Competition Opticon Setup

Guide 02 for coaches and helpers

Use this guide to get the Opticon ready for a competition. Follow pages 2 to 7 in order. You can use the same game steps on Windows or Ubuntu computers.

Opticon setup: the competition equipment in your room. **Chrome:** a program for opening websites, also called a browser. A **tab** is one open page inside Chrome. A **click** means press the left mouse button once. **Select** means click the item you want.

Have these ready

- The computer and TV switched on, with internet working.
- The room's usual camera, microphone and speakers connected.
- The small clear USB receiver and its four matched Amulets, with charged batteries.
- The mouse, keyboard and your community's saved schedule or competition link.

Leave Start match until everyone is ready. It starts the 40-minute clock immediately.

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Photo help: receiver and computer on page 11; video examples on page 12. **Guide 06 TV Picture and Screen Care** helps with cleaning, glare, screen edges and laptop position.

Find your schedule and competition link

1. Open **Google Chrome**. If its colored circle icon is on the desktop, double-click it, meaning two quick left clicks. Or open the computer's app list, type Google Chrome and click its name. If Chrome is missing, use page 8 for Windows or page 9 for Ubuntu.

2. Click your community's saved schedule tab or **bookmark**, meaning a saved website shortcut. Check your team name. Click **Schedule** if the page shows Team Details.

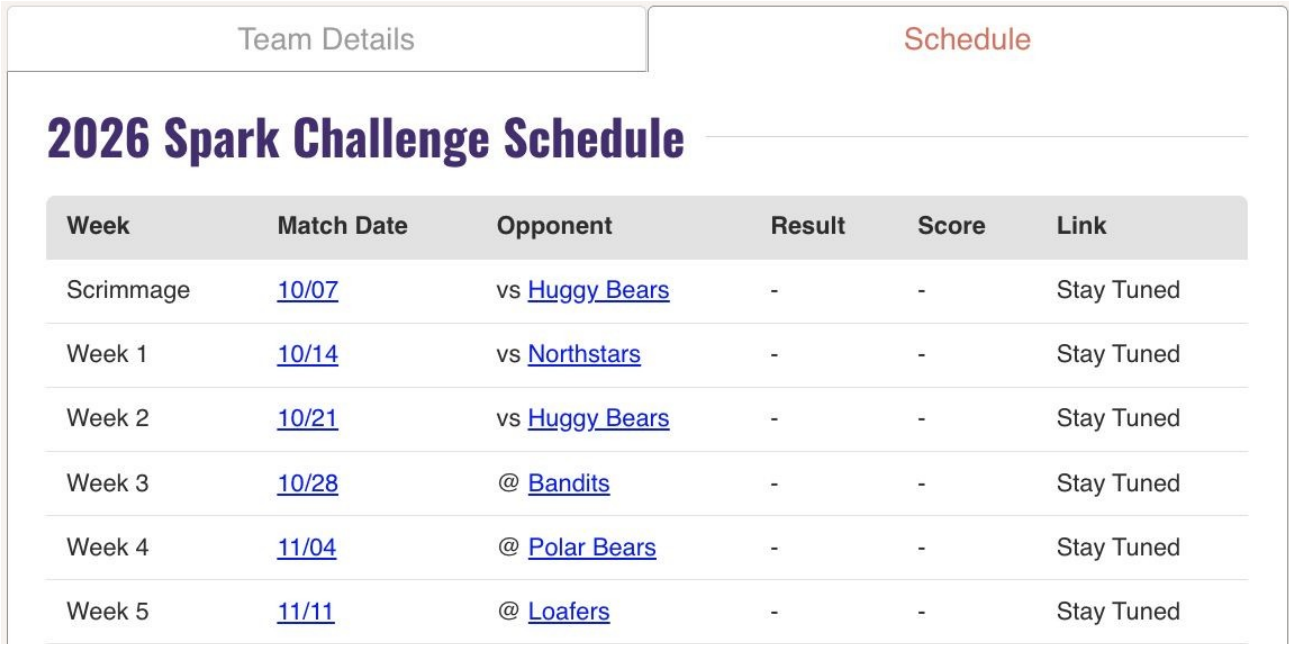


Example team page. Click Schedule if needed. Your own page should show your community or team name.

