

# Icebreaker Scout — Setup Guide

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This guide walks you through setting up a new Scout device on your WiFi network. The whole process takes about 5 minutes.

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## What You Need

- An Icebreaker Scout device (M5Stack Atom S3R)
  - A USB-C cable and power source (wall adapter, laptop, or battery pack)
  - A phone or laptop with WiFi
  - Your WiFi network name and password
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## Step 1: Plug In the Device

Connect the Scout to power using a USB-C cable. The device will boot up and you'll see the Icebreaker opening screen:



After a few seconds, if this is a brand-new device (or it can't find a known WiFi network), the screen will change to:



This means the device needs WiFi setup. It will enter setup mode automatically.

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## Step 2: Enter Setup Mode

If the device is not already in setup mode:

**Press and hold the button for 3 seconds** until the screen changes.

The device will show a PIN screen with a 4-digit code. The device also creates a WiFi network named **Icebreaker-XXXXX**, where the 5-character code is unique to your device. You won't need to type this name — the QR code handles it for you.

**Quick press the button** to switch to a QR code view. Quick press again to switch back to the PIN screen.

- **QR code:** Recommended for most users. This is the easiest and most secure way to set up your device.
  - **PIN code:** Only use this if your administrator has specifically instructed you to. It is used with a separate Bluetooth setup tool.
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## Step 3: Scan the First QR Code to Join the Scout's WiFi

The Scout creates its own temporary WiFi network so you can configure it. The QR code packages the network name and password together so you don't have to type anything.

1. **Turn off mobile data** on your phone first (Settings > Cellular/Mobile Data). This prevents your phone from switching away from the Scout's network during setup. You can turn it back on when you're done.
2. Quick press the button to show the QR code on the device screen
3. Open your phone's camera and point it at the QR code
4. Your phone will prompt you to join the **Icebreaker-XXXXX** WiFi network — tap to connect
5. If your phone warns "This network has no internet access" — tap **Stay Connected** or **Use Without Internet**. The Scout's network is local-only during setup.

Once your phone joins the Scout's WiFi, the device screen will automatically change to show a **second QR code**.

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## Step 4: Scan the Second QR Code to Open the Setup Page

This second QR code contains the secure link to the setup page (including an access password). You cannot simply type an IP address into your browser — the QR code is required for security.

1. Point your phone's camera at the new QR code on the device screen
2. Tap the link that appears to open the setup page in your browser

The WiFi configuration page will load.

### Trouble Connecting?

If your phone keeps switching back to mobile data before you can scan the second QR code:

- **iPhone:** Go to Settings > WiFi > tap the (i) next to your regular network > toggle off **Auto-Join** temporarily. Then reconnect to the Scout network.
  - **Android:** Go to Settings > WiFi > tap the gear icon on the Scout network > check "Connect even if no internet" (wording varies by manufacturer).
  - **Either phone:** As a last resort, temporarily turn off mobile data (Settings > Cellular/Mobile Data) while you complete setup. Turn it back on after you're done.
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## Step 5: Configure WiFi

Once the setup page loads, you'll see a form with these sections:

## Primary Network (Required)

Enter the WiFi network name (SSID) and password for the network where the Scout will live — usually your home or office WiFi.

- **Network Name:** Your WiFi name (case-sensitive)
- **Password:** Your WiFi password
- **Automatic connection:** Leave checked (recommended)

## Mobile Hotspot (Strongly Recommended)

Tap the checkbox to expand this section. Adding your phone's hotspot lets the Scout receive alerts while you're on the go — away from your home or office WiFi. It also serves as a backup if your main WiFi goes down, which matters most during emergencies.

- **Hotspot Name:** Usually your phone's name (e.g., "iPhone", "Galaxy S24", "Pixel 8")
- **Hotspot Password:** Your phone's hotspot password (find this in your phone's Settings > Personal Hotspot or Mobile Hotspot)

**Test it before you go mobile:** Turn on your phone's hotspot and power on the Scout away from your primary WiFi. Your phone should show a device connected to the hotspot, and you should see the Scout go through its normal screen flow (Checking → No Alert or Alert). If that works, you're good to go.

## Work Network, Alternate Networks (Optional)

You can add up to 5 networks total. The Scout will try them in priority order:

1. Primary
2. Mobile hotspot
3. Work
4. Alternate 1
5. Alternate 2

## Auto-Check Settings

- **Enable automatic status checks:** Leave on. This is how the Scout periodically wakes up to check for alerts.
- **Check interval:** How often the Scout checks. 5 minutes is a good default. Use 2 minutes for higher urgency; 15 minutes to save battery.
- **Quiet mode:** When on, the Scout only makes sound for actual emergency alerts — no startup beeps or status tones.

## Language

Tap **En Español** at the top of the page to switch the entire setup interface to Spanish. This preference is saved to the device.

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## Step 6: Save and Connect

Tap **Connect** at the bottom. The Scout will:

1. Save your WiFi credentials
2. Reboot
3. Connect to your primary network
4. Check in with the Icebreaker server

If the connection succeeds, the Scout will skip the Icebreaker logo on future wake-ups and go straight to the **Checking** screen, followed by either **No Alert** or **Alert**. You're done.

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## Step 7: Reconnect Your Phone

After saving, the Scout's temporary WiFi network disappears. Your phone should reconnect to your regular WiFi or mobile data automatically. If it doesn't, go to Settings > WiFi and select your normal network.

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## Understanding Your Scout's Screen

The Scout communicates through its screen and sound. Here's what each screen means:

### Startup



**Icebreaker logo** — The device is powering on. You'll see this briefly every time the Scout boots up. Accompanied by a startup tone (two short beeps).

### Needs Config



**WiFi setup needed** — The device has no saved WiFi credentials or can't find any known network. It will enter setup mode automatically. Accompanied by a voice prompt ("Needs configuration" or "Necesita configuración" in Spanish).

### Checking



**Checking for alerts** — The Scout is connected to WiFi and contacting the Icebreaker server to check for nearby alerts. Accompanied by a short tone (one beep). This is the screen you'll see most often during normal operation.

No Alert



**There is no alert in your area** — The Scout checked in and there are no active alerts nearby. Accompanied by a voice confirmation ("No alert" or "Sin alerta"). The device will go to sleep shortly and check again at the next scheduled interval.

Alert



**Active alert nearby** — An alert has been issued in your area. This is accompanied by an urgent audio alert (three rapid beeps followed by a voice announcement: "An alert has been issued in your area" or "Se ha emitido una alerta en su área" in Spanish). The screen stays on until the alert expires or is cleared.

Retry



**Connection problem** — The Scout connected to WiFi but had trouble reaching the server. It will try again shortly. Accompanied by a voice prompt ("Retrying" or "Reintentando"). If you see this repeatedly, check that your WiFi has internet access.

## No WiFi



**Can't connect to WiFi** — The Scout couldn't connect to any of its saved networks after multiple attempts. Check that your WiFi router is on and the password hasn't changed. Long-press the button (3 seconds) to re-enter setup mode and update your WiFi credentials.

## Downloading Update



**Firmware update in progress** — The Scout is downloading a new firmware version from the server. Do not unplug the device while this screen is shown. The download typically takes under a minute depending on your WiFi speed.

## Update Complete



**Update installed** — The Scout has finished installing a firmware update and will reboot automatically. After rebooting, the device will resume normal operation with the new firmware.

## Screen Off

The screen is off and the device appears inactive — this is normal. The Scout is in **deep sleep** to save power. It will wake up automatically at the next check interval (every 2–15 minutes depending on your settings) to check for alerts.

## GPS Module vs. Standard Model

There are two Scout variants. The setup and screen behavior is the same for both — the difference is how the device determines your location when checking for nearby alerts.

**SPK model (speaker module):**

- Has a small built-in speaker with voice prompts and audio alerts
- Also has a **3.5 mm audio jack** — you can connect it to the line-in on a loudspeaker or PA system for louder alerts in offices, warehouses, or large spaces
- Determines your location by scanning nearby WiFi networks and sending them to a geolocation service
- Works best in areas with many WiFi networks around (cities, suburbs, offices)
- Requires a WiFi-rich environment for accurate location

#### GPS model:

- Has a GPS receiver instead of a speaker — **no audio output**
- Uses GPS satellite signals to determine your location directly
- Works in areas with few or no WiFi networks (rural areas, open fields, parks)
- Needs a clear view of the sky for GPS fix (may not work well indoors or in dense urban canyons)
- If the GPS module can't get a satellite fix, it will fall back to WiFi scanning for location — just like the SPK model

If you're not sure which model you have: if the device makes sounds on boot, it's the SPK model. If it's silent, it's the GPS model.

#### Sounds Reference (SPK Model Only)

The GPS model has no speaker — all communication is through the screen only.

Sound	Meaning
Two short beeps	Startup
One short beep	Checking for alerts
Three rapid beeps	Alert active nearby
Voice: "No alert" / "Sin alerta"	All clear
Voice: "Needs configuration" / "Requiere configuración"	WiFi setup needed
Voice: "Retrying" / "Reintentando"	Connection issue, trying again
No sound (quiet mode on)	All status sounds suppressed — only actual alerts will sound

## Troubleshooting

### The setup page won't load

- Make sure you're connected to the **Icebreaker-XXXXX** network, not your regular WiFi
- Scan the second QR code again — it contains the secure link and password needed to access the setup page
- Disable mobile data temporarily if your phone keeps switching away from the Scout's network
- Try a different browser (Chrome works best)

### The device won't enter setup mode

- Make sure the device is powered on (USB-C connected, screen lit)
- Press and **hold** the button for at least 3 seconds — a quick tap won't work
- If the screen shows a status display, the device is in normal mode. Hold the button.

### Can't join the Scout's WiFi network

- Make sure you're scanning the first QR code (shown when you quick press the button in setup mode)
- If your phone's camera doesn't recognize the QR code, try holding it steady about 6 inches from the screen
- If the device rebooted, the network password may have changed — scan the QR code again

### The Scout connects to WiFi but doesn't check in

- Make sure the WiFi network has internet access
- The Scout needs to reach your Icebreaker server over HTTPS
- Check that the server URL is correct in the enrollment configuration
- If using a mobile hotspot, make sure the hotspot has mobile data enabled

### How do I change WiFi settings later?

Enter setup mode again (long-press the button for 3 seconds). The setup page will show your saved network names and let you update passwords or add new networks.

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*This guide covers the captive portal setup method. For organizations with IT support, a desktop Bluetooth setup tool is also available.*