

Steradian

LASER TAG



X-Series User Guide

Rev. G

Thank you for purchasing or renting X-Series equipment, designed and manufactured by the staff of Steradian Laser Tag. Please call or email us with any questions regarding your equipment!

Steradian Staff

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1. Let's get started!

After unpacking your laser tag equipment, let's set up your LaserTagScores.com website and Chimera Hub interface, by following the steps below. If renting your equipment plus laptop, the website and Chimera Hub are already installed.

LaserTagScores.com will need an internet connection for first time setup, to update equipment, and to upload game scores

Step 1: Understand system requirements for your computer

LaserTagScores.com is a web application that works best on a PC (Windows 7 or above), or a Mac (OS X 10.6 and above). Older computers may work, but will require more time to install. Your computer needs Google Chrome, which can be downloaded at <https://www.google.com/chrome>.

Step 2: Log into LaserTagScores.com

Open a Google Chrome web browser on your computer and type in your [lasertagscores.com](http://www.lasertagscores.com) web address:

http://_____.lasertagscores.com

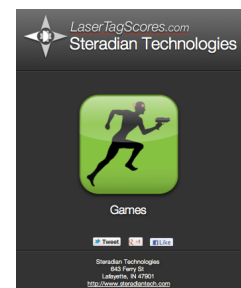
1. **Games** page is first screen to open
2. To access full website, click **Sign In** on upper-right corner of main page
3. Click on **Forgot password?** and enter your email address
4. Click on **Reset password** and email will be sent to you
5. Go to your email inbox and click on link in email you received, which opens up **Reset password** page
6. Type in a password of your choice, then click **Update User** button
7. Click **Sign In** on main page and enter your email and password
8. Check **Remember Me**, then click **Sign In** button
9. After signing in, main page will show three buttons, **Games**, **Gear**, and **Settings**

Step 3: Install Chimera Hub Windows Driver

The Chimera Hub is an RF interface plugged into your computer, which allows your computer and guns to communicate, and is *necessary to play games*. To install the Chimera Hub, make sure your *computer is connected to the internet*.

Windows PC installation:

1. Confirm your Windows Automatic Updates is turned on. Find it under Control Panel > System and Security. *Install all recommended updates before proceeding!*
2. Plug one end of USB cable into Chimera Hub, and the other end into your computer's USB port. *On desktop computers, use ports on back of your computer, for front ports may not supply enough power. If using a USB hub, you must use a fully-powered USB hub*



3. When plugging in Chimera Hub, it will automatically download a driver. If Automatic Updates is turned off, driver will fail to install
4. Upon plugging in Chimera Hub, a notification may appear on screen indicating driver was successfully installed. If Windows asks to install driver, allow it to search internet for driver. It will connect to Windows Update and find correct driver. *Be patient, because downloading driver may take as long as 15 minutes*



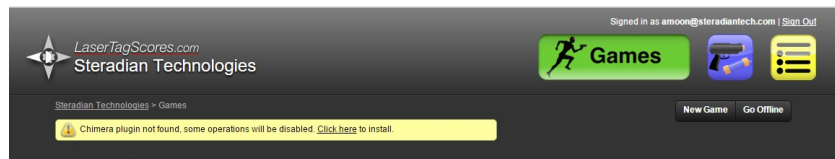
Mac Installation:

1. No driver is required

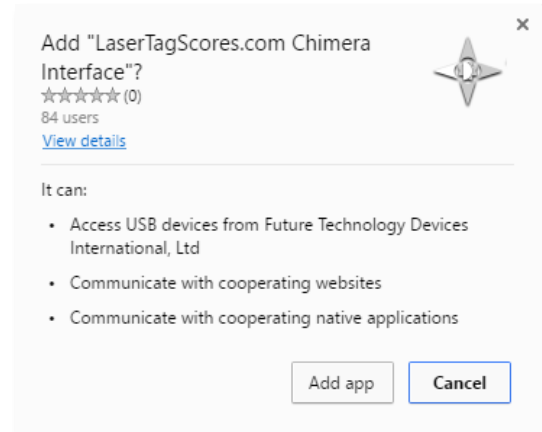
When driver is successfully installed, green power light will slowly flash on Chimera Hub.
If Power light is NOT flashing, driver is not installed properly.
Restart computer and try these steps again.

Step 4: Install LaserTagScores.com Chimera App

1. Click on **Games** button to go to Games page. First time communication with guns will prompt message stating that Chimera Plugin has not been installed — —>



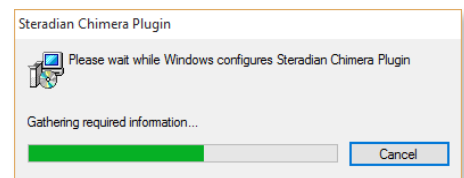
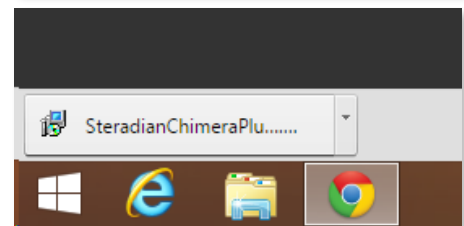
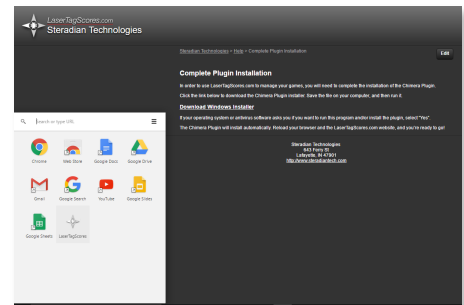
2. Click on **Click Here** to install software. This screen should now appear — —>