3. Find the correct **Match Date** and **Opponent** in the schedule.

4. Look across that same row to the **Link** column on the far right.

5. Click the competition link when it is available. Keep the match open in Chrome.



Example schedule. Stay Tuned means the match link was not ready when this picture was taken.

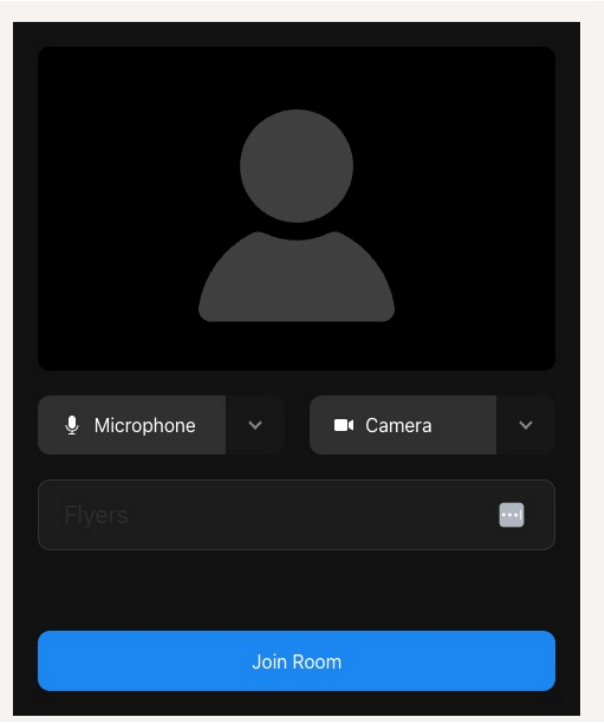
If it says Stay Tuned: click Chrome's round reload arrow near the top left. If the match link is still missing, ask the event organizer.

No saved schedule: ask the event contact for your community's website address. In Chrome, hold **Ctrl** and press **L**. This selects the address bar, the long box at the top. Type the address there and press **Enter**. Use your own team's page.

Check that it worked: The competition opens a room preview with a **Join Room** button.

Choose the room devices and join

The **room camera** shows your team to the other team. It is different from the little camera inside each Amulet, which looks at the TV.



Room preview. Use Microphone, Camera, the team name and Join Room. Flyers is an example name.

1. If a box asks whether this competition site may use the camera or microphone, click **Allow**.

2. Click the small arrow beside **Microphone**. Click the room microphone's name in the list. Do the same beside **Camera** for the room camera. Ask your room helper if you do not know the names.

3. If a microphone or camera symbol has a line through it, click that button to turn it on. You should see your team in the large picture area.

4. Check the team name below the camera buttons. If it is wrong and the box allows typing, click inside it, replace the name with your team's name, and check it.

5. Click **Join Room**.

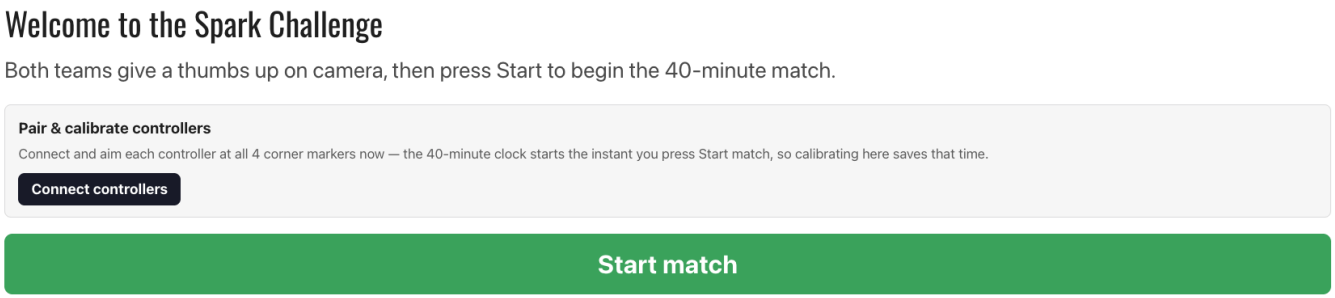
If you cannot see or hear the team: check that the camera, microphone and speakers are connected and turned on. Ask the room helper to check the device names and sound volume.

Check that it worked: You see **Welcome to the Spark Challenge**, **Connect controllers** and **Start match**.

Connect the USB receiver

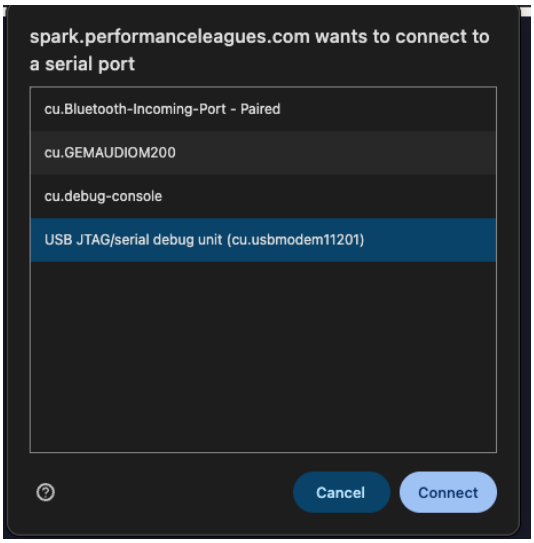
The **receiver** is the small clear device shown on page 11. Its flat metal end is the **USB plug**. Put that end into a matching rectangular socket on the game computer. If it does not fit easily, ask a helper. Turn on this kit's Amulets using Guide 01.

1. Click **Connect controllers** above the green Start match button.



The dark Connect controllers button opens the receiver list. Wait to use Start match.

2. A small box opens with a list. Click the receiver's row once so it is highlighted. Then click **Connect** at the bottom. The video calls the receiver **USB JTAG**; yours may have a different name.



Mac example with the receiver highlighted. Windows and Ubuntu may show a different name or number.

3. Wait for the white calibration screen. If the welcome page is shown with **Open calibration**, click that button.

If Connect is gray: click the receiver's row first. **If the receiver is missing or several entries look alike:** use Guide 04, **Controller troubleshooting**, under "The USB receiver will not connect."

Leave the receiver plugged into the **computer** during setup and play. Do not put it in the TV. You do not need Bluetooth pairing or a reset of the saved kit assignments.

Check each player’s moving spark

A **spark** is the small pointer moved by an Amulet. The four black-and-white squares on the TV are **markers**. The Amulet’s camera eye must see all four at once.



Look for four complete square markers. This example says OFFLINE because the website has not received recent messages from the Amulets.

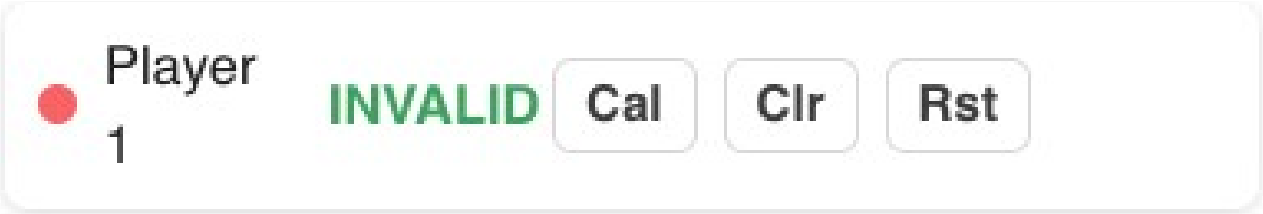
1. Check that the **TV screen is clean**. If it needs cleaning, follow **Guide 06 TV Picture and Screen Care** before play. Remove the Amulet’s lens cap. Keep its eye clean and uncovered.
2. **Reduce glare as much as possible.** Close curtains or blinds. Move lights that reflect on the TV, or switch those lights off. Keep the room safe to walk through. Check from each player’s seat.
3. Look at all four markers. Each square must be whole, including its outer edge. Nothing should cover them. For cut-off edges or a laptop screen showing extra markers, use Guide 06.
4. At startup, hold steady for about **5 to 10 seconds**. Then ask one player to move gently left, right, up and down.
5. Watch that player’s own spark follow the movement. Repeat for every controller in use.

Using a laptop on a stand: tilt its screen partly down so the Amulet’s eye sees only the TV markers. Keep the laptop stable. Do not fully close the lid if that makes the TV turn off or sleep. See Guide 06 for pictures and help.

A still dot or 4/4 count is not a movement test. INVALID means the game cannot use the aim right now. Point the eye toward the middle of the TV again and check for fresh movement. If it still will not move, use **Guide 04 Controller troubleshooting**.

Center the aim if needed

Use **Cal** when a spark already follows movement but aims too far to one side. Cal cannot fix a blocked lens or a spark that does not move.



Cal is the first small button after the status word. This example says INVALID, so restore responsive movement before clicking Cal.

1. Ask one player to move their Amulet gently. Find the matching moving spark and player number. Use that player's row of buttons. Do not guess the number from the order the Amulets were turned on.
2. Have the player aim comfortably at the **middle of the TV** from their actual playing position.
3. Click **Cal** in that player's row. Keep the controller still for about **two seconds**.
4. Ask that player to move gently left, right, up and down again. Check that their spark follows. Repeat for another player only if their aim needs centering.
5. Once every controller in use has passed the movement and aim checks, click **Done calibrating** at the top right.



Done calibrating returns to the welcome screen.

Aim at the middle for Cal. You do not need to point at each corner separately. If the strap height or controller angle changes, check the aim again.

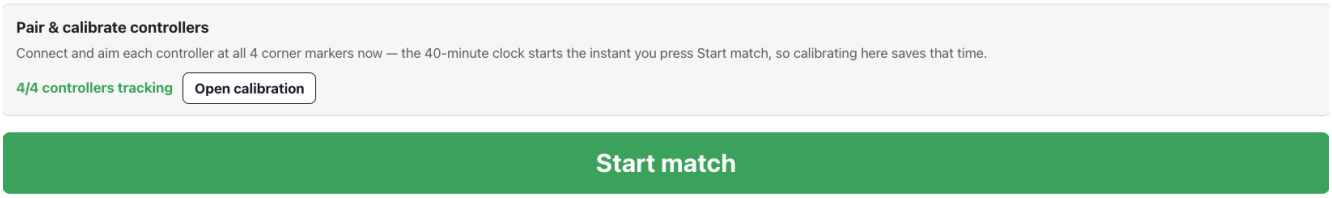
Done calibrating only closes this view. It does not perform calibration, test the controllers or start the match. Leave **Clr** and **Rst** for support.

If your kit behaves differently from these steps, ask the event contact to help. These steps follow the reviewed Camera V18 instructions.

Check both teams and start the match

You are back on the welcome screen. The coach or helper responsible for starting should finish these checks before pressing Start match.

For best performance: save any work first. Click the small **X on each unneeded tab** at the top of Chrome. Close other browser windows, other browsers and all unneeded apps with their close buttons. **Keep the game, required room call and accessibility tools open.** Making a window smaller or hiding it does not close it.



Open calibration lets you check movement again. Start match starts the clock. The displayed 4/4 count alone is not a readiness check.

[ ] Every controller in use moves the correct player's spark from the actual playing position.

[ ] The TV is clean, glare is reduced and all four complete markers are visible. A laptop screen does not show extra markers to the Amulet's eye.

[ ] Both teams can see the room video and hear each other.

[ ] Both teams are ready and give a thumbs-up on camera.

1. Click the large green **Start match** button once. The **40-minute clock starts immediately**.

2. Check that stars appear and each player can still move their own spark. Setup is complete.

Keep the setup steady during play

Leave the receiver plugged in. Keep all four markers visible. Leave the TV picture size and laptop position as tested. Use **Guide 06 TV Picture and Screen Care** if the picture changes.

For aiming at stars and teamwork, open Guide 03, **Super Nova Star Manual**. For a missing spark, connection error or failure after a quiz, open Guide 04, **Controller troubleshooting**.

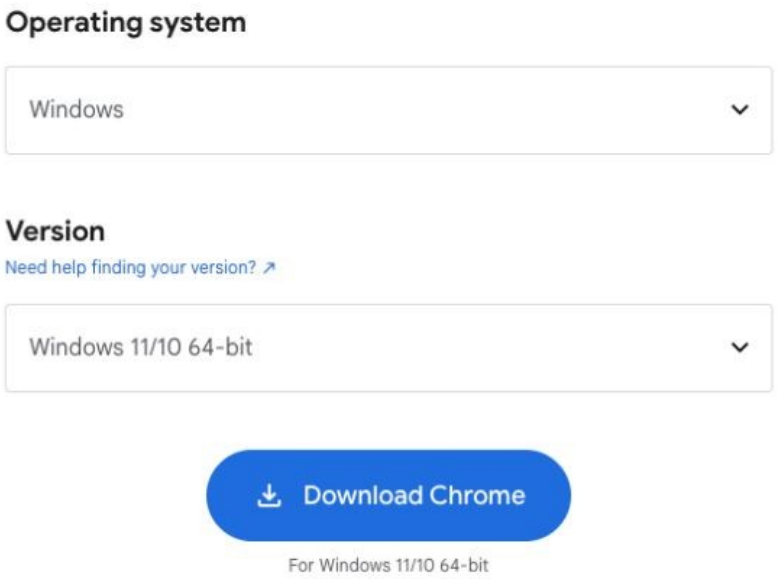
During a match: calibration does not pause the clock. Before reloading or unplugging equipment, record the score and time and coordinate with the match leader. Reloading may affect the current match.

Install Chrome on Windows if needed

Use this page only if Chrome is missing. If Chrome opens, return to page 2. A **browser** opens websites. Open the computer's existing browser, such as Microsoft Edge, then use the link below. Ask the room helper if you cannot find a browser.

Open the official Google Chrome download page

Choose a download for your computer



Google download example. Choose the Windows version that matches this computer.

1. Click the arrow in **Operating system** and choose **Windows**. Choose the version that matches the computer. If you are unsure, ask the room helper. Click **Download Chrome**.

2. Open the yellow folder button called **File Explorer**. Click **Downloads** in its side list. Find **ChromeSetup.exe** or the Chrome installation file. Double-click it with two quick left clicks.

3. If Windows asks whether to run the installer or allow the installation, choose **Run** or **Yes** when you are using the file downloaded from Google.

4. Wait until installation finishes. If Chrome does not open, click the Windows **Start** button, type **Google Chrome**, then click its name.

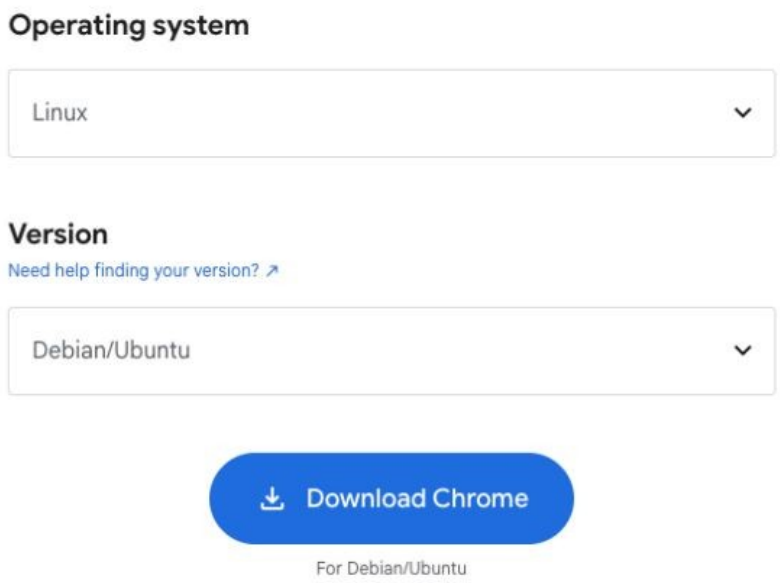
If you need an administrator password or do not know which version to use, ask your community's IT contact. You can use Chrome for the game even if another program remains the computer's usual browser.

Check that it worked: Chrome is open. Go to page 2 to open your schedule.

Install Chrome on Ubuntu if needed

Ubuntu runs some Opticon computers. Use this page only if Chrome is missing. Open the computer's existing browser, often Firefox, and use the link below. A browser is the program that opens websites. Ask the room helper if you cannot find it.

Choose the Google Chrome download for Ubuntu



For a usual Intel or AMD Ubuntu computer, choose Linux and Debian/Ubuntu. Ask IT before choosing an ARM version.

1. Click the **Operating system** arrow and choose **Linux**. In **Version**, choose **Debian/Ubuntu**. Click **Download Chrome**. The downloaded filename ends in **.deb**.
2. Open the folder button called **Files**. Click **Downloads** in its side list. Find the file ending in **.deb** and double-click it with two quick left clicks.
3. If **App Center** or **Software Install** opens, click **Install**. If it asks for a password you do not know, stop and ask the room helper.
4. When installation finishes, open the computer's app list, type **Google Chrome** and click its name. Ask the room helper about any message you do not understand.

If the file opens like a folder of files, right-click it and use **Open With** to choose the software installer. Installer names vary. If no installer is offered, or a password is needed, ask IT to finish installation.

Check that it worked: Chrome is open. Go to page 2 to open your schedule.

Match day checklist and help links

Use this short list once Chrome is installed. Detailed steps are on pages 2 to 7.

[ ] Turn on the computer and TV. Open Google Chrome.

[ ] Open your own community's schedule and the correct competition link.

[ ] Save work and close all unneeded tabs, browsers and apps. Keep the game, required room call and accessibility tools. See page 7.

[ ] Choose the room microphone and camera, check your team name and join the room.

[ ] Plug the matched USB receiver into the computer. Power the controllers.

[ ] Click Connect controllers, select the receiver and click Connect.

[ ] Check the TV is clean with little glare and four whole markers. Keep laptop markers out of the Amulet's view. See page 5 and Guide 06.

[ ] Check that each player's spark follows fresh movement from their playing seat.

[ ] Use Cal only if a moving spark needs centering. Click Done calibrating.

[ ] Check both teams are ready. Have the responsible helper click Start match once.

Choose the next guide

You want to	Use
Fit, clean or put away an Amulet	Guide 01 Amulet use and care
Learn stars and teamwork	Guide 03 Super Nova Star Manual
Fix a controller or connection	Guide 04 Controller troubleshooting
Use the separate practice page	Guide 05 Super Nova development page setup

Google Chrome installation help

Chrome help for connecting USB serial devices

Submit a Spark Performance League support ticket

TV help: Guide 06 **TV Picture and Screen Care** covers cleaning, glare, screen edges and laptop position.

Sources: supplied manual, project screenshots, Caleb Thomas's equipment photos and Spark Challenge videos reviewed September 25 2026. Video examples: pages 11 and 12.

Recognize the receiver and computer

The receiver is the small clear USB device in your kit. It carries the Amulets' messages into the game computer.

Look at both sides of the same receiver



Top: display side. Red arrow: metal USB plug. **Bottom:** back and model label. The model name does not identify the assigned kit or players.

Keep this receiver with its own Amulets. A dark receiver display alone does not mean it is broken. Use the connection and movement checks on pages 4 and 5.

Plug it into the computer that runs the game



Opticon Set Up video, about 00:12. Red arrow: receiver plugged into a GMKtec computer.

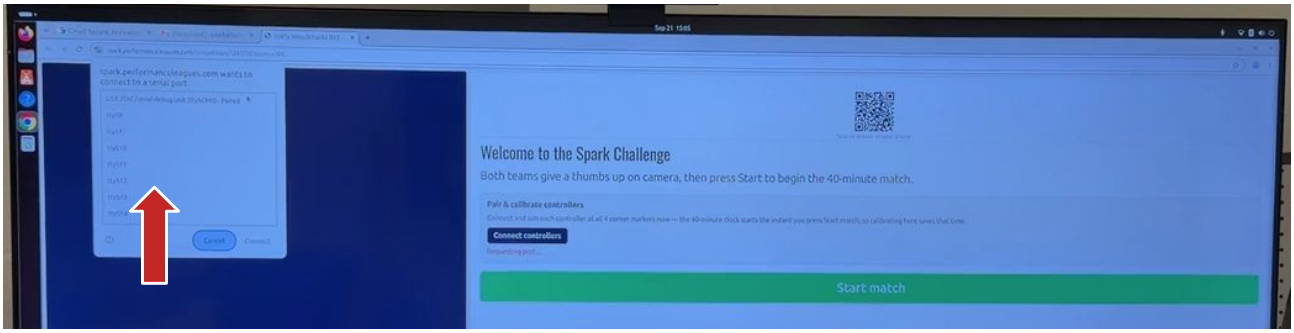
The video also shows Samsung and keyboard-shaped computers. Use the computer connected to your room's Opticon. Do not put the receiver into the TV. Leave it in place during setup and play.

Watch Opticon Set Up on the Spark Challenge page

Follow the Opticon video

Use these video examples with pages 4 and 5. Your room and device names may differ.

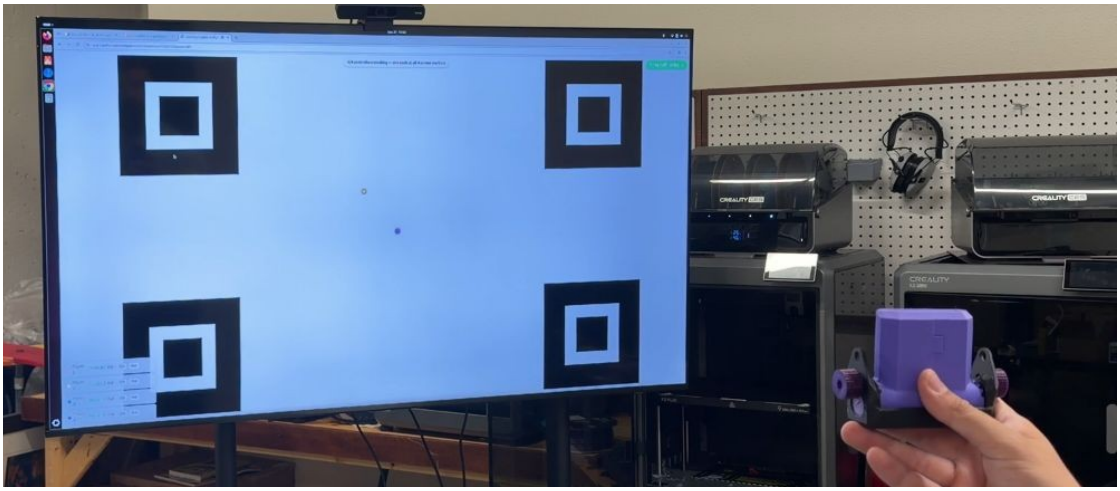
Choose the receiver in the device list



Opticon Set Up video, about 00:49. Red arrow: the receiver list. Your device list may look different.

Click **Connect controllers**. Select your receiver in the list, then click **Connect**. The video calls its receiver USB JTAG. If several names look alike, use Guide 04, page 5; do not guess.

Check one controller at a time



Opticon Set Up video, about 01:26. The helper holds one Amulet toward the four TV markers.

Move one Amulet gently and watch its own spark follow. A hand-held check can confirm movement, as shown here. Then repeat from the player's real seat with the Amulet fitted for play.

After every controller passes, click **Done calibrating**. Complete page 7 before **Start match**. The video's movement check is different from using **Cal** to center aim; see page 6 for that adjustment.

Watch the original Opticon Set Up video

Repeat the movement check with your own kit before play.