT EXERCISE

Training disciplines - Pyramid challenge

Within the "precision shooting" section, a lot of training disciplines are proposed to work on different points, either technical points or challenges. Here, try the Pyramid challenge !

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App discovery

Practice tools: Black hole   Card variants - Entry cone   Training disciplines - Pyramid challenge   **Games - Apple tree**

◀ PREVIOUS EXERCISE   END ▶

Games - Apple tree   ⌃

Either to entertain or to relax at the end of a training session, enjoy our games ! One of the most famous is the apple tree.

Thematic training 6/6
Exploring the application
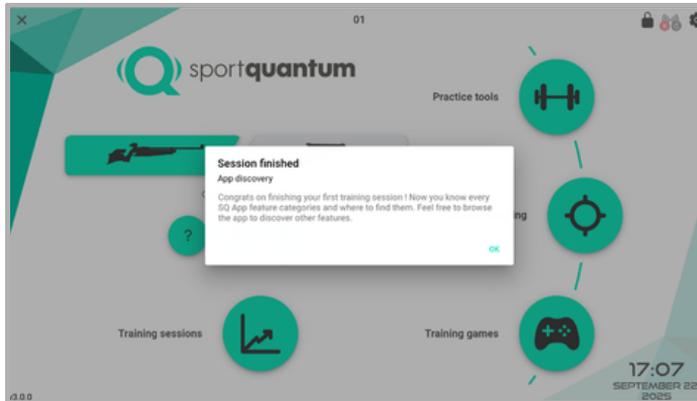
Session concluded Application discovery

Congratulations on completing your first workout! You are now familiar with all the categories of features within the SQ app and their respective locations. You are encouraged to explore the app further to uncover additional features.

Training **Games**

Training games **26 options**
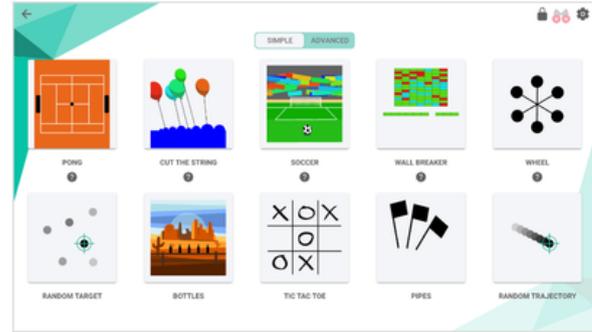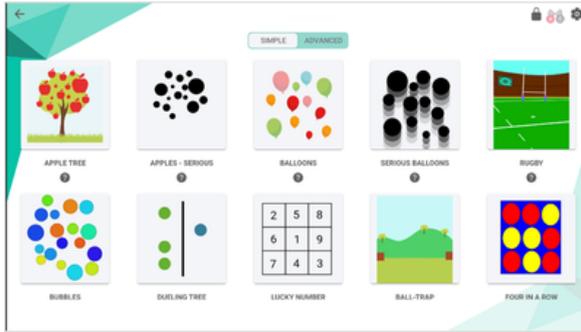
Description of the game material

Classic darts game

Try to reach exactly 0 score before other players. If a player has a negative score, his score will be inversed.
Each player has to shoot several darts per volley.
Click on "forward" button between players and volleys to start shooting.

OK

Training games 26 options
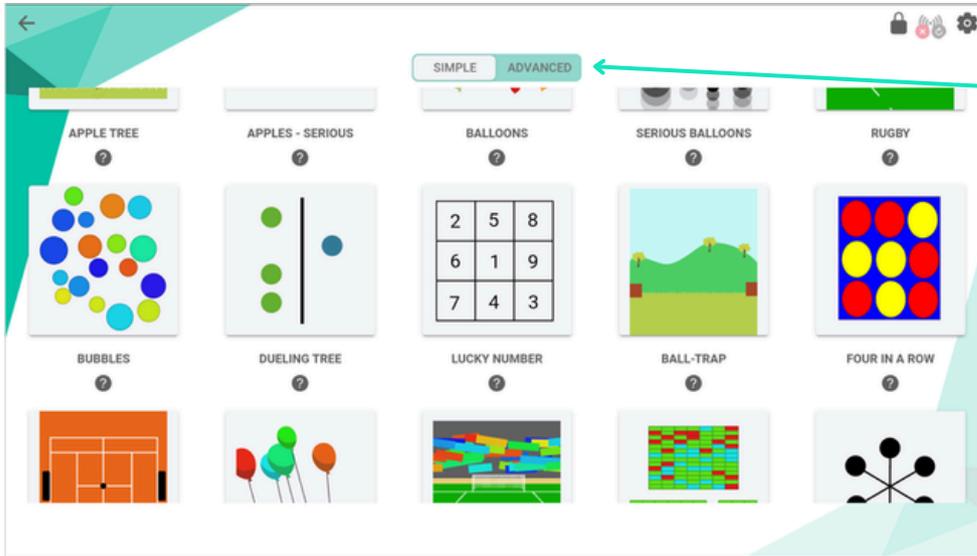
The ADVANCE function enables you to customize the game, including the DUEL feature illustrated below (Gong tree).
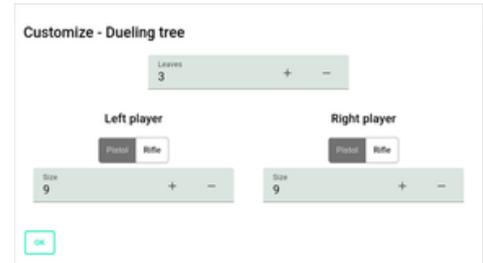
Playful Education
Selection of **26 games**

sport**quantum**

Single games
Apple Tree
Balloons (Basic/Advanced)
Rugby
Football
Bubbles
Lucky Number
 Ball Trap
Bottles
Cut the String
Wall Breaker
Wheel (Basic/Advanced) Random Targets
(Basic/Advanced)
Pipes

Multiplayer games
Dueling Tree (Basic / Advanced)
Four in a Row
Pong
Tic-tac-toe
Darts (Basic / Advanced)
Archery
Wheel of Fortune

Shooting game event

Balloon competition

Aim at the balloons to burst them.
Will you be capable of predicting their trajectory and targeting the swiftest and smallest among them ?
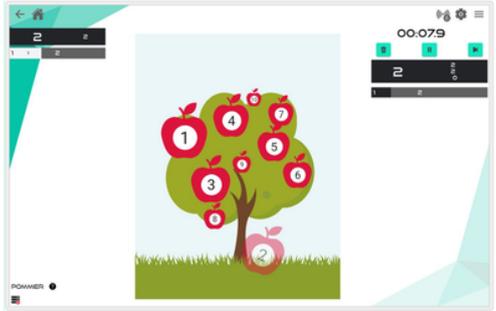
Apple Tree Game

Aim to strike as many apples as possible using the fewest pellets.
How many points can be obtained with 10 pellets ?
How many pellets are required to strike all the apples ?

Multiplayer gaming
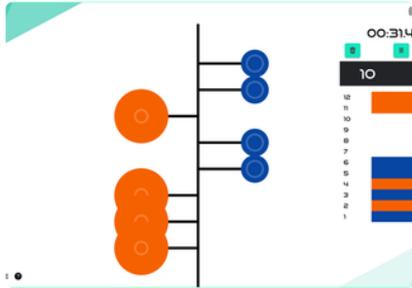
Dueling Tree:
Dueling competition with a friend.
The objective is to transport all the pallets to the opposite side.
When all the paddles align on one side, the respective player emerges victorious.
Who will emerge as the fastest?
Two players engage in a simultaneous competition, aiming at the target while each utilizes their distinct leaf color.
Upon being struck, a target alters its color and shifts to the opponent's side.
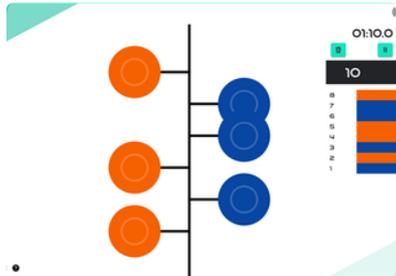
(Configurable) area of access

Export Outcomes

Save your results in PDF or CSV format.

sport**quantum**

Select this icon ≡
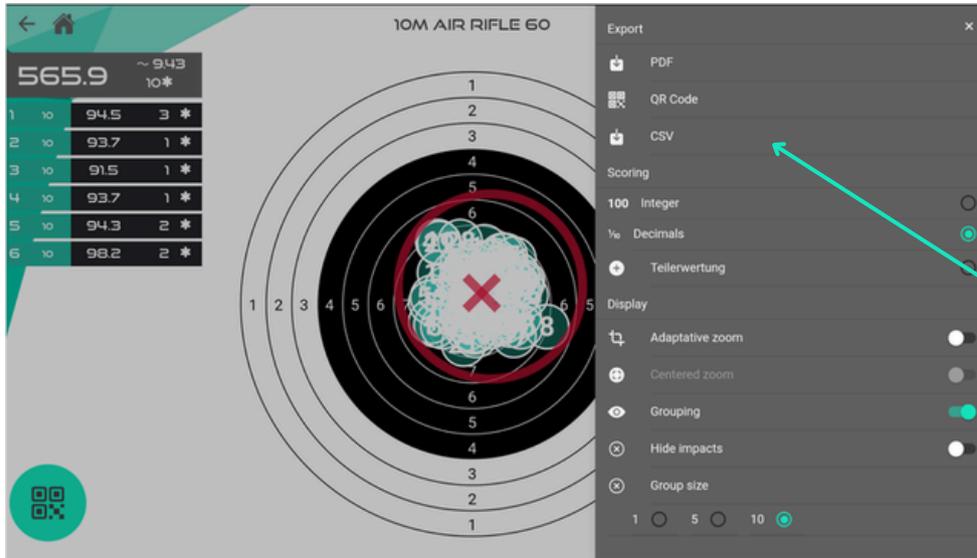
Click "PDF" or "CSV" to export the data to your device.

Save your results in PDF or CSV format.

Enter your notes and click on EXPORT.
 If a USB key is detected, the CSV file will be saved in the sportquantum folder.
For the PDF file: When a USB key is detected and the button is enabled, the PDF file must be saved on the tablet, as requested, in the Documents folder of the tablet. The file will then be automatically copied to the USB key.

EXPORT PDF

NOTES

Enter your comments...

Print in black & white

Copy on the USB key

USB key is missing ? Try to unplug it and plug it again
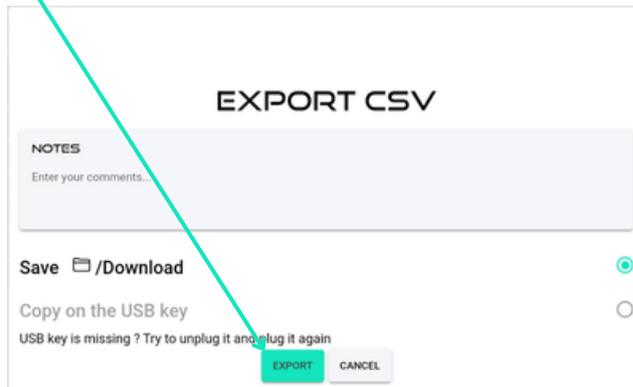
EXPORT   CANCEL

EXPORT CSV

NOTES

Enter your comments...

Save /Download

Copy on the USB key

USB key is missing ? Try to unplug it and plug it again

EXPORT   CANCEL

Save your results in PDF or CSV format.
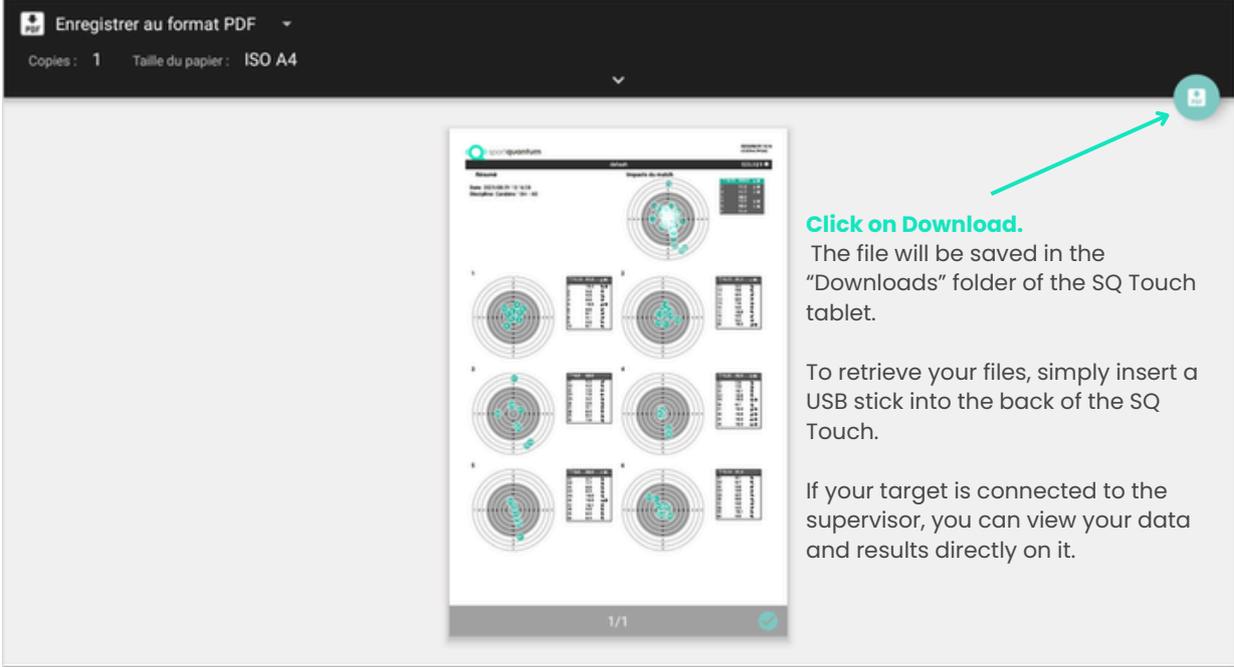
Click on Download.
The file will be saved in the "Downloads" folder of the SQ Touch tablet.

To retrieve your files, simply insert a USB stick into the back of the SQ Touch.

If your target is connected to the supervisor, you can view your data and results directly on it.

Export : QR Code

A practical method for exporting shooting results directly to a smartphone involves utilizing a QR code generator. This approach streamlines the process in comparison to exporting PDF and CSV files, particularly in kiosk mode.

Select "QR Code"
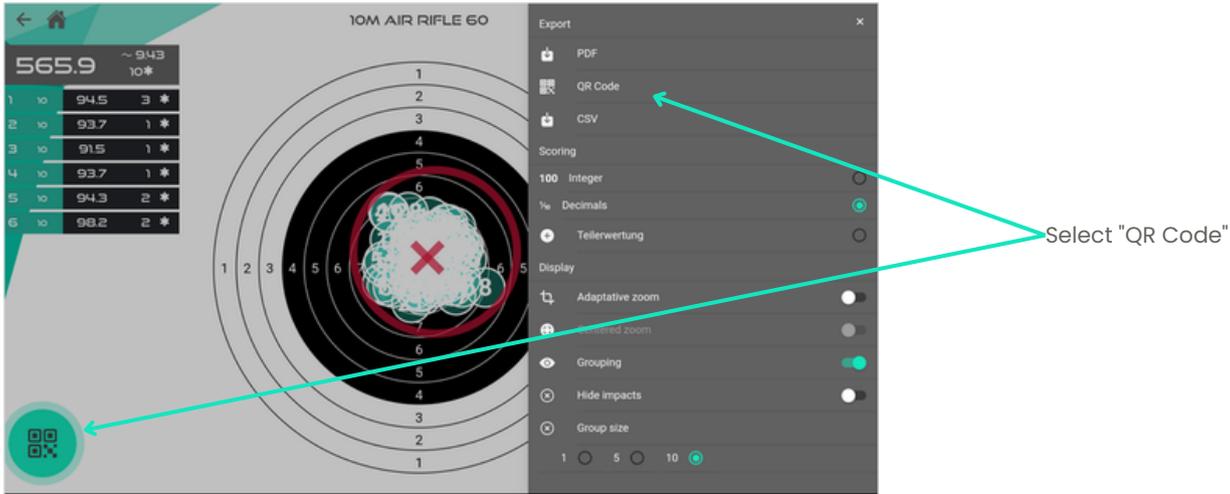
Export : QR Code

- On your mobile device or tablet,
- Launch the integrated camera application.
- Aim the camera at the QR code.
- Select the link that appears on your phone or tablet.

Scan the QR Code

DEMO

Click to watch the demonstration video

sportquantum
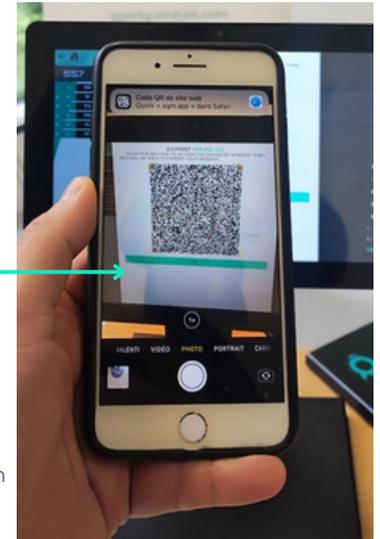
Export your data
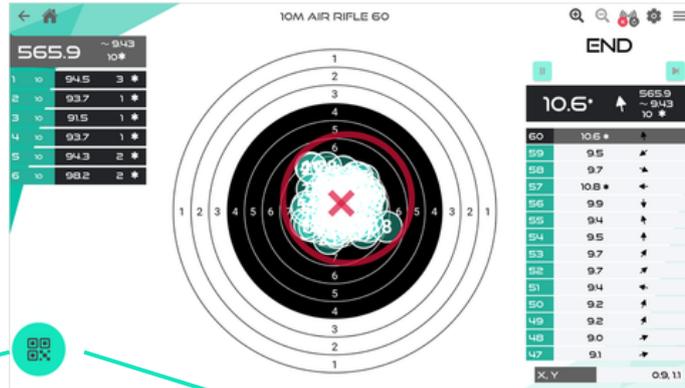
To export the data to the tablet or view your statistics

Digital dashboard

- On your phone, you will have the capability to analyze and comprehend your match.
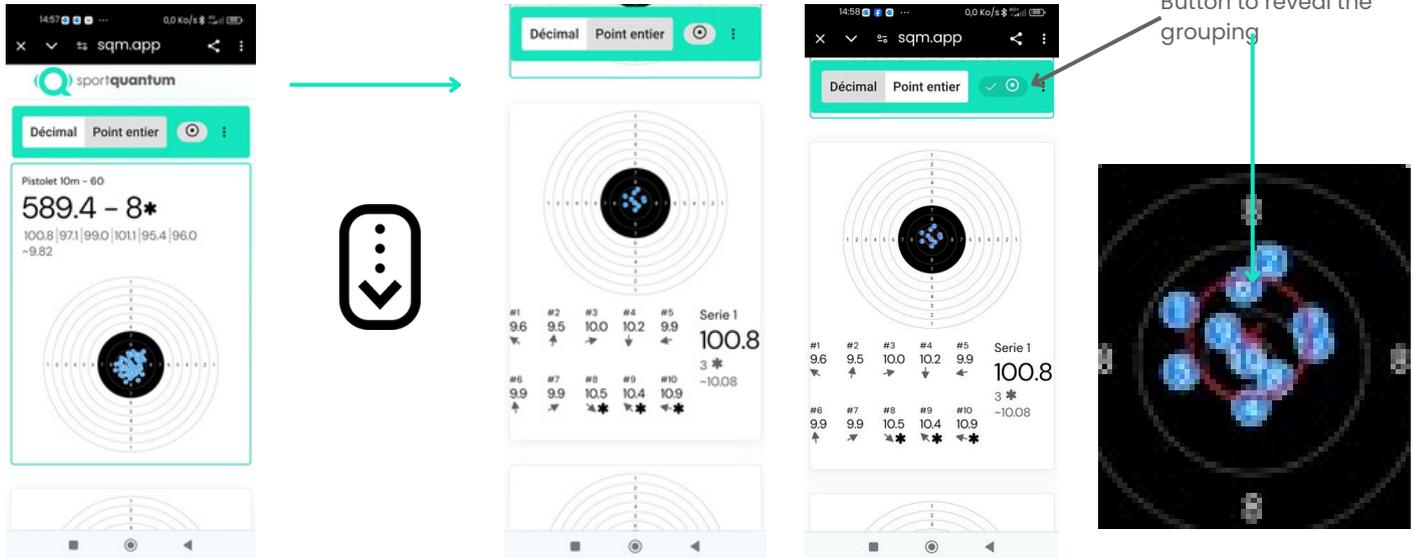
Button to reveal the grouping

Digital dashboard

Your shooting statistics are presented on your phone.

Digital dashboard
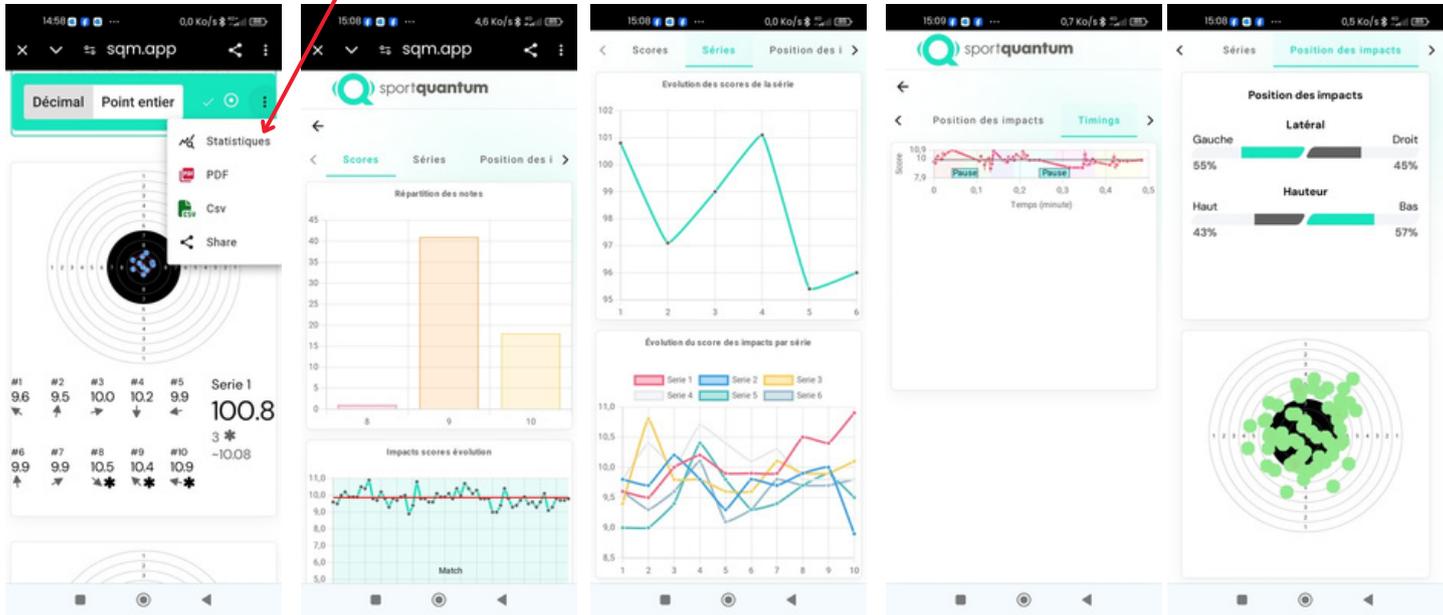
Additionally, you can generate PDF or CSV files to preserve your data.

Please share on your social networks.

Technical Specifications

![sportquantum logo]

SQ Air 10 – General overview

Target power supply

SQ Touch (tablet) + Power supply + RJ45- Ethernet- network cable

Target SQ Air 10

Mounting bracket + 2 screws

Target dimensions

Side

Screen
Sensor plate
Top-plate

Pellet guard
Pellet collector drawer

A-A
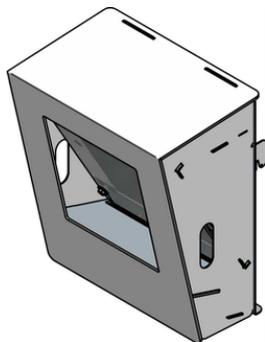
NB : All dimensions are expressed in millimeters (mm)
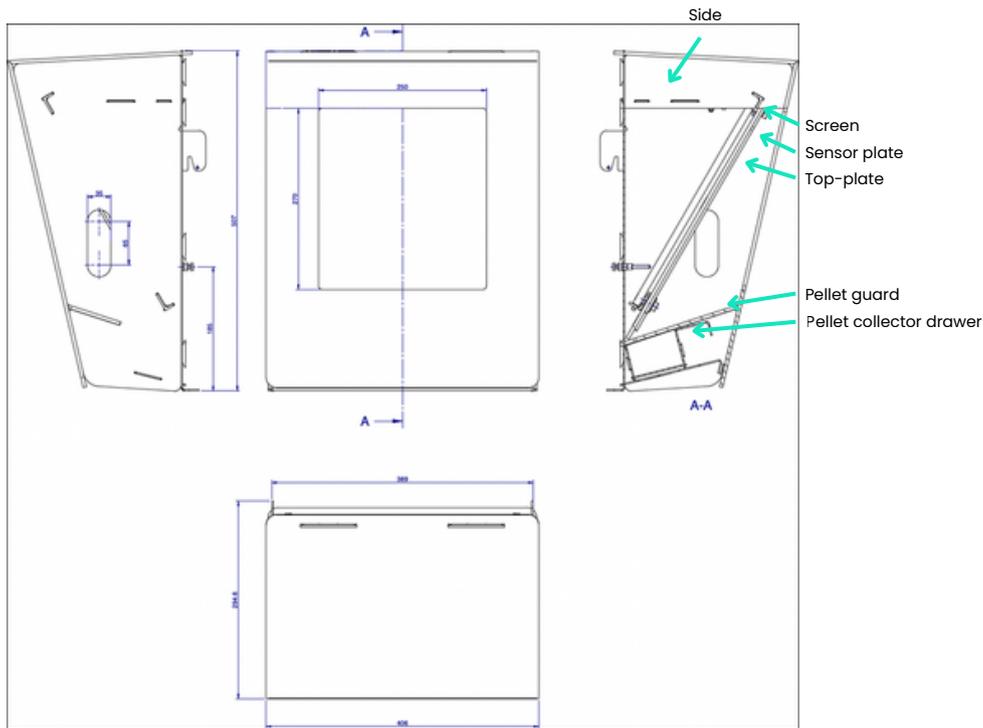
SQ Touch – Connectivity Solutions

USB enables external devices, such as USB drives or remote controls, to transfer files (export scores, update the application).

The LAN port enables direct connection of your SQ Touch to the local network via Ethernet or Power over Ethernet (PoE), facilitating both data transmission and power supply.

HDMI for direct connection to a screen or television (tablet display)
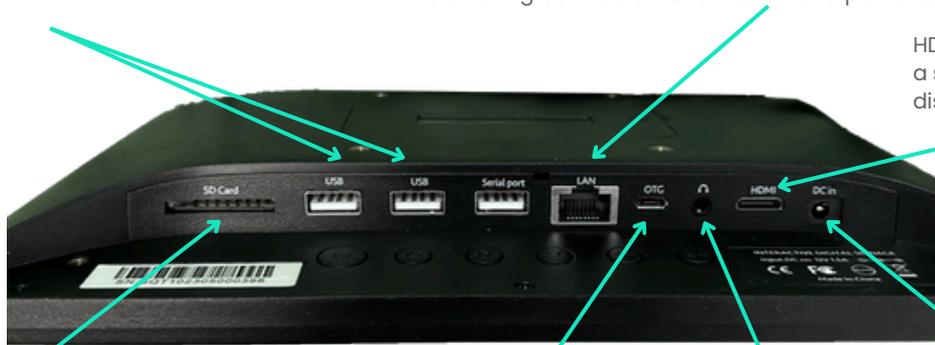
micro SD slot

The OTG, or On-The-Go adapter, enables the connection of your tablet to a computer for file transfers, such as exporting scores or updating the application.

Connect a DC 12V power supply if the tablet is not powered through the PoE LAN port.

3.5mm audio connectors

SQ Touch - Configuration

The SQ Touch power button is situated on the back panel.

Return to the SQ Touch homepage.

Modifying the brightness of the SQ Touch

Modifying the audio settings of the SQ Touch

Target technical specification

Description	Technical Specifications
Dimensions	507 mm x 406 mm x 295 mm
Weight	9 kg
Maximum weapon muzzle energy at 10m	7.5 J (joules) recommended (premature top plate wear above 8 J)
Main power supply	110-240V AC / 50-60 Hz
Power supply to the target	12 V DC
Temperature	Operation range 0ºC - 35ºC, storage range -10ºC - 60ºC (storage below 0ºC might cause premature wear of the system)
Humidity	8-80%
Power consumption	25 W
Maximum brightness	1500 Cd / m²

Initial installation process

Getting started with SQ Air 10 interactive target

SQ Air 10
Target
9 kg

1.42 m

Bolt to adjust the target vertical orientation

10m

1.40m

1.42m

1.47m

10.18m
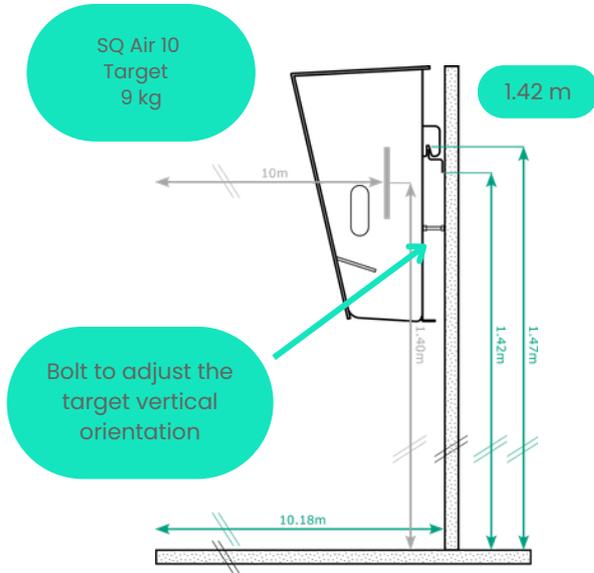
The target must be securely fixed :

- Using the supplied wall-mounted bracket (see attached diagram)
- Using a optional supported tripod.

For all other mounting options, please refer to the accessory instructions

- The back of the target must be 10.18m at the firing line
- The center of the precision pistol target visual must be set at 1.40m from the ground. To do this, the bottom of the bracket must be set at 1.42m or the top of the bracket or tripod must be set at 1.47m.

Setting up the target

- Fix the bracket to the wall using the supplied screws and wall plugs (for concrete walls)
- Hang the target on the bracket using the two hooks on the back of the target
- Use the screws and bolts on each side to adjust the vertical tilt of the target.

Use a spirit level to check verticality

- Put the corresponding SQ Touch tablet on the shooting lane table

Precaution of use

- **Important**: before the first use, apply some silicon gel using a clean cloth, apply a little silicone gel to the plycarbonate top-plate impact plate that protects the SQ Air 10's sensor plate
- Repeat this action regularly to create a light protective film, especially at the center of the target
- Between two maintenance sessions with silicone gel, clean your target with rubbing alcohol and a soft cloth to remove potential dust traces
- Position the power supply unit in an area protected from direct fire
- Once your target has been powered off, it can be powered back on either by shooting at it or by unplugging and plugging back the power supply after 10 seconds.
- **Important** : Do not shoot at the target without the cover or the pellet drawer

The rifle visual might not appear at the center of the target. This is a normal behavior to increase the durability of the top-plate : every ~100 impacts, a new center position is will be automatically selected when possible.

This behavior can be adapted by the supervisor to garantee competition fairness between athletes.

When a new top-plate is installed, the impact counter and center position is reset to the initial center position. To reset the top-plate impact counter, go to the connexion page and click "Reset Top-plate counter

Peer-to peer Wi-Fi setup ⚠️

The Wi-Fi connection quality between the tablet and the target may be influenced by the surrounding environment. Specifically, a high concentration of Wi-Fi devices such as smartphones, computers, targets, tablets, or disruptions from radio frequencies caused by metallic walls or tables can significantly degrade the Wi-Fi signal. In such instances, the connection between the tablet and the target may experience slowdowns or interruptions.

This is a known limitation of the Wi-Fi technology and is independant of the SPORT QUANTUM product.

In situations where high reliability is crucial, such as official competitions, it is strongly recommended to use wired connection.

Connection status between the SQ App and the target
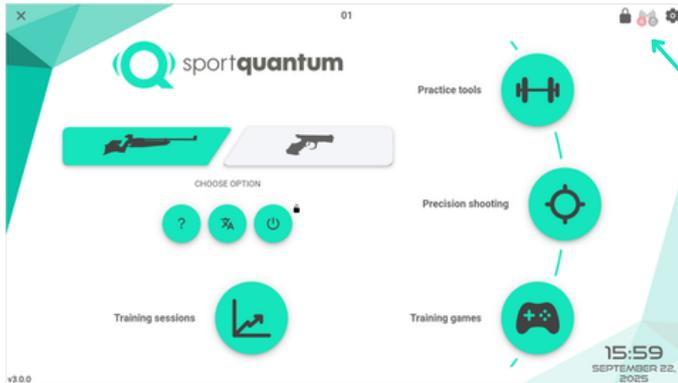
- **Connection status** to target (click to go to the connection settings)

Different possible status:

- SQ App is connected to the target

- The SQ App is not connected to the target. Please refer to the trouble shooting section p73

- The SQ App is currently trying to reconnect to the target

Connection settings

Shutdown the target

DEVICE CONTROL

⏻ STANDBY DEVICE

DEVICE IMPACTS 1234
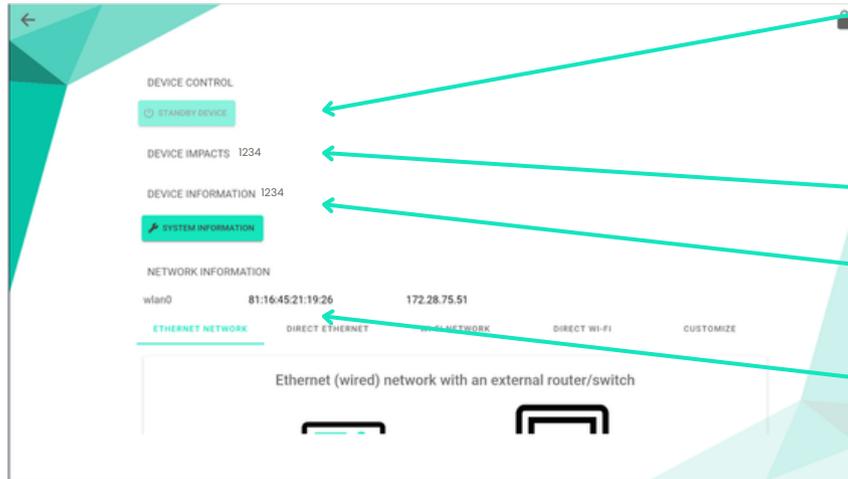
Number of impacts received by the target

DEVICE INFORMATION 1234

🔧 SYSTEM INFORMATION

Number of hits received by the target
Click on "Reset hits on backplate" to set the number of hits received by the backplate back to zero.

NETWORK INFORMATION

wlan0   81:16:45:21:19:26   172.28.75.51

ETHERNET NETWORK   DIRECT ETHERNET   WIFI NETWORK   DIRECT WI-FI   CUSTOMIZE

System information (expert)

Ethernet (wired) network with an external router/switch

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4 connection options for your target: network or point-to-point
You can easily configure your tablet according to the type of connection used in your shooting range (wired Ethernet network, direct wired Ethernet connection, Wi-Fi network via a Wi-Fi router, direct Wi-Fi connection).
A restart of the tablet will be required.

Connection settings
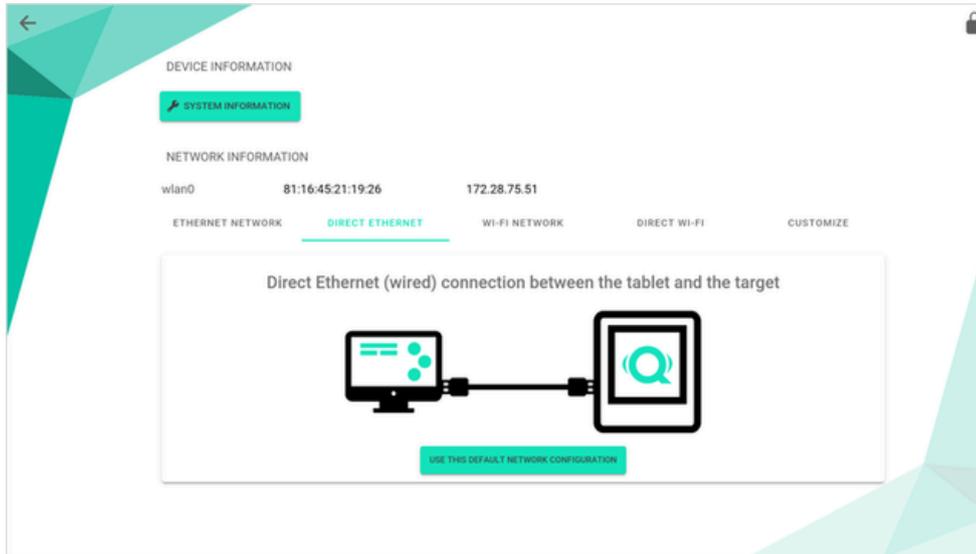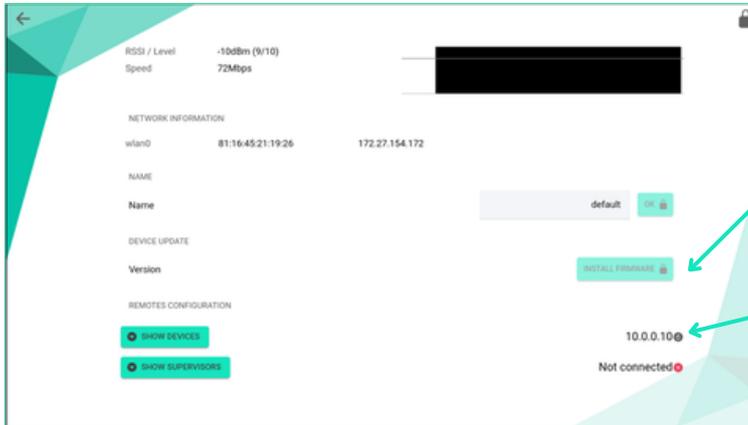
- Target firmware update. Please refer to maintenance section for futher details

- Current configured target IP address and connection status

If necessary, you can manually modify the configured IP address that the application uses to connect to the target.
Warning: Your system may no longer function properly after this modification.
To return to the default settings, use the tabs in the "Network Information" section.
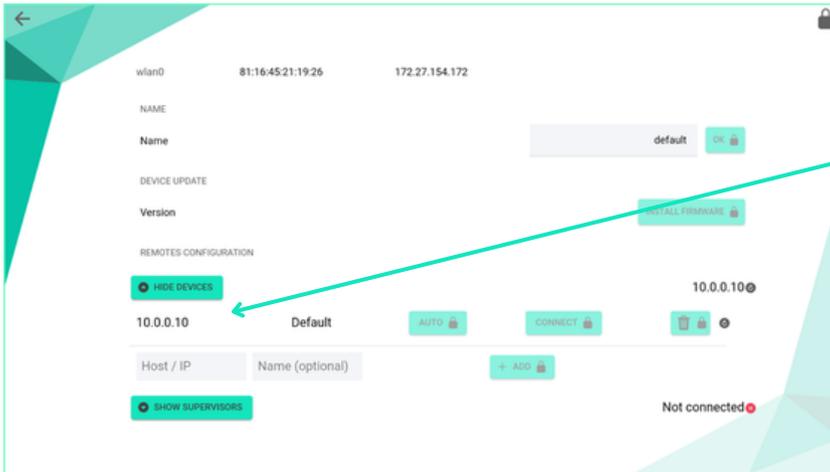
To add a new IP address configuration, enter the new IP address in the "Host / IP" dialog and click "Add" and "Connect". Then choose if this new connection will be the one used automatically by clicking the corresponding "Auto" button.

⊙ **Show devices**

Troubleshooting Wi Fi connection problems
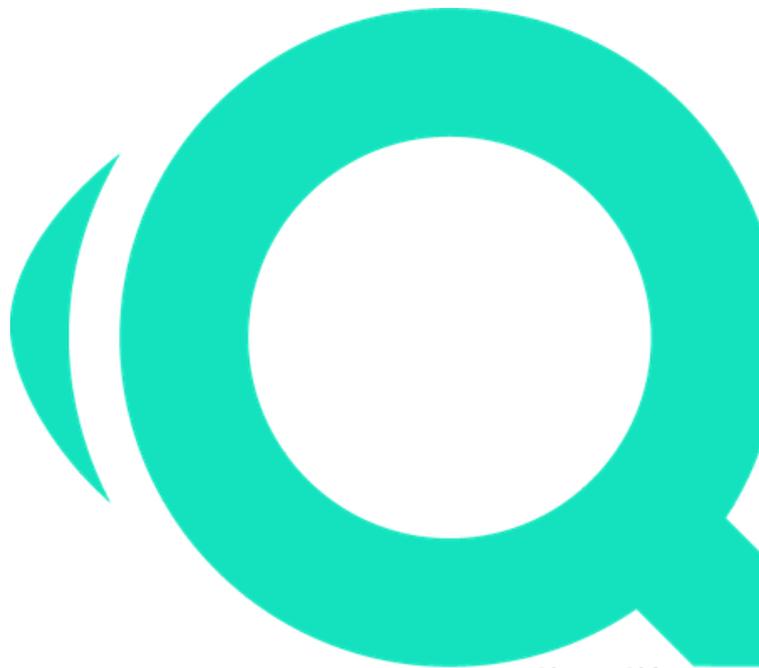
Possible Cause 1: The SQ Touch Wi-Fi tablet is not paired with the target (point-to-point mode).

First, verify the pairing status of your tablet with the target

1. Quit the SQ App

2. Click on "Settings"

3. Check if the WLAN status below the WLAN line is "enabled" (see next step 4) or "disabled" (see next step 5).

4. If the status is "enabled", verify that the specified SSID is "SQ Target XXXX" of the corresponding target (might wrongfuly paired with your Internet box, a mobile phone etc.). If the corresponding SSID is correct, go to next page "Possible cause 2", else continue to step 5.

5. If status is "disabled" or the SSID is incorrect, click on the WLAN line and select the correct SSID "SQu Target XXXX" of the corresponding target. You can find this SSID at the bottom of the target screen. Enter "sportquantum" as the default password if asked.
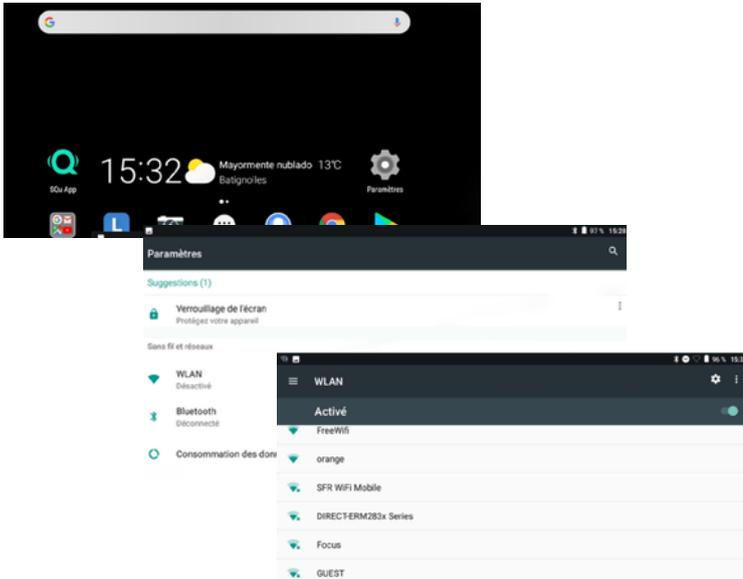
Possible cause 2 : The SQ App is is not connected to the target
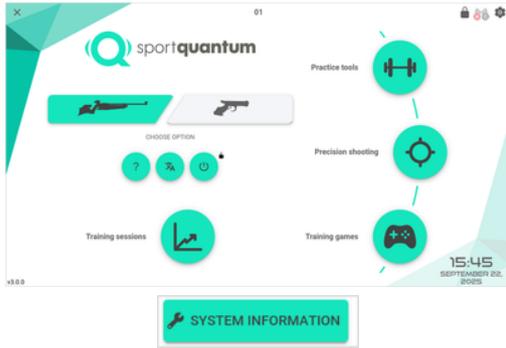
Please verify in the previous page (Possible cause 1) that the SQ Touch tablet Wi-Fi is paired with the target.

1. Go to the homepage of the App

2. Click on the (⚙) settings icon at the top right

3. Scroll down and verify the message displayed in the "Remotes configuration" section. If "Show devices" line shows "Not connected" with a red cross or if the line shows an IP address in the format "XX.XX.XX.XX" with a red icon after, proceed to next step. If the line shows a green icon, your connection is operational

4. On the corresponding target, check the configured IP displayed on bottom line of the target screen (in the format "XX.XX.XX.XX"). NB: If your target is in peer-to-peer mode, it should show "10.0.0.10"

5. Click on the (🔒) icon to unlock the settings. The default password is "1896"

6. Click on "Show targets" and click on "Auto" and "Connect" in front of the default line "10.0.0.10" if your target is in peer-to-peer mode. Otherwise go to step7

7. Enter in "Host / IP" field the IP displayed at the bottom of the corresponding targtre screen (in thr format "XX.XX.XX.XX") and click "+Add" 8.
On the new added line, click "Auto" and "Connect"

Service
&
Support
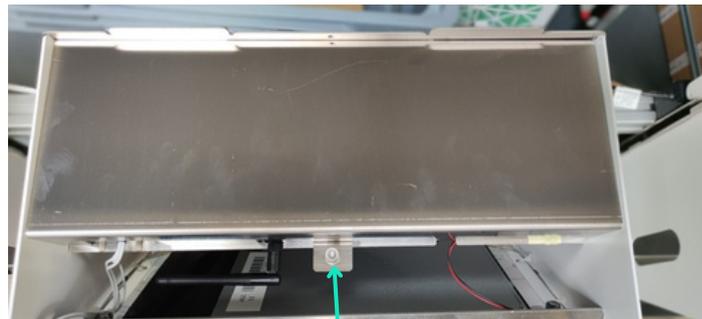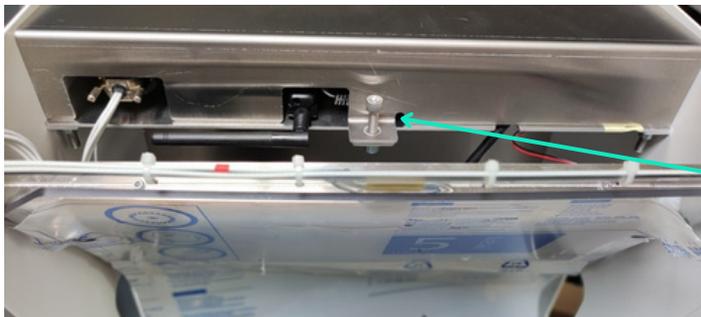
Electronics unit

Remove the screw to access to the electronic unit

Electronics unit

Computing board

Display cable

Sensor board

Display LED driver

Display LVDS driver

Wi-Fi adapter
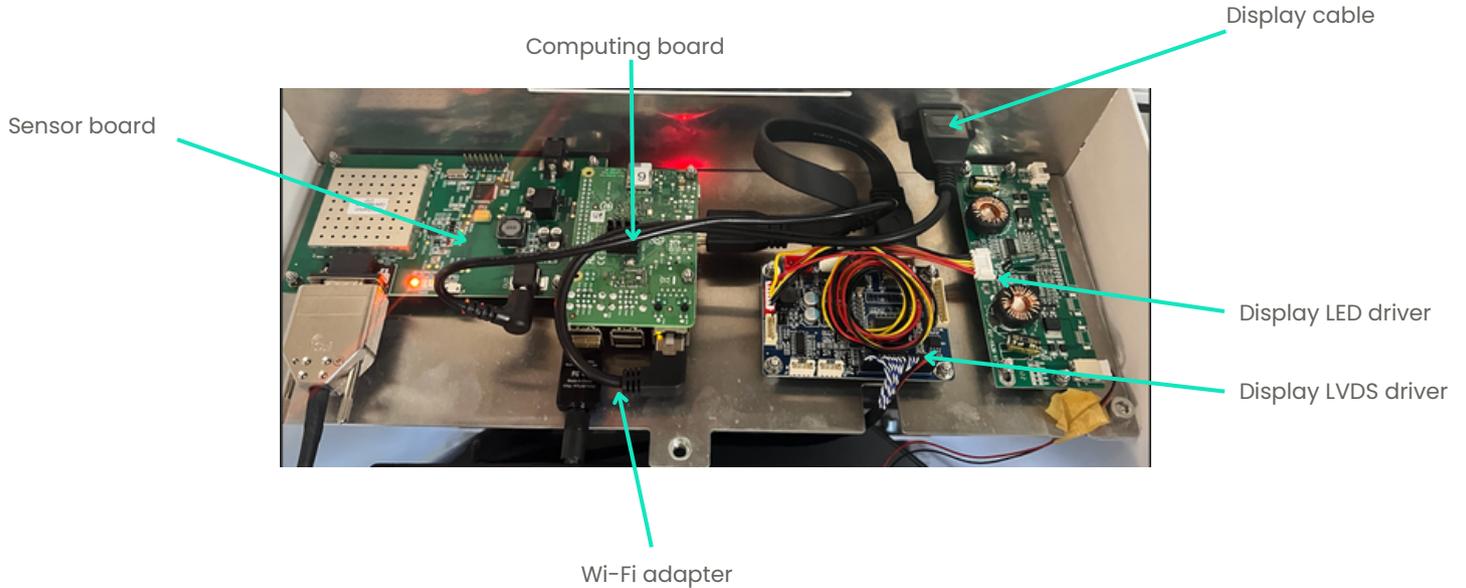
The serial number is located in front of the target, at the bottom right.

Please always refer to the serial number in all your communication with our support team

Troubleshooting

- **Target doesn't light up:**

1. Check if the power supply is correctly plugged on both ends
2. Check the red LED on the sensor board.
 If the sensor board LED is off go to step 2, else go to step 3.
2a. Check if the power supply is not damaged (you can test on another target). If the power supply is damaged, it needs to be replaced.
2b. If the power supply is working, then the sensor board needs to be replaced.
3. The sensor board and the power supply are working correctly. Check the red LED on the computing board. If the computing board LED is off it needs to be replaced.
4. Check if the SQ Touch can connect correcly to the target (even if the target display is off). If it can connect go to step 5, else go to step 7.
5. Check if the display cable is correctly plugged in.
6. Check if the LED driver and the LVDS driver are correctly connected. If the problem persists, contact support
7. Update the Firmware on a new SD card on the computing board (refer to specific maintenance procedure). If the SQ Touch cannot correctly connect after this procedure, the computing board needs to be replaced.

Troubleshooting

- **Target and the tablet are switched on but connect icon shows a red cross**

1. If you have a Wi-Fi installation check the Wi-Fi pairing : refer to the procedure p59, else go to step.
2. If you have a wired installation, check if the RJ45 are correctly plugged in.
3. Check the SQ App/target connection parameters.
4. Check that the SQ App and the target have compatible versions (in the format X.X.X).
Version of the target firmware can be found on the bottom left of the screen.
Version of the App can be found in bottom left of the home page.
The first two numbers should be the same (for instance App v3.0.0 and target firmware v3.0.0).
 If the versions are not compatible, upgrade either the App or target firmware.
5. If the problem persists, contact your local support.

- **Impact not detected :** Your target displays lines of code that read "Parasite impact: minError=885.131 vIdeal=1.560975"

1. Check that you do not have a "parasite impact" message in the App (🔔) icon.
2. If you have "parasite impact messages", check that there is no silicon oil or air bubbles that are trapped between the sensor plate and the top-plate (impact plate).. Otherwise, disassemble the top-plate and clean both internal surfaces with rubbing alcohol.
3. It's is necessary to reapply a small quantity of silicon oil on the exterior surface of the top-plate (impact plate)is necessary.
4. Change the top-plate (impact plate).
5. Check that the sensor plate connector is correctly plugged in the sensor board.
6. If the problem persists, contact your local support.

![sportquantum logo]

Troubleshooting

You are experiencing connection problem between the target and the tablet.
The tablet is not displaying successes even though the target seems to be working perfectly.

1. Switch off your entire targeting system:
-SQ AIr 10 target: Unplug your targets because when you switch them off using the tablet, they go into standby mode.
- SQ Touch tablet: As tablets are fitted with batteries, you should switch them off completely by pressing and holding the power button.

2. Then switch your system back on in the following order...
1. The SQ AIr 10 target first (White logo on black background , then white back ground and grey logo)
2. Once your SQ AIr 10 target displays the green Sport Quantum Q on a white background, you can switch the SQ Touch tablet back on. When the background of the target screen turns green, the tablet is connected.
If, despite these steps, the problem persists, contact your local support
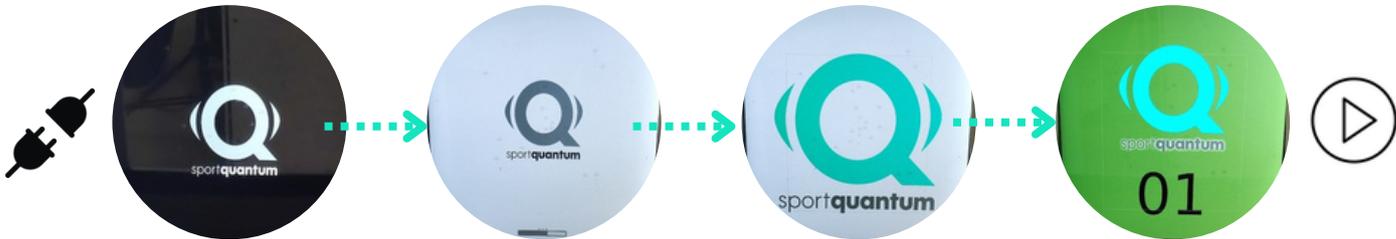
Maintenance

Recommended maintenance procedure

- In order to guarantee optimum operation of the Products, the Customer undertakes to :
- Respect the maintenance operations indicated:
  - The surface of the SurplaQue (impact plate) must be cleaned using a clean cloth and rubbing alcohol.
  - Do not use acetone. Do not spray anything on the target.
  - The pellet tray must be emptied before being filled to 3/4 capacity.
  - Regularly check that there is no dust inside the product and at least clean up twice a year
  - As a result of electrostatic phenomena, dust may trapped between the screen and the transparent polycarbonate impact plate, so unscrew the polycarbonate plate (4 screws) and clean the polycarbonate plate and the screen with product suitable for cleaning TV screens or computer screens.
  - Once a year, the target should be dusted with a compressed air spray suitable for cleaning computers, cameras or any other electronic device.
  - Never use acetone on the polycarbonate plate
  - If the top-plate (impact plate) shows significant deformation, replace it with a new plate supplied by SPORT QUANTUM
- Update the Solutions whenever SPORT QUANTUM provides information.
- Failure to follow the maintenance rules may result in faster deterioration of the Products and, above all, loss of the warranty.
- The Customer is responsible for carrying out the necessary maintenance operations as defined, at regular intervals and in a professional manner. To this end, the Customer must employ competent personnel for the operation and maintenance of the Products.

Warranty

Warranty

SPORT QUANTUM guarantees that all delivered products will be free from any physical and manufacturing defects under normal conditions of use and service for a period of two (2) years from the delivery date.

If a product is faulty, SPORT QUANTUM or the local distributor may either replace it (with at least an equivalent product) or repair it (with refurbished spare parts or new spare parts), as the company or the distributor deems fit.

The Customer must give SPORT QUANTUM time required, as well as the opportunity, to carry out the repair or replacement.

This warranty is only valid if the original invoice (showing the date of purchase, the type of product and, if applicable, the name of the distributor) is enclosed with the faulty product.

SPORT QUANTUM reserves the right to refuse to carry out a repair free of charge if these documents are absent, incomplete or illegible.

The warranty is not valid in the cases provided for in the General Terms and Conditions of Sale. Nor does the warranty cover parts affected by normal wear and tear, as specified in the General Terms and Conditions of Use of the products.

Extension of Warranty

If the Customer subscribes to an annual warranty extension, the Warranty and Repair Conditions keep their full validity, except for the duration of the warranty.

The warranty period is :

- For new Products: Two (2) years from the date of pick-up by the carrier.
- For repaired Products: Six (6) months on repaired Products and on replaced spare parts, from the date on which the carrier takes delivery of the repaired Products.
- In the case of a subscription and for the "continuous" supply of Solutions: at any time during the subscription period.

Management faults during the warranty period

- Service and support form can be downloaded from **www.sportquantum.com** must be duly completed and enclosed with any faulty item. Customer may be charged for the diagnostic costs. If the form is not provided
- During the warranty period, SPORT QUANTUM or the local Distributor will organize the transport at its discretion.
- SPORT QUANTUM shall bear the cost of repairing and returning the item to the Customer if the fault is covered by the warranty.
- If the fault is not covered by the warranty, as stated in the General Terms and Conditions of Sale and the General Terms and Conditions of Use of said product, the request will be treated as an out-of-warranty fault., that is to say that transport costs, administrative fees and maintenance costs will be invoiced to the Customer.

Management of out-of-warranty faults

- Service and support form can be downloaded from **www.sportquantum.com** must be duly completed and enclosed with any faulty item.
- The Customer will bear the cost of transport to SPORT QUANTUM or the local Distributor and the return shipment costs.
- For each repair request, there will be an administrative fee.
- Labour will be billed and the spare parts will be invoiced at their list price at the time of the repair.
- Please contact SPORT QUANTUM or your local distributor regarding any express repair request.
- If no fault is found, the Customer will still be invoiced the administrative and diagnostic fees.

Compliancies

General Recycling Statement
- SPORT QUANTUM encourages owners of electronic equipment to responsibly recycle their equipment when it is no longer needed.

Information about Recycling in the European Union
- The top-plate (impact plate) as well as the plastic hood shall be disposed with recyclable waste

Important Battery and WEEE Information
- Batteries and electrical and electronic equipment marked with the symbol of a crossed-out wheeled bin may not be disposed as unsorted municipal waste. Batteries and waste of electrical and electronic equipment (WEEE) shall be treated separately using the collection framework available to customers for the return, recycling, and treatment of batteries and WEEE.
- When possible, remove and isolate batteries from WEEE prior to placing WEEE in the waste collection stream. Batteries are to be collected separately using the framework available for the return, recycling and treatment of batteries and accumulators.
- SPORT QUANTUM products sold in the European Union, meet the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Declaration of Conformity with the Requisite CE Standard
- Conformity European Union

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Terms and conditions

Safety rules for product use

- The Rules of Use below detail the rights and obligations of SPORT QUANTUM's customers when using a Product or Solution. It is the Customer's responsibility to pass on these Rules of Use to all Users of the Products and Solutions, and to ensure that they are respected. In the case of an authorized minor User (under 18 years of age), the Customer must transmit these Usage Rules to the holder of parental authority, who accepts them and ensures that the minor child has understood them.

  In order to guarantee maximum safety in the use of the Products, the Customer and/or User must ensure in particular, but not exclusively, that :

  - The place where the Product is installed and used is adapted to the safety requirements of Sport Shooting, in accordance with the regulations of the country in force, and with the rules of use of Sport Shooting as promoted by the International Sport Shooting Federation (I.S.S.F.) or the Sport Shooting Federation of the country where the target is used.
  - Any spectators or other persons must be behind the shooter.
  - All safety rules relating to the use of weapons must be observed.
  - It is imperative to shoot facing the target, with the weapon strictly perpendicular to the hanging plane, the target itself being mounted vertically using the adjustment screws. The shot must land on the dedicated surface, i.e. the screen.
  - All users and spectators are under the supervision of a person capable of ensuring compliance with all the safety rules governing the practice of Sport Shooting, in accordance with the aforementioned safety requirements.
  - In addition, to prevent any risk of electrocution, never immerse the cord, plug or device in water or any other liquid, and never carry out maintenance operations when the equipment is live.

Dangers inherent to sport shooting

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Consequently, SPORT QUANTUM cannot be held responsible for any accident occurring during the use of the Product.

SPORT QUANTUM provides electronic targets but is in no way responsible for their use, for the use of weapons, and for compliance with the safety rules and good practices inherent in this sport, which, given its dangerous nature, must be systematically respected at all times and by everyone.

The Products are intended for experienced Sport Shooters who are fully familiar with the rules and practices of this sport as defined by the International Shooting Sport Federation (I.S.S.F.).

Customers of SPORT QUANTUM, as well as any other User of a Product, are aware of the dangers of this sport, and undertake to respect all the safety rules applied and applicable to the practice of this sport during any use of the Product, whatever the purpose and location (in a Shooting Sport club, at a Shooter's home, or any other location suitable for Shooting Sport). In particular, but not exclusively, care must always be taken to ensure that :

- Weapons are unloaded and secured when not in immediate use.
- A loaded weapon is always in hand
- A loaded weapon is always pointed to the target.
- Under-age children must comply with the age-appropriate restrictions on access to weapons and sports as defined by current legislation.

Perfect working condition

To ensure proper operation of the Product and Solutions, the environmental conditions necessary for the use of such a target must be respected, in particular :

- In the event of malfunction, problems or damage to the Product, the Customer and/or User must disconnect it immediately and contact SPORT QUANTUM's After-Sales Service as soon as possible.
- If the Product shows signs of malfunction during use, unplug it immediately.
- Do not use a defective unit or attempt to repair it yourself.
- If the unit is dropped or accidentally immersed in water or any other liquid, unplug it immediately. Do not use the unit afterwards.
- Humidity should be at a reasonable level, and in any case below 80%.
- Product is not suitable for outdoor use.
- The Product is a precision tool. It must not be dropped or subjected to shocks other than the impact of pellets on the polycarbonate plate, the latter coming from a weapon whose power does not exceed the thresholds indicated below.
- The electrical power and current of the target's power supply must be constant and between 100 and 240 V AC 50/60 Hz.

Perfect working condition

- **Never shoot at the target without the front cover and the pellet drawer.**
- The product must be hung with care and must be strong enough to withstand the weight of the target over a long period of time, and the power of the impacts during shooting.
- The front cover must be carefully positioned, . If the target cover is damaged target must be out of use and cover raplace.
- The transformer/adapter box and the target's power cable must be protected from fire at all times.
- Regularly check that the the top-plate (impact plate) is securely screwed down, especially after each transport.
- The Wi-Fi connection quality between the tablet and the target may be influenced by the surrounding environment. Specifically, a high concentration of Wi-Fi devices such as smartphones, computers, targets, tablets, or disruptions from radio frequencies caused by metallic walls or tables can significantly degrade the Wi-Fi signal. In such instances, the connection between the tablet and the target may experience slowdowns or interruptions.
- This is a known limitation of the Wi-Fi technology and is independant of the SPORT QUANTUM product.
- In situations where high reliability is crucial, such as official competitions, it is strongly recommended to use wired connection.
- In any case, never attempt to use the Product for purposes other than those for which it was designed.

Updating of the SQ-App and target firmware

It may be necessary from time to time to obtain updates or new versions of the Solutions and/or Product firmware, in particular to correct any bugs, but also to adapt to any changes in the framework defined by the ISSF - International Shooting Sport Federation - issf-sports.org

It is the responsibility of the Customer and/or User to ensure that they have the latest available version of the SQ App and firmware. The latest updates are transmitted by SPORT QUANTUM by any available means. It is nevertheless advisable to check the compatibility of the hardware version of the Product and the available software versions beforehand.

Version Numbering X.Y.Z
Each software release has a version number in the format X.Y.Z, for example 4.7.23:
- X (4 in the example): Major version. Indicates a significant evolution, most likely incompatible with previous versions.
- Y (7 in the example): Minor version. Indicates a smaller evolution, which may still be incompatible with previous versions.
  - Even numbers → production release.
  - Odd numbers → development release.
- Z (23 in the example): Patch version. Indicates a bug fix or a small change, compatible within the current X.Y environment.

Version Compatibility
App, Supervisor, and Firmware versions are compatible if both the major (X) and minor (Y) version numbers match

Contact

SPORT QUANTUM support team

Service and Support In France
e-mail: support@sportquantum.com
Phone: +33 980 087 087
Outside France
Please contact the SQ Air distributor or
SPORT QUANTUM Customer Service

SPORT QUANTUM
4 rue René Razel
91400 Saclay
France