

PROLO RING USER MANUAL

Prolo Ring

The All-in-One Wearable Ring Controller



1. OVERVIEW

Inside the Box

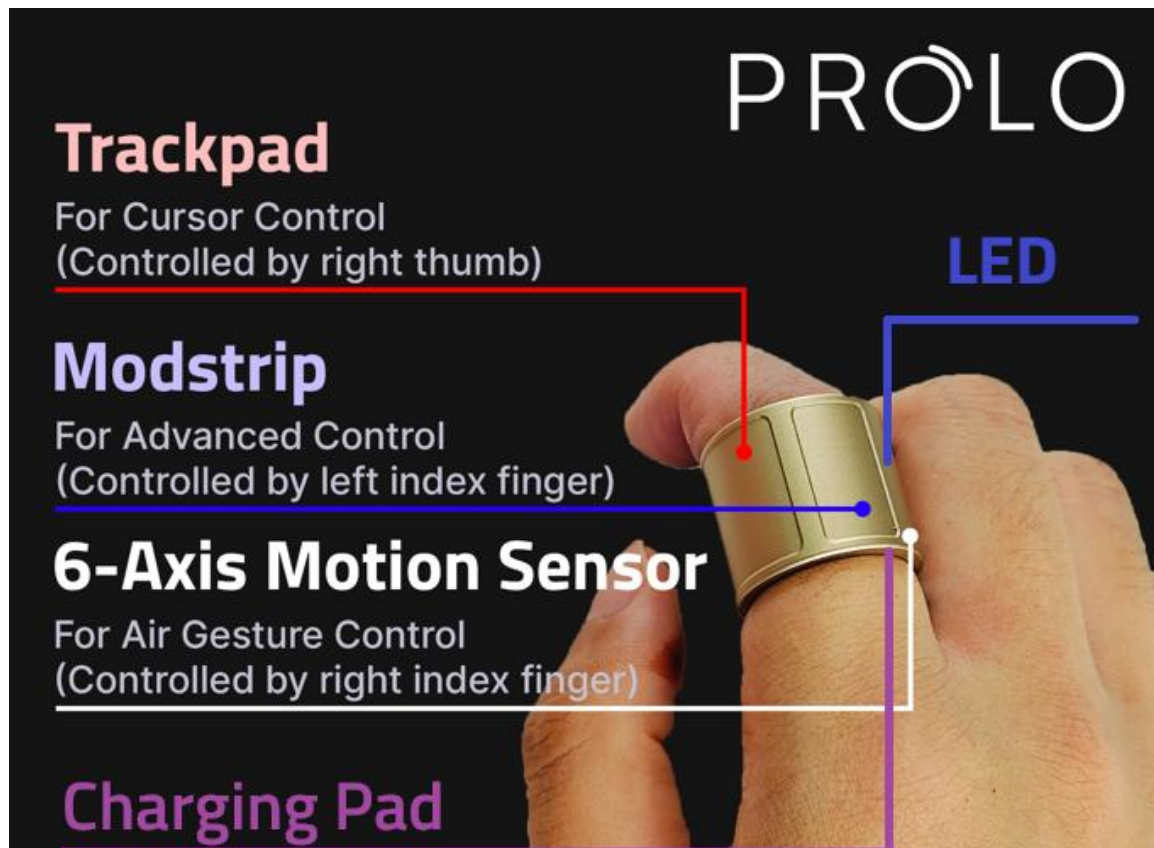
- Prolo Ring Device
- Ring Charging Cable
- Quick Start Guide
- Protective Pouch
- Ring Size Reducer Shims
- Ring Case Charger*
- Ring Case Charging Cable*



1. Premium Storage Box 2. Prolo Ring Device 3. Ring Case Charger*
4. Ring Charging Cable 5. Ring Case Charging Cable*
6. Quick Start Guide 7. Protective Pouch 8. Ring Size Reducers

*** Available with Pro Bundle Only**

Device Overview



1. **Trackpad Zone** – Thumb surface for cursor and click control.
 2. **Modstrip** – Top touch strip for mode switching and shortcuts.
 3. **6-Axis Motion Sensor** – Enables Air Mode motion gestures.
 4. **LED Indicator** – Displays power, Bluetooth, and mode status.
 5. **Charging Pad** – Magnetic connector for charging (inside).
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2. QUICK SETUP