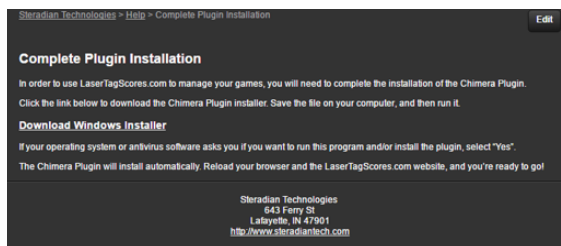
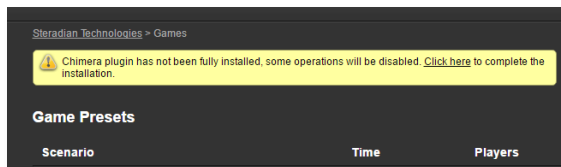
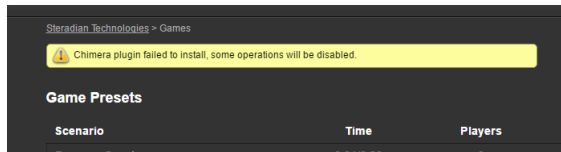
3. Click on Add App and window will *disappear with computer looking like it's doing nothing for few seconds, but IS installing*. If using a Mac, you are done. If using a Windows PC, continue to Step 5

Step 5: Install Chimera Plugin for Windows

1. On Windows PC, screen will update to look like this —>
LaserTagScores will show in bottom left window with new set of instructions on screen to complete plugin installation.
2. Click on Download Windows Installer. Download file should appear in lower left corner of window —>
Click on it to launch installer
3. Installation will start, then disappear when complete.
You're done! Can now run games using Chimera Hub and LaserTagScores.com website



Troubleshooting: Common error messages:



Do you see this error message? Did you click **Enable App**? If you clicked anywhere else, or another program took focus away from Chrome, refresh page and repeat step 4.

If you see this error message, Step 5 wasn't completed. Click on **Click here** and you it will take you back to the Complete Plugin Installation page.

On this **Complete Plugin Installation** page, follow Step 5 again. Make sure Windows or an anti-virus software isn't blocking download or running file.

Still not working?

1. **First try rebooting Windows as this sometime resolves the issue**
2. **Does hub have green blinking power light? If not, problem is with installation of driver or power of USB port. Refer back to Step 3, and follow instructions**
3. **If there IS a green light, driver is installed correctly. Problem is related to browser. Make sure you are using Google Chrome and revisit Steps 4, 5**

If you are still experiencing problems, please email us at sales@steradiantech.com or call us at (765) 420-9201 and we're happy to help!

2. Settings, Gear, and Games

Now that your website is up and running, let's look at the 3 buttons on your home page which allow you to change many settings, add your company information, link your new LaserTagScores.com website to your own company website, manage your gear, run games, look at live scoring, plus a lot more!



Settings

Change website and game settings, create teams, add company information:

Subdomain: Web address that precedes LaserTagScores.com (changeable by Steradian)

Name: Name of you or your company, displayed at top left of every page

Time Zone: Your time zone

Logo: Logo of your company, visible on bottom left of every page (JPG, PNG, GIF)

Contact: Information about you or your company, displayed on bottom middle of every page

Website: Your website (not LaserTagScores.com), displayed on bottom of every page, below contact information

Default Pregame Time: Default pregame time for all games (or set different time on New Game window)

Scoresheets: When checked, detailed information for each player's score will print. When unchecked, it will only print players score. Important: Will also print *your contact information* at bottom of page

Sort players by score: When checked, players who scored more points, will show on top of scores.

When unchecked, players will not be ordered by score

Update Facility: Save changes

Teams: Where teams are created, which can be edited or destroyed

Add Team: Create new team, choose team color, create team name

Users: Add users, which can be edited or destroyed

Add User: Create additional users, by adding their email. Check admin box if allowed to access all features of the website. Non-Admins will only be able to access games page, and cannot delete games



Gear

Manage and update your equipment:

Name: Name/number assigned to each piece of equipment, which corresponds to number on sides of each gun (or your choice of name). Click on name to edit name, preferred team, and active status of that gun.

Can also Update Sounds, Update Firmware, and Recover Equipment (contact Steradian for assistance)

Preferred team: If teams have been created on Settings page, guns can be assigned to a team

Model: Model of gun or equipment

Serial: Serial number of gun, which can be found on back of Sunband (small black box w/cord), on bottom of Chimera Target, and battery of Chimera Base

Active: Check box to use equipment in game. Uncheck to make equipment unavailable for play. Active equipment will be placed in **Unassigned** when creating a new game, available for dragging into game

Identify: Click to cause gun to beep, for identifying mislabeled gun. Gun must be powered on when identifying

New Gear: Click to add new gear to list of equipment. Equipment must be powered on when adding

Discover Gear: Click to automatically mark nearby available guns as **Active**. Make sure any equipment to be **Active** is powered on



Games

Run games, create game presets, watch live scoring, look up scores from past games:

Game Presets: Games created to play over and over. Click on name of preset created by you, then New Game window will open to play preset. Ensure Chimera Hub is plugged in and equipment listed in preset is turned on, before pressing “Start Game” - quick way to start a game!

Recent Games: All games recently played plus teams’ scores. Click on Scenario name to view individual players’ scores. View players’ scores in detail by clicking on their gun name

Active Games: View games currently being played. To end game early, press black square button on right side of page

New Game: To start new game. Each game in scenario list has several different settings, which are explained in detail for each specific game starting on page 10, **X-Series Scenarios**. Drag and drop unassigned equipment to various open Player, Base, Target, etc. boxes

- Up to 4 teams are available in some games - choose number of teams on *New Game* window
- Create multiple personalized Preset names by clicking on **Name** in **New Game** window - results in different name for easy selection
- Assign a player name to each gun for each game, by double clicking on gun on **New Game** window, and entering name in dialog box. Create Preset to save names with guns, to use when needed. To start new game with new set of players and new set of names, repeat steps

Go Offline/Go Online: To play games without internet

1. Go to Games page *while internet is on*
2. **Bookmark** page for later use (for when internet is not available), or for easy access to website
3. Press *Go Offline* button (will then say *Go Online*)
4. Keep browser page open or exit for later games
5. Click on bookmark to go to games page, even without internet
6. Will not be able to upload scores for other people to see, until internet is on, then press *Go Online*
7. Will automatically upload any games and scores that have been played while offline

Viewing Scores: On Games page, click on any scenario listed under Recent Games, to view scores. To view detailed scores for a gun in that game, click on gun number

Sharing Scores: Every page has a Twitter, Google+, and Facebook icon at the bottom. Click icon to share this page

Live Scoring:

- Live scoring (updates every 10 sec) can be viewed on Game Details page, by double-clicking on any Free for All game
- Live scoring (updates every 10 sec) can be viewed on *main* Games page for all other games, by following these steps:
 1. Click **Add team** on **Settings** page
 2. Type in **Team name**, choose **Team color**, then click on **Add team**
 3. Repeat, for up to 4 teams

3. Equipment Details

Now that you are familiar with your website, it's time to take a look at your equipment. Depending on what you have purchased, let's start with the guns:



Sunband: Both Eclipse 400X and S-7X have connected cord and Sunband, with these features:

- Indoor and outdoor play
- Detects hits up to 650' (200m) and in full sunlight
- 2 IR sensors located on front + 1 on back (4th sensor on gun to prevent cheating)
- 3 sensors provide full 360° coverage, to prevent cheating
- 3 sensors will dimly glow their team color, then flash their team color brightly, when hit
- 3 sensors remain lit with team color, after being tagged out
- Fits any size head with adjustable velcro band
- Cord adjustable in length for different size players
- Included Sunband Cover protects main Sunband, designates teams, and is quickly wiped clean with Lysol or baby wipes

Lens: Both Eclipse 400X and S-7X house a 1" lens at end of their barrel. Combination of highly sensitive Sunband + lens produces long ranges. End of barrel is wrapped in fluorescent orange tape, as required by US shipping laws. More importantly, orange tape makes it obvious to public that is NOT a real gun!

Muzzle Flash: When firing, muzzle flash (LED) on both styles of guns flash bright amber color, so players are easily visible at distance

Display: Shows variety of helpful information throughout game:

- Before game starts (pregame), counts down until game starts
- During game, shows remaining hits
- When firing, switches to show remaining ammunition (bullets) in 1 clip (magazine)
- When reloading with red button (Eclipse 400X) or reload lever (S-7X), shows number of remaining clips
- Automatically adjusts to correct brightness level (ambient light sensor attached to display)

Reload: Press and release red button (Eclipse 400X) or pull reload slide handle back fully and release (S-7X) to load next clip of shots. Number on display shows remaining clips. Also used in some games to access an ability

Radio Frequency (RF): Installed in all X-series equipment - communicates with Chimera network. Data range of ~300' outdoors/~100' indoors in uninterrupted conditions. Guns installed with "repeaters" to quickly and efficiently repeat data to another gun for seamless transmission, because of occasional interruption of RF signal

Power Jack: Both styles of guns arrive with power key plugged into its power jack, which is both power switch and charging jack:

- Power switch - remove power key to turn on gun/plug back in to turn off
- Charging jack - plug in battery charger tip to turn off gun and start charging

Carrying Strap Hook: Built-in hook at butt of each style of gun, to attach optional carrying strap (included with S-7X) to assist with carrying gun and minimizing damage