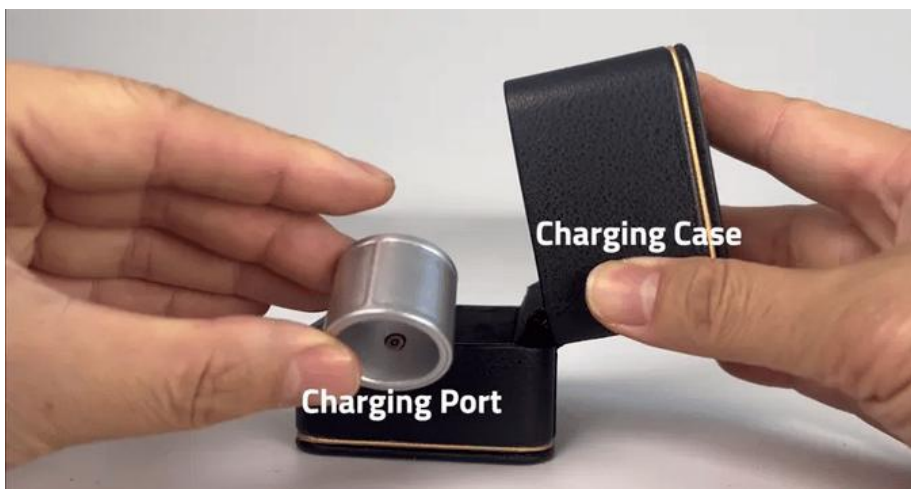
1. Before First Use.

⚠ Important: **Must Charge**

Because of shipping regulations, Prolo Ring is often delivered with a low battery. If you start using it immediately without a full charge, it may drop to a critical level and enter a self-protection state.

- Remove the protective seal from the charging pad.
- Charge the Prolo Ring fully before first use.
- For the first charge, use the ring charging cable and a 5V wall charger.
- After the first charge, charge using either the **Ring Charging Cable** or the **Ring Case Charger**.
- The magnetic pins will automatically align. The on-ring LED indicator will turn on to confirm charging and display battery status:

Slow white breathing (up to 20 seconds) = Charging | Solid white = Full charge



2. **Wear the Ring**

Remove the ring from the charger. Place on your **right or left index finger**, whichever feels more natural. Make sure the trackpad is facing the thumb at the bottom, and the Modstrip is on top.

3. **Automatic Power-On**

The ring powers on automatically when removed from the charger — no button needed.

4. **Pair via Bluetooth**

Open **Bluetooth Settings** on your device and select **“Prolo Ring.”**
3 LEDs Solid for ~2 seconds = connected.

5. **Start Controlling**

Prolo Ring starts with the cursor mode or the last functional mode.



3. MODES AND GESTURES

Prolo features four control **modes**: Cursor, Touch, Navigation and Air. The modes and gesture sets are selected/toggled using Modstrip.

Quick Mode Reference

Mode	How to Enter	Default Use	Additional Features
Cursor	Swipe Left on Modstrip	Mouse & cursor control	Edge Scroll, Cursor Drift + Joystick Assist, Mod Long Hold Options
Navigation	Swipe Right on Modstrip	In-App navigation	Desktop/XR Style vs Mobile Style; ModNav; Edge Scroll
Touch	Swipe Right + Hold Modstrip	Media control	Hold Modstrip to use ModTouch
Air	Swipe Left + Hold Modstrip	Motion control	Hold Trackpad to use AirTouch

Cursor Mode

For everyday cursor control, instant scrolling, hot buttons, snap actions, and quick shortcut gestures.

Move on Trackpad	Move cursor
Single Tap	Left click
Edge Scroll	Instant vertical scroll
Cross-Trackpad Swipe + Edge Hold	Cursor Drift + Joystick Assist
Mod Long Hold (Customizable)	Start scroll/pan (continuous). Double taps to exit
Move + Mod touch (add Mod while moving)	Cursor movement speed (2x speed by default)
Mod Hold + Trackpad Move	Click-and-drag. Release both fingers to stop dragging
Bottom Left Corner Hot Key: Long Hold	Middle click
Bottom Right Corner Hot Key: Long Hold	Right click
Bottom Left Corner Hot Key: Double Click	Left key press (Latched. Single tap to cancel)
Bottom Right Corner Hot Key: Double Click	Back
Dual-Finger Tap Hot Key: Track + Track	Show Desktop (Win + D)
Trackpad Hold + Single Air Tap	Snap cursor to left
Trackpad Hold + Double Air Tap	Snap cursor to right

Joystick Assist

A quick swipe from one edge toward the opposite edge followed by an edge hold starts automatic cursor drift. While holding, Trackpad position works like a joystick: the farther your thumb is from the center, the faster the cursor moves.

This is useful for long-distance cursor movement across large screens. Use normal Trackpad movement for fine positioning. The joystick assist feature can be turned off using Prolo Studio.

Navigation Mode

In-app **navigation** for presentations, browsing and e-reading. Two styles to choose from.

To toggle between Desktop/XR style and Mobile Style, use 7xTap + Press Hold Modstrip. Requires Re-Pair after changing Styles.

	Desktop/XR Style (Default)	Mobile Style (Overlay)
Edge Scroll	Instant Vertical Scroll	N/A
Swipe Up/Down (+Hold)	Up/Down arrow (continuous)	Mobile swipe up/down
Swipe Right/Left (+Hold)	Right/Left arrow (continuous)	Mobile swipe right/left
Tap	Enter	Mobile Single Tap
Double Tap	Consumer Back (XR Glasses)	Mobile Double Tap (Tiktok Like)
Triple Tap	Consumer Home (XR Glasses)	Mobile Double Tap (Tiktok Like)
Dual-Finger Pinch In	Zoom out (Ctrl -)	N/A
Dual-Finger Pinch Out	Zoom in (Ctrl =)	N/A

Note: Customizable gestures are available only with Pro Edition.

Important

After switching Mobile Style on or off, your phone must forget the ring and pair it again.

This is because Mobile Style changes the Bluetooth services the ring provides. Your phone may keep using the old cached Bluetooth profile from the previous bond, so the new mode may not work correctly until you remove the old pairing and reconnect from scratch.

ModNav Gestures — Extra Navigation control and customizations by holding Modstrip in Navigation Mode.

Mod Hold + Swipe Left	Home
Mod Hold + Swipe Right	End
Mod Hold + Swipe Up / Down	Page up / down
Mod Hold + Tap / Double Tap / Triple Tap	Customizable*

Touch Mode

Standard Gestures — Quick control for media.

Swipe Up (+Hold)	Volume up / Camera Shutter
Swipe Down (+Hold)	Volume down
Swipe Right (+Hold)	Next track
Swipe Left (+Hold)	Previous track
Tap	Play / Pause
Double Tap	Mute
Triple Tap	Customizable*

ModTouch Gestures — More media control and customizations by holding Modstrip.

Mod Hold + Swipe Right	Fast Forward
Mod Hold + Swipe Left	Rewind
Mod Hold + Swipe Up / Down	Customizable*
Mod Hold + Tap / Double Tap / Triple Tap	Customizable*

Air Mode

Standard Gestures — Control without touching any surface.

Swipe Left / Right	Customizable*
Single / Double Tap	Customizable*

AirTouch Gestures — Hold the Trackpad for more controls in Air Mode.

Trackpad Hold + Swipe Left / Right	Customizable*
Trackpad Hold + Single / Double Tap	Customizable*

Air Gesture Trigger (Pro Edition)

Air gestures are available on **Pro Edition** only.

How to trigger Air Gestures

1. **Tilt your finger** so the **charging port is at the bottom** of the ring.
2. When the ring detects the correct orientation, the **3 LEDs turn on (●●●)** to indicate **Air-Ready**.
3. While Air-Ready is on, perform an air gesture with **strong acceleration and deceleration** (a quick, deliberate motion).
4. When an air gesture is recognized, the **3 LEDs flicker briefly** to confirm the gesture was triggered.
5. Supported air gestures:
 - **Air-swipe left**
 - **Air-swipe right**
 - **Air click** (single click)
 - **Air double-click**
6. **Left-hand use:** enable **Left-Handed Settings** in Prolo Studio to use air gestures on the left hand.

Tip: If the 3 LEDs do not turn on, adjust the tilt angle until the charging port points down more clearly.

System & Mode Actions

Swipe Left on Modstrip	Enter Cursor Mode
Swipe Right on Modstrip	Enter Navigation Mode
Swipe Right & Hold on Modstrip	Enter Touch Mode
Swipe Left & Hold on Modstrip	Enter Air Mode
1x Tap (Modstrip) + Press Hold (Modstrip)	Connect / Switch / Unlock
2x Tap (Modstrip) + Press Hold (Modstrip)	Enter Pairing to Add a New Device
3x Tap (Modstrip) + Press Hold (Modstrip)	Toggle Device Status ←→ App Status
4x Tap (Modstrip) + Press Hold (Modstrip)	Shutdown (Requires Charging to Turn On)

5x Tap (Modstrip) + Press Hold (Modstrip)	Reset to Factory Default
6x Tap (Modstrip) + Press & Hold (Modstrip)	Enter OTA Mode for Firmware Update
7x Tap (Modstrip) + Press & Hold (Modstrip)	Toggle Navigation Style (Desktop/XR vs Mobile)
Palm Hold	Lock (Requires Unlock Gesture or Charging to Unlock)

Palm Hold is a natural gesture for moments when you're taking off the ring—or when you want to quickly lock it to prevent accidental inputs for a short time.

To unlock, simply **single tap + press-and-hold on the ModStrip**, or place the ring back onto the **charger**. When locked, 1x Tap + Press & Hold performs Unlock only (no device switching).

For longer breaks, we recommend removing the ring and storing it on the charger.

Note: Customizable gestures are available only with Pro Edition and above.

4. BUILT-IN FUNCTIONS

These core functions work instantly after pairing — no app required.
Works across all major systems (Windows, macOS, Android, iOS, Linux).

Cursor Control

- Move Cursor
- Left / Right / Middle Click
- Click-and-Drag / Drag-and-Drop
- Edge Scroll
- Left Click Latched
- Back
- Win + D
- Snap Left / Snap Right

Navigation

- Edge Scroll
- Arrow Up / Down
- Arrow Left / Right
- Scroll Up / Down
- Pan Left / Right
- Pinch In / Out (Zoom)
- Enter / Back / Home (XR Defaults)
- Finger Swipes (Mobile Style)
- Tiktok Like (Mobile Style)
- Page up/down
- Home / End

Media Control

- Camera Shutter

- Volume Up / Down
- Next / Previous Track
- Fast Forward / Rewind
- Play / Pause
- Mute

5. SYSTEM COMMANDS

The Prolo Ring uses standard Bluetooth HID and does not require any drivers or software for basic operation.

Automated First-Time Pairing

1. Remove the ring from the charger or touch the trackpad to wake it.
2. Open **Bluetooth Settings** on your device and search for: **“Prolo Ring”**
3. Select it to connect.

LED Behavior

- **Slow triple-blink** = Ring is in pairing / advertising mode (discoverable)
- **Connecting chase (1→2→3 sweep repeating)** = Ring is **trying to connect / switching hosts**
- **Solid 3 LEDs for 2 seconds (●●●)** then off = Successfully connected

System Commands on the Modstrip (Tap + Hold)

System commands are performed on the Modstrip.

Tap Preview (Bar Pattern)

- With each tap, the **LED bar grows: 1 → 2 → 3**
- For **4–5 taps**, the bar **wraps** but becomes **more obvious**:
 - **4 taps = 1-bar noticeably brighter**
 - **5 taps = 2-bar noticeably brighter**

When the tap count is reached, **press & hold** the Modstrip to execute the command.

Success & Abort Rules

- **Success confirmation:** all **3 LEDs fast triple-strobe (3x)**
- **Abort conditions:**
 - Any **touchpad touch** cancels the pending command
 - No press-and-hold detected within **2 seconds from the last tap**
- **Abort indication:** Down-sweep (3→2→1), then off

1x Tap + Press & Hold – Connect / Switch / Unlock

This is your **main Bluetooth control gesture**.

Gesture:

- **1 tap + press & hold on the Modstrip**

Behavior:

- **If the ring is *not connected***
 - The ring will try to reconnect to the **last used host (A)**.
 - If it cannot connect after a 10 seconds, it stops.
- **If the ring *is already connected to a host (A)***
 - The ring will auto-search and switch **to the next remembered device (B, C, ...)** and try to connect.
 - If no other device responds, it **reverts to A**.
- **If you repeat the gesture within 10 seconds** of the last connect attempt
 - The ring is forced to connect to the next available remembered device for 10 seconds.
 - when a connection succeeds:
 - **LED: 3 LEDs solid for ~2 seconds** to confirm the new host.

LED during operation:

- Tap preview: **1-bar**
- While searching/connecting: **Connecting chase (1→2→3 sweep repeating)**

- On success: 3 fast-strobes (all LEDs) + 3 LEDs solid ~2s

Tip: The ring remembers multiple bonded hosts (e.g., laptop, tablet, phone) and lets you roam between them using just this one gesture.

2x Tap + Press & Hold – Add a New Device (Pairing)

Use this when you want to pair the ring with a **new host** (e.g., a new laptop or phone).

Gesture:

- **2 taps + press & hold on the Modstrip**

LED:

- Tap preview: **2-bar**
- While waiting: **slow triple-blink** (pairing)
- On success: **3 fast-strobes (all LEDs) + 3 LEDs solid ~2s**

Behavior:

- Puts the ring into **pairing / advertising mode** so new devices can discover it.
- LED: **pairing pattern** (slow triple-blink) while it waits for a new connection.

Important:

Before adding a new device, please **disable Bluetooth** or **disconnect** the ring from any devices it's already paired and connected to.

This prevents existing hosts from “stealing” the connection while you are trying to pair a new one.

Then, on the new device:

1. Open **Bluetooth Settings**
2. Select **“Prolo Ring”**
3. Wait for the LEDs to show **3 solid bars for ~2 seconds** to confirm pairing.

The ring stores up to 3-5 previously paired devices depending on the edition.

3x Tap + Press & Hold – Toggle Device Status / App Status

Use this when switching between **standalone HID device status** and **Prolo Studio App Status**.

Gesture:

- **3 taps + press & hold on the Modstrip**

Behavior:

Toggles between:

- **Device Status** – default, plug-and-play Bluetooth HID (no software required)
 - **LED:** 3 LEDs **ramp down** (max → min), then reboot indication
- **App Status** – connects to Prolo Studio for advanced customization, macros, and profiles
 - **LED:** 3 LEDs **ramp up** (min → max), then reboot indication
 - The broadcast name becomes **“Prolo App Ring”** (not shown as a standard HID device)

LED:

- Tap preview: **3-bar**
- On success: **3 fast-strobes (all LEDs)**, then **ramp up/down + reboot animation**
- When the Prolo Ring boots in "App Status," the three LEDs will flash twice to indicate this mode on startup. To use the ring normally after configuration with Prolo Studio App, toggle the ring back to "Device Status".

4x Tap + Press & Hold – Shutdown (Requires Charging to Wake Up)

Use this to fully power off the ring for storage, long time travel, or to recover from unusual behavior.

Gesture:

- **4 taps + press & hold on the Modstrip**

Behavior:

- Powers the ring **completely off** (not sleep mode)
- The ring will **stop advertising** over Bluetooth and will not respond to gestures
- **Charging is required to wake it up**

- Attach the magnetic charging cable or place it in the case charger to turn it back on

Notes:

- Shutdown is useful when you want to prevent accidental inputs in a bag/pocket
- If the ring becomes unresponsive, try **Shutdown**, then **reconnect power** to restart cleanly

LED:

- Tap preview: **1-bar noticeably brighter**
- **On success: 3 fast-strobes (all LEDs), then a short shutdown sweep, then off**

5x Tap + Press & Hold – Reset & Clear All Bonds

Use this as a **factory-style reset** for Bluetooth and settings.

Gesture:

- **5 taps + press & hold on the Modstrip**

Behavior:

- **Clears all Bluetooth pairings** (bonds) from the ring
- **Resets settings to default** (including profiles stored on the ring)
- Automatically **enters pairing mode** so you can set it up again

After reset:

1. Open Bluetooth settings on your main device
2. Pair again with **“Prolo Ring”**
3. Reconfigure Prolo Studio if needed

LED:

- Tap preview: **2-bar noticeably brighter**
- On success: **3 fast-strobes (all LEDs)**, reset sweep, then **slow triple-blink** (pairing)

6x Tap + Press & Hold – Enter OTA Mode for Firmware Update

Use this when you want to update the Prolo Ring firmware over the air.

The ring enters OTA mode and appears as **DFUTarg** in the firmware update app. **DFUTarg** is the temporary update-mode name used by the ring during firmware update/recovery. After the update finishes successfully, the ring should reboot and appear again as **Prolo Ring**.

Gesture

6 taps + press & hold on the Modstrip

Behavior

- Enters firmware update / OTA mode
- Temporarily disconnects from normal Bluetooth mode
- Advertises as **DFUTarg**
- Waits for firmware upload from a smartphone or from nRF Connect for Desktop with a Nordic USB dongle

LED

- On success entering OTA mode: **3 fast strobes**, then OTA/update indication
- During update: keep the ring close to the phone or dongle
- After update: the ring should reboot automatically

Firmware Update Methods

Prolo Ring firmware can currently be updated in two ways:

1. **Recommended: Android update using Prolo Firmware Updater**
2. Manual smartphone update using **nRF Connect for Mobile**
3. **Desktop update using nRF Connect for Desktop + Nordic nRF52840 USB Dongle**

Prolo Studio does not currently perform the firmware update directly.

Firmware Update Method A — Recommended Android Update with Prolo Firmware Updater

Use this method if you have an Android phone. This is the easiest firmware update method.

What you need

- Android phone
- Prolo Firmware Updater installed
- Internet connection
- Bluetooth enabled
- Location enabled during update if Android requires it for Bluetooth scanning
- Prolo Ring charged and placed close to the phone

Steps

1. Download and install **Prolo Firmware Updater for Android**.
2. Open the app and grant the requested Bluetooth / Nearby Devices permissions.
3. The app will automatically prepare the latest firmware package.
4. On the ring, perform **6x Tap + Press & Hold** on the Modstrip to enter OTA mode.
5. Wait for the ring to show the OTA entry LED indication.
6. In the app, tap **Next**.
7. Keep the ring close to the phone during the update.
8. Wait until the app shows **Update complete**.
9. After the update, wait **10–20 seconds** for the ring to reboot.
10. Perform **5x Tap + Press & Hold** on the Modstrip to reset the ring before pairing again.
11. Forget/remove old Prolo Ring Bluetooth entries from previously paired phones, computers, and Prolo Studio.
12. Pair again with **Prolo Ring**.

Notes

- Android may ask you to allow installation from this source if you are installing the beta APK directly.

- If the app cannot find the ring, perform **6x Tap + Press & Hold** again and tap **Next** again.
- Keep the ring within about **1 meter / 3 feet** of the phone during update.

Firmware Update Method B — Manual Smartphone Update with nRF Connect for Mobile

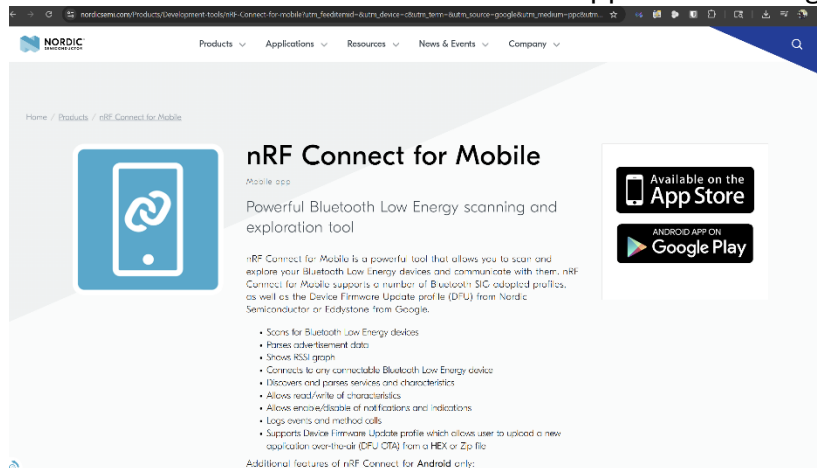
Use this method if you are updating with an iPhone or Android phone.

What you need

- iPhone or Android phone
- **nRF Connect for Mobile** installed
- Firmware .zip file saved on your phone, such as FW_1.0.6.zip

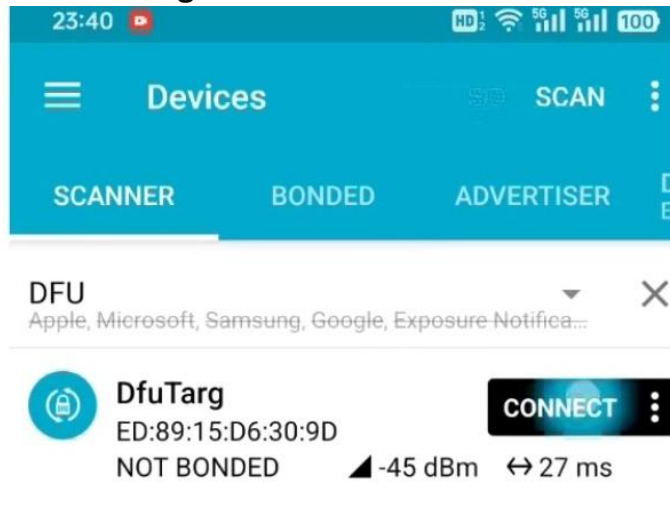
Steps

1. Install **nRF Connect for Mobile** from the App Store or Google Play.

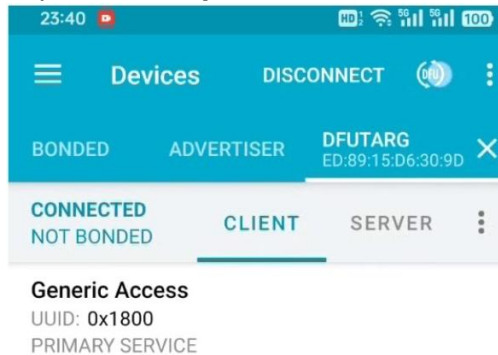


2. Download the firmware .zip file to your phone.
3. On the ring, perform **6x Tap + Press & Hold** on the Modstrip to enter OTA mode.
4. Open **nRF Connect** and tap **Scan**.

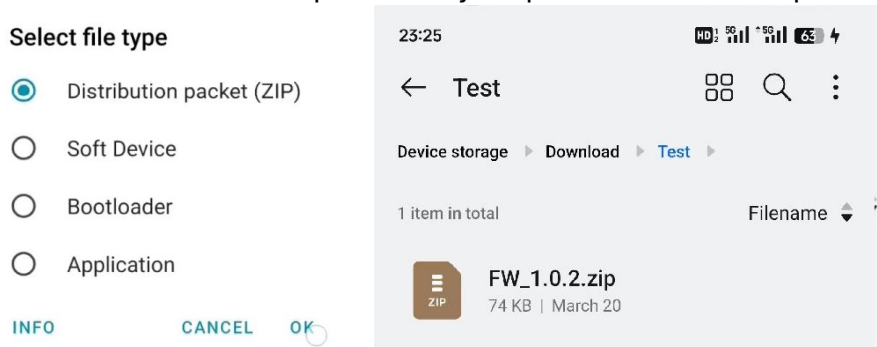
5. Find **DFUTarg** in the device list and connect to it.



6. Tap the **DFU update** button in the top-right corner.



7. Choose the firmware .zip file from your phone's document picker.



8. Select file type: **Distribution packet (ZIP)**.

9. Tap **Start Upload**. The update usually takes about **20–60 seconds**.

10. When the upload finishes, the ring should reboot automatically.

Firmware Update Method C — Desktop Update with nRF Connect for Desktop + USB Dongle

Use this method if the smartphone update is difficult or unreliable. This method uses **nRF Connect for Desktop** on your computer together with a compatible **Nordic nRF52840 USB Dongle**.

The ring still needs to be manually placed into OTA mode before the desktop app can find it.

What you need

- Windows, macOS, or Linux computer
- **nRF Connect for Desktop** installed
- **Bluetooth Low Energy** app installed inside nRF Connect for Desktop
- Compatible **Nordic nRF52840 USB Dongle**



- Firmware .zip file, such as FW_1.0.6.zip
- Prolo Ring charged and placed close to the dongle

Steps

1. Plug the **nRF52840 USB Dongle** into your computer.
2. Open **nRF Connect for Desktop**.
3. Open the **Bluetooth Low Energy** app inside nRF Connect for Desktop.
4. On the ring, perform **6x Tap + Press & Hold** on the Modstrip to enter OTA mode.
5. The ring should temporarily appear as **DFUTarg**.
6. In nRF Connect for Desktop, scan for nearby devices.

7. Select and connect to **DFUTarg**.
8. Start the **DFU / firmware update** process.
9. Choose the firmware .zip file.
10. Start the upload.
11. Keep the ring within **1 meter / 3 feet** of the dongle during the update.
12. When the upload finishes, the ring should reboot automatically and appear again as **Prolo Ring**.

When to use this method

Use the desktop dongle method if:

- Smartphone update does not work reliably
- Your phone cannot find **DFUTarg**
- The update repeatedly fails on mobile
- Customer support asks you to try the desktop dongle method

Important after OTA update

After the OTA update finishes and the ring reboots:

1. Wait **10–20 seconds** for the ring to restart.
2. Check whether it appears again as **Prolo Ring**.
3. Perform **5x Tap + Press & Hold** on the Modstrip to reset the ring and clear bonds/settings before pairing again.
4. On all previously paired phones, computers, and Prolo Studio apps, forget/remove old **Prolo Ring** Bluetooth entries.
5. Pair again with **Prolo Ring**.

A stale Bluetooth bond from one host may prevent the ring from bonding correctly again, and it may also affect bonding attempts from other hosts.

If the ring does not restart cleanly after OTA or reset, connect it to a powered **5V wall charger** using the Prolo charging cable to re-trigger charging/startup. Avoid power banks, computer USB ports, or the charging case for recovery.

Palm Lock (Quick Lock / Temporary Input Block)

Use this to temporarily prevent accidental inputs while the ring stays powered on.

Gesture:

- **Palm Hold** (place your palm against the touch surface and hold)

Behavior:

- Locks input (no cursor/gesture output) until unlocked
- Useful when adjusting the ring, taking it off briefly, or when you expect accidental touches

LED:

- On lock: **3 fast-strobes (all LEDs)**, then LEDs turn off

Unlock:

- **1x Tap + Press & Hold** on the Modstrip unlocks the ring
- When locked, **1x Tap + Press & Hold performs Unlock only** (no device switching)
- Placing the ring on the charger also exits Palm Lock.

On-Charger Control

Use this when the ring is charging but you still want to maintain control, especially when the battery is very low.

Gesture:

- While the ring is on the charger, hold the Trackpad for 15 seconds.

Behavior:

- The ring temporarily exits the charging-only display state.
- Normal control functions become available while the ring remains on the charger.
- You can move the cursor, click, use gestures, switch modes, reconnect, or perform system commands.

Exit:

- Remove the ring from the charger, or let the ring go to sleep/restart.

Note:

· For normal daily use, remove the ring from the charger before using it. On-Charger Control is designed for low-battery use, recovery, and testing while powered.

Connection Status Summary

These LEDs only show briefly during actions. If nothing is happening, the ring may be idle or asleep.

- **Pairing mode** (discoverable): slow triple-blink (●●●). Waiting for a new device to pair.
- **Connecting / switching** hosts: current slot LED breathing (●○○). The breathing LED indicates which saved device slot is being used.
- **Connected successfully**: slot bar briefly → solid 3 LEDs (~2 s) → off. Confirms the connection / pairing completed.

Supported Devices

Prolo Ring connects to:

- Windows / macOS / Linux
- iOS / Android
- Tablets, phones, smart TVs
- VR headsets, AI glasses, projectors, media boxes

No drivers or apps required for basic use.

6. LED INDICATORS

The Prolo Ring uses three white LEDs to provide visual feedback for modes, gestures, charging, system commands, and connection status.

Mode Indicators (Swipe Gestures)

Mode	Trigger Gesture	LED Pattern
Cursor Mode	Swipe Left	1-bar single pulse (●○○)
Cursor Mode – Navigation Set	Swipe Right	1-bar double pulse (●○○) (●○○)
Touch Mode	Swipe Right + Hold	2-bar steady then off (●●○)
Air Mode	Swipe Left + Hold	3-bar steady then off (●●●)

Gesture Feedback Flicks

Mode	LED Used	Pattern
Cursor Mode	LED 1	●○○
Touch Mode	LED 2	○●○
Air Mode	LED 3	○○●

Air Mode

Air-Ready: 3 LEDs solid (●●●) when the charging port is facing downward and air gestures are enabled (Pro Edition).

Air Gesture Detected: LED3 quick flick once (○○●) when an air gesture is recognized.

System Commands (Tap + Hold Gestures)

System-level actions use a unified **Bar + Strobe** pattern.

Tap Preview (Bar Rule)

- Tap count preview: **1 → 2 → 3 bars**
- **4 taps:** bar wraps to **1**, shown as **strong/brighter**

- **5 taps:** bar wraps to **2**, shown as **strong /brighter**

Success Rule

- **All 3 LEDs fast-strobe 3 times** to confirm success

Abort Rule

- If canceled by touchpad touch OR timed out (2 seconds after last tap): **All LED off**

System Command LED Table

Gesture (Tap + Hold)	Action	Tap Preview	During Action	Success / Follow-Up
1x	Connect/Switch/Unlock	1-bar	Connecting chase (1→2→3 sweep repeating)	3-LED 3 strobes + 3-LED solid (~2s)
2x	Add Device (Pairing)	2-bar	Pairing (slow triple-blink)	3-LED 3 strobes + 3-LED solid (~2s)
3x	Toggle Device/App Status	3-bar	3-LED ramp (down/up) + reboot sweep	3-LED 3 strobes + reboot
4x	Shutdown	1-bar Brighter	Shutdown sweep	3-LED 3 strobes + off
5x	Reset Default	2-bar Brighter	Reset sweep	3-LED 3 strobes + pairing triple-blink
Palm	Lock	3-LED fast 3-strobes	Lock sweep	3-LED 3 strobes + lock

Connection & Pairing Indicators

LED Pattern

Meaning

All 3 LEDs breathe for ~3 seconds, then lighter breathing

Pairing / advertising (discoverable)

One LED breathes (slot indicator), then off

Connecting / switching hosts

Slot bar briefly → 3 LEDs solid (~2 s) → off

Successfully paired / connected

Charging Indicators

LED Pattern

Meaning

Slow white breathing (20 seconds)

Charging (initial display window)

Solid white

Fully charged

No light after 20 seconds

Charging idle (while on charger, touch to wake)

Battery Indicators

LED Pattern

Meaning

3-bar fast blink ping (periodic every 15 seconds)

Background low-battery ping

3-bar 3 fast blinks then shutdown

Critically low battery

Idle / Background Behavior

LED Pattern

Meaning

LED1 short tick once every ~10 seconds

Idle and connected

Paused automatically

During foreground/system animations

State Transitions

LED Pattern

Meaning

Sweep LED Animations

Boot startup / Wake from sleep / Shutdown / Charger detached / Lock

Quick Reference Summary

Category

LED Behavior

Modes

1-bar, 2-bar, 3-bar pulses

Gesture Feedback

One LED tick based on active mode

System Commands

Tap preview bar + **3 success strobes**

Pairing

Slow triple blink

Connection / Switching

Connecting chase (1→2→3 sweep repeating)

Connected

3-LED solid (~2 seconds)

Charging

Breathing → off after 20 seconds

Low Battery