Top Rail: Picatinny rail on S-7X and built-in rail on Eclipse 400X are great for sighting basic play or adding a red dot/ magnified scope for greater accuracy

Tactical Rails: S-7X (not Eclipse 400X) features 3 tactical mounting rails on bottom and sides, to attach optional accessories such as flashlight or front grip

Battery: Both styles of guns arrive with a professional-grade lithium ion rechargeable battery:

- Lasts 20+ hours of typical playtime, when new (if fired nonstop or sparingly, playtime lessens or increases by several hours)
- Fully recharged within 2-3 hours
- Typically lasts 2-3 years, before being easily replaced by customer
- Charger can be left plugged in constantly, without damage to battery

Battery Chargers: Both styles of guns arrive with a battery charger:

12 Port

- 1 main charger with 12 individually numbered cords which plug into power jack of each gun
- 1 charger per order of 8-12 guns
- Installs in Mobile Caddy

Single Port

- Allows for individual charging of guns
- 1 per gun up to 7 guns (if preferred, all single ports for larger quantities)

Lights on Battery Chargers for Guns

Solid Yellow = Charging
No Light = Fully Charged
Blinking = Error
Red = Powered On (12 port only)

Battery Charger Safety

- Equipment does not operate when charging
- Only use battery charger included with Steradian equipment. Use of any other charger could cause batteries to explode, causing serious injury
- Do not expose charger to moisture and water
- To reduce risk of damage to the charger and cord, pull charger by plug (not cord), when disconnecting charger
- If gun is plugged into charger, but charger is not plugged into wall power, gun will slowly discharge over a few days
- Plug chargers into wall power whenever possible, to keep guns charged and ready to play

Chimera Base

Accessory to use with laser tag guns (recommend 1 per team)

- On/off button on bottom of base
- Assign base # into "Base" slot on lasertagscores.com website, just like guns
- Contains radio frequency (RF) and infra red (IR) to detect nearby players, receive hits, and transmit scoring data through Chimera Hub to your LaserTagScores.com website
- Hit sensors and transmitters on front of base only, to create tactical strategies on game field
- Impact resistant, 7.9 lbs., 12"W x 9"D x 10"H
- Internal rechargeable battery lasts for 12-25 hours of continuous play and recharges in 1.5 hours using power jack on bottom of base (see battery charger safety on pg. 7)
- Option of powering with included power adapter in wall socket



Charging Light on Chimera Base

Solid Yellow = Charging
(can take 10-15 seconds to detect)
No Light = Fully Charged
Blinking = Error

Chimera Hub

Interface between X-Series equipment and computer

- Plugs into computer's USB port or powered USB port - a non-powered USB hub or keyboard does not provide enough power for Chimera Hub
- For desktop computers, use USB port on *back* of computer - USB ports on front do not supply enough power
- Place antenna vertically and near the computer for greatest range



Lights on Chimera Hub

Blinking Green = Powered On
Blinking Red - Rx = Receiving
Blinking Yellow - Tx = Transmitting

Chimera Target

Accessory to use with laser tag equipment (recommend minimum 4 per game)

- Small (2.5"H x 3.5"W) and durable enclosure
- Available in both regular and waterproof style
- Press red button on side of target to power on/off
- Assign target # into "Target" slot on LaserTagScores.com website, just like guns
- Contains radio frequency (RF) and infra red (IR) to detect nearby players, receive hits, and transmit scoring data
- Contains 3 multicolored LEDs, which light in patterns and colors, representing different functions when shot
- Mounts with included magnetic system or strap
- Internal rechargeable battery lasts for 5-10 hours of continuous play and recharges in 3 hours with included single port or 5 port battery charger (see battery charger safety on pg. 7)



Charging Lights on Chimera Targets

Solid Yellow = Charging
(can take 10-15 seconds to detect)
No Light = Fully Charged
Blinking = Error

Mobile Caddy

Easily transports and stores laser tag equipment

- Holds 12 Eclipse 400Xs or 12 S-7Xs (without shoulder stocks)
- Holds 12 port battery charging system with single power cord for wall outlet (12 port can be purchased separately or included with gun purchase)
- Cables/cords routed through center of caddy for protection and easy cable management
- Includes laptop bag mounted in lid (not shown)



Scorpion Grenade

Classic Series accessory, but also compatible with X-Series

- Performs separately from website (**does not score**)
- Gently pull and release chain to power on - will beep progressively faster
- After 5 seconds will “explode”, firing rapidly for 3 seconds, at any equipment on any team, within 30’ (10m)
- Contains 6, wide-angle IR LEDs
- After firing, will go into rest mode, beeping and flashing every 4 seconds for location
- Gently pull and release chain to power off - repeat steps for next throw
- Included CR2 3v battery can be replaced as needed, by removing the tape, cap, and foam spacer

Additional Accessories

- **Shoulder Stock:** attaches to butt of S-7X
- **Front Grip:** attaches to bottom rail of S-7X
- **Red/Green Dot Sight:** attaches to top rail of S-7X or Eclipse 400x
- **Magnifying Scope:** attaches to top rail of S-7X or Eclipse 400X
- **Flashlight:** attaches to side rail of S-7X or top rail of Eclipse 400X
- **Carrying Strap:** attaches to butt of S-7X or Eclipse 400X

4. X-Series Scenarios

With your website and equipment ready, the next step is to start a game by pressing the **New Game** button on the **Games** page. There are several scenarios to choose from, so let's first start with common words and descriptions used in each of the scenarios, for a better understanding of the games:

Hits: How many times a gun can be hit before player is eliminated

Shield Hits: Type of hit that can regenerate

Clip Size: How much ammunition (bullets) a player has before they have to reload

Reload Time: How many seconds player has to wait after reloading, before shooting again

Fire Rate: How fast gun will shoot. Number represents how many shots you can shoot in 1 minute

Damage: How many hits another player will loose when you shoot them

Stun Time: How long another player will be stunned when you shoot them. Stunned players cannot shoot or reload

Hit Rate: How fast a player can be hit. Number represents how many times you can be hit in 1 minute. When set to a low number, such as 60/minute, a player can only be hit once every second

Standard Gun Setup: Describes how gun is set up to operate - many games use these settings, or describe different settings. Standard gun settings: 20 hits, 30 clip size, 3 second reload time, 200 fire rate, 1 damage, 0 stun time, 600 hit rate

Heal: In some games, players can heal, which lets players get back some of hits they have lost

Revive: In some games, Chimera Bases can revive players. For players who have lost all their hits and are given all their hits back and can continue to play

Tagged Out or Eliminated: When players lose all their hits, they are tagged out, gun shuts down, and they are out of game. Some games allow players to revive

Individual Points: Points that player will get when they complete an objective. (Ex: red team player shoots opponent, earning them 100 points)

Team Points: These are points that a team will receive when a player on that team completes an objective. (Ex: a red team player captures the flag, so red team receives 5000 points).

Indoor: Check to play indoors. Leave unchecked to play outdoors

Basic Scenarios

Great for newer player, are easy to learn, fun to play, and allow player to start right away

Free for All

- No teams - everyone can shoot everyone
- Last player alive at end of game wins - if time runs out, player with most individual points wins
- Chimera Targets can be added for extra points
- Chimera Bases can be added for extra points and revival

Individual Points	Objective
50 Points	Shoot a target during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)

Immortal Arena

- No teams - everyone can shoot everyone
- Players cannot be tagged out during game
- Instead of gun losing hits, gun is temporarily disabled for 3 seconds every time a hit is taken
- Do your best to hit as many players as possible, because the player with the most points wins!
- Chimera Targets and Chimera Bases can be added for extra points
- Recommend large area to play

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game

Immortal Teams (teams)

- Team version of Immortal Arena
- Players cannot be tagged out during game
- Instead of gun losing hits, gun is temporarily disabled for 3 seconds every time a hit is taken
- Team with most Team Points at end of game is winner
- Chimera Targets and Chimera Bases can be added for extra points
- Recommend large area to play

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
Team Points	Objective
10 Points	Teammate shoots an opponent
50 Points	A teammate shoots a target during game

Team Elimination (teams)

- A classic game where 2 teams face off to eliminate opposite team
- Team who eliminates all opponents is winner - if time runs out before one team is eliminated, team with most Team Points at end of game wins
- Chimera Targets can be added as an additional objective and extra points
- Chimera Bases can be added for extra points and revival - allows teams to survive until time runs out

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	A teammate shoots a target during game

Advanced Scenarios

Once players understand the basics, then try scenarios that are a bit more detailed, and even more fun to play with new challenges

Capture The Flag (teams)

- New way to play old classic, by shooting opponents' Chimera Base (required) from within 10', to take flag
- Flags recharge on base using chosen setting: 30/60/90/120 seconds
- Base revives players while it has flag. Bases will not revive players after flag has been taken. When flag recharges on base, players will be able to revive again

- Revive time can be set to short (10 seconds), medium (revive time same as Flag recharge time), and long (revive time twice Flag recharge time)
- If player has flag, cannot shoot other players
- If player dies while they have flag, flag disappears
- Team who has most Team Points at end of game wins
- Chimera Targets can be added for extra points

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
100 Points	Steal an enemy flag
200 Points	Take out a player (last hit)
500 Points	Return enemy flag to your base
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	A teammate shoots a target during game
5000 Points	A teammate returns the enemy flag to your base

Civil War (teams)

- Advanced version of Team Elimination, putting players in shoes of Confederate/Union soldier
- Players use simulated muskets that fire one bullet before a long reload time of 10 seconds
- Players only have 3 hits before being tagged out
- Team who eliminates all opponents is winner - if time runs out before one team is eliminated, team with most Team Points wins
- Chimera Targets can be added for extra points
- Chimera Bases can be added for extra points and revival

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	A teammate shoots a target during game

Control Point (teams)

- Fun team game where players battle over control of Chimera Bases and Chimera Targets
- Minimum 2 Chimera Bases required + 2 more Chimera Bases or Targets (Control Points)
- Chimera Bases either start on a **team**:
 - Players revive their gun at any Chimera Base which their team owns, in set amount of time - 15/30/60/90 sec
 - Control Points that start on a team cannot be captured by opponent on other team
 - Control Points that start on a team are worth more points when shot by opponent

or are **neutral**:

- Players on *either team* capture neutral bases by shooting them until lights change to their team's color
- Neutral control points give points every minute, so capture as many as you can!
- Can be set to be captured as Slow, Medium, or Fast
- Target can be added as neutral control points
- Unlike a team base, does *not* revive players
- Team who has more Team Points at end of game wins

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a neutral base during game
100 Points	Shoot a player during game
200 Points	Capture a control point
200 Points	Take out a player (last hit)
500 Points	Shoot a base that started on opponent's team
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	Shoot a base that starts on an enemy team
50 Points	Teammate shoots a target during game
1000 Points	Every minute your team has full control of a neutral control point

Custom Settings (teams)

- Similar to Immortal Teams, but with additional setting that can be adjusted
- Several settings are the same as in other games, but others are new:
 - Starting lives** = how many hits
 - Magazine capacity** = how many shots before reload
 - Fire rate** = how fast "bullets" come with trigger pull
 - Maximum hit rate** = how quickly you can take hits
 - Lockout time** = stun time or number of seconds after you've been hit before able to shoot again
 - Ignore friendly fire checked** = teammates CAN'T shoot you
 - Ignore friendly fire unchecked** = teammates CAN shoot you
 - Base recharge time** = how quickly Chimera Base "charges up" (not battery charger) before another trigger revive
 - Target recharge time** = how quickly Chimera Target is available to be hit again, like stun time

Powerup Quest (teams)

- Play game by shooting Chimera Targets (required) and collecting powerups:
 - Glows **blue** - Machine Gun (30 shots that shoot quickly)
 - Glows **purple** - Rocket Launcher (3 slowly reloading shots that do 5 damage each)
 - Glows **yellow** - Armor (adds 5 health to gun)
 - Glows **green** - Health (heals gun for 5 hits)
- After a Powerup is collected, target glows red while it recharges
- When out of Machine Gun or Rocket Launcher ammo, gun changes back to starting ammo

- Team who eliminates all opponents first, wins - if time runs out before one team is eliminated, team with most Team Points wins
- Chimera Bases can be added for extra points and to revive

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	A teammate shoots a target during game

Race to Level Seven (teams)

- Players choose a class or specialty at beginning of game, depending on their interests and abilities:
 - Sniper** - Slow-fire gun that does more damage as it levels-up, but then shoots slower. For players who like to hide and secretly shoot
 - Tank** - Normal gun, but has extra lives. Good for players who like to be on the front line
 - Striker** - Rapid-fire machine gun that shoots faster as it levels up. Good for players who like to run
 - Medic** - Normal gun, but can shoot a *Heal Shot* at teammates. Fun for players who like to hide until needed
- Shoot Chimera Targets (required) and eliminate players to *level-up* gun from 1 to 7
- For Medic, press and hold reload until power-up sound is heard - release reload and it will fire heal shot
- Team who eliminates all opponents first, wins - if time runs out before one team is eliminated, team with most Team Points wins
- Chimera Bases can be added for extra points and revival

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	Teammate shoots a target during game

Race to Level Seven:

Ability of Sniper by Level	Time Before Next Shot	Shots per Clip
Level 1	0.3 seconds	30 shots
Level 2	0.25 seconds	35 shots
Level 3	0.2 seconds	40 shots
Level 4	0.15 seconds	45 shots
Level 5	0.1 seconds	50 shots
Level 6	0.1 seconds	55 shots
Level 7	0.1 seconds	60 shots

Ability of Tank by Level	Armor (extra lives)
Level 1	10 armor
Level 2	15 armor
Level 3	20 armor
Level 4	25 armor
Level 5	30 armor
Level 6	35 armor
Level 7	40 armor

Ability of Striker by Level	Shot Power	Time Before Next Shot	Shots per Clip
Level 1	1 damage	0.3 seconds	20 shots
Level 2	2 damage	0.35 seconds	15 shots
Level 3	3 damage	0.4 seconds	10 shots
Level 4	4 damage	0.5 seconds	5 shots
Level 5	5 damage	0.6 seconds	4 shots
Level 6	10 damage	0.75 seconds	3 shots
Level 7	15 damage	1.0 second	2 shots

Ability of Medic by Level	Heal Points per Shot
Level 1	1 point
Level 2	2 points
Level 3	3 points
Level 4	4 points
Level 5	5 points
Level 6	6 points
Level 7	7 points

Regenerating Shields
(teams)

- Advanced version of Elimination, where player “shield” that protects permanent damage

Team has from

- Shield hits can regenerate if player does not take damage for 30 seconds
- After losing a health hit, however, it is gone permanently
- Each player has 10 total hits - the first 6 are shield hits and last 4 are health hits

Example 1:

“I start at 10 hits. I take 3 damage while moving which puts me at 7 hits. If I do not take damage for 30 seconds, my shield will regenerate hits back to 10”

Example 2:

“I start at 10 hits. I take 8 damage while moving which puts me at 2 hits. If I do not take damage for 30 seconds, my shield will regenerate my hits back to 8”

- Team who eliminates all opponents first, wins - if time runs out before one team is eliminated, team with most Team Points wins
- Targets can be added for extra points
- Chimera Bases can be added for extra points and revival

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	Teammate shoots a target during game

Super Mercenary (teams)

- Advanced version of Team Elimination, where 1 player with a powerful gun (3x) is available for both teams
- Mercenary doesn’t start on a team, and is unable to shoot until a team “hires” him

- Mercenary is “hired” by whichever team is able to shoot him first - use him to your advantage, for other team can “hire” him too!
- If Mercenary is tagged out, will be disabled for 10 seconds, then goes to team of player who killed him
- Team who eliminates all opponents first, wins - if time runs out before one team is eliminated, team with most Team Points wins
- Chimera Targets can be added for extra points
- Chimera Bases can be added for extra points and revival

Individual Points	Objective
50 Points	Shoot a target during game
50 Points	Shoot a base during game
50 Points	Convert a mercenary during game
100 Points	Shoot a player during game
200 Points	Take out a player (last hit)
Team Points	Objective
10 Points	Teammate shoots an opponent
20 Points	Teammate takes out an opponent (last hit)
50 Points	Teammate shoots a target during game
500 Points	Teammate converts a mercenary during game

Zombie (teams)

- A fun game for any group of players - 1 team of humans and 1 team of zombies
- Zombies are stronger (20 hits) than humans (10 hits) and are able to turn humans into zombies
- When a human is tagged out, their gun shuts down for 10 seconds, then restarts as a zombie
- When a zombie is tagged out, it is eliminated
- Zombie guns will continuously say “BRAINSSS” so humans can identify them
- Recommend 3 humans for every zombie
- Zombies win if all humans are changed into zombies
- Humans win if at least one of them remains at end of game, or if all zombies are eliminated
- Chimera Targets can be added for extra points
- Chimera Bases can be added for extra points and healing

Individual Points	Objective
50 Points	Shoot a target during the game
50 Points	Shoot a base during the game
100 Points	Shoot a player during the game
200 Points	Take out a player (last hit)

5. Tips for Running a Laser Tag Game

Even though X-Series equipment is simple to start and operate, it’s very important to look at every aspect of running a laser tag game:

To ensure game runs smoothly, check following items *before* players arrive:

- Game referee is present at all times, and will maintain order in game - a chaotic game causes danger to players and equipment!
- Guns are fully charged
- **Indoor** is checked on Games page (or use lens reducer), if playing indoors
- Each Sunband has Sunband Cover
- Red dot sights are turned on - if no power, replace coin cell battery
- Equipment tested on LaserTagScores.com website, and ready to start game
- Business cards are ready with your Lasertagscores.com address written on them, to hand out to players for later viewing of their games and to share scores

When players arrive:

- Divide players into teams (unless Free for All)
- Remove and keep power keys, before passing out guns to players
- Ensure all players are wearing Sunbands on head only, not around neck or waist
- Explain rules:
 1. Safety (most important)
 2. No climbing trees (injury hazard)
 3. Cannot be closer than 5' to each other (injury hazard)
 4. Respect other player and equipment
 5. Wear Sunband on head - never around neck (Injury hazard)
 6. If anyone is hurt, stop and help them - call for Game Referee, if needed
- Describe how to play game
- Inform players of any accessories added to game and how to use them
- Describe/show boundaries of playing field and importance of staying within boundaries
- Game will come to end when time ends or players are "dead" (sensors on Sunband stay lit and gun is inoperable)
- Dead players must return to home base with hands in air (avoids confusion as to who is still alive)
- Ask players to politely hand back equipment to Game Referee at end of game

6. Maintenance and Troubleshooting

Steradian laser tag equipment is manufactured to be durable and able to take heavy use. It will operate for many years with low repair and maintenance costs, following basic guidelines:

- Very important Sunband is worn on **head** only - any other location may cause internal wire damage

- Prevent internal wire damage by gently pooling Sunband and cord with gun when storing
- Do not wrap cord around gun, hang gun by Sunband, or drag gun by Sunband - may cause internal wire damage
- Moisture condensation from rain, snow, or high humidity, can occur inside guns. Place the guns in cool vented area to dry, or add fan if excess moisture. With extreme cases, call Steradian for further instruction

If your gun is experiencing configuration issues, perform a Factory Reset to return to original settings:

- Eclipse 400X Factory Reset**
1. Insert power key
 2. Push red reload button and pull trigger - hold
 3. Remove power key
 4. Release reload and trigger
 5. Display will read 6, if performed correctly

- S-7X Factory Reset**
1. Insert power key
 2. Push buttons on both sides of display - hold
 3. Remove power key
 4. Release buttons
 5. Display will read 6, if performed correctly

If your gun shows an **error code** on the display, follow the diagnostic information — —>

Problems still occurring?

Need parts?

Please email sales@steradiantech.com or call (765) 420-9201 for further instructions

7. The Safety of Infra-Red

Despite the name “lasertag”, Steradian Technologies does not manufacture any product

Display Error Code	Problem	Solution
E1	Disconnected or damaged Sunband Cable	<ul style="list-style-type: none"> • Verify cable is attached to circuit board inside Sunband • Verify cable is attached to circuit board inside gun • Move to different lighting location to determine if problem is light source • Switch cable, then Sunband with working one to narrow down location of failure
E2	Gun sensor malfunction	<ul style="list-style-type: none"> • Move to different lighting location to determine if problem is light source • Inspect 3 sensors for damage • Replace sensor(s)
E3	Game code CRC does not match	<ul style="list-style-type: none"> • Perform a factory reset
E4	Game code is invalid	<ul style="list-style-type: none"> • Perform a factory reset or load another game
E5	Dataflash error	<ul style="list-style-type: none"> • Contact Steradian for instruction
r9	r9 stays on display <i>after</i> start-up r = release 9 = version	<ul style="list-style-type: none"> • Verify trigger or reload button/lever is not being depressed/pulled when powering on gun • Verify reload button/lever is not damaged • Contact Steradian for instruction
--	Not an error code Gun ready to be loaded into game	<ul style="list-style-type: none"> • Perform factory reset • Load into game • Standard for some games

which contains a real LASER (Light Amplification by Stimulated Emission of Radiation). This is because a laser emits a high-intensity, narrow-spectral-width, highly directional beam of coherent light. A high-power laser is capable of causing damage if used incorrectly, which is why Steradian Technologies instead uses IR LEDs.

An **IR LED** (Infra-red Light Emitting Diode) emits a low-intensity, wide-spectral-width, low-directionality beam of non-coherent light. An IR LED is what is used in a typical television remote. Steradian Technologies uses a glass **lens** to focus the Infra-red beam into a useable pattern. Because LEDs are not a point-source, and due to the nature of optical lensing, the lens does not focus the beam to a level capable of causing any harm.

Because Steradian Lasertag only uses LEDs, the single TSAL 6100 LED does not exceed Class 1 (eye-safe) limits as described by the manufacturer, Vishay Telefunken:

<http://www.vishay.com/docs/81934/eyesafe.pdf>

<http://www.vishay.com/docs/81935/eyesafe.pdf>

From the above documents: "...none of the currently available (July 2008) Vishay IR LEDs violate the class 1 limit. In case of IEC 62471 and in the European Directive 2006/25/EC all Vishay IR LEDs are inside the exempt conditions. Only with arrays, care must be taken not to violate the cornea/lens limits"

8. Communication Regulation Information

FCC compliance Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/ TV technician for help

Contains FCC ID: OUR-XBEE/OUR-XBEEPRO

European Community

Complies with European Directives:

Safety: IEC 60950:2005/A1:2009 / EN 60950-1:2006 / A11:2009 /A1:2010
following the provision of the Low-voltage Directive 2006/95/EC

EMC: EN 61000-6-3:2007

EN 61000-6-1:2007

following the provision of the EMC directive 2004/108/EC

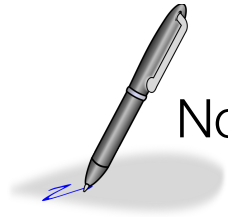
9. Steradian Technologies, LLC Warranty Policy

Steradian Technologies LLC products carry a limited 2 year parts and labor warranty against defects in materials or workmanship. We will repair or replace (at our discretion) the defective unit without charge for the parts or labor if the unit is returned to Steradian Technologies LLC within the warranty period. This warranty does not cover damages caused by improper care, handling or use. Shipping costs are not covered by this warranty.

This limited warranty covers all defects encountered in normal use of the Product and does not apply in the following cases:

- Loss of or damage to the Product due to abuse, neglect, mishandling, improper handling by you, alteration, accident, electrical current fluctuations, improper use, failure to follow operating or maintenance instructions in or environmental conditions prescribed in, Steradian Technologies LLC User Manual or other documentation, or services performed by someone other than a Steradian Technologies LLC repair facility. Without limiting the foregoing, dropping the Product, scratches, and abrasions will be presumed to have resulted from misuse, abuse or failure to operate the Product as set forth in the User Manual or other documentation for the Product.
- Use of parts or supplies (other than those sold by Steradian Technologies LLC) that cause damage to the Product or cause abnormally frequent service calls or service problems.
- If the Product has had its serial number or dating defaced, altered or removed.

Steradian Technologies LLC shall not be liable for loss of revenues or profits, inconvenience, expense for substitute equipment or service, storage charges, loss, or any other special, incidental or consequential damages caused by the use, misuse, or inability to use the product regardless of the legal theory on which the claim is based, and even if Steradian Technologies LLC has been advised of the possibility of such damages. Nor shall recovery of any kind against Steradian Technologies LLC be greater in amount than the purchase price of the product causing the alleged damage. Without limiting the foregoing, you assume all risk and liability for loss, damage or injury to you and your property and to others and their property arising out of the possession, use, misuse or inability to use the product sold by Steradian Technologies LLC not caused solely and directly by the negligence of Steradian Technologies LLC. This limited warranty shall not extend to anyone other than the original purchaser of the product, and states your exclusive remedy.



Notes: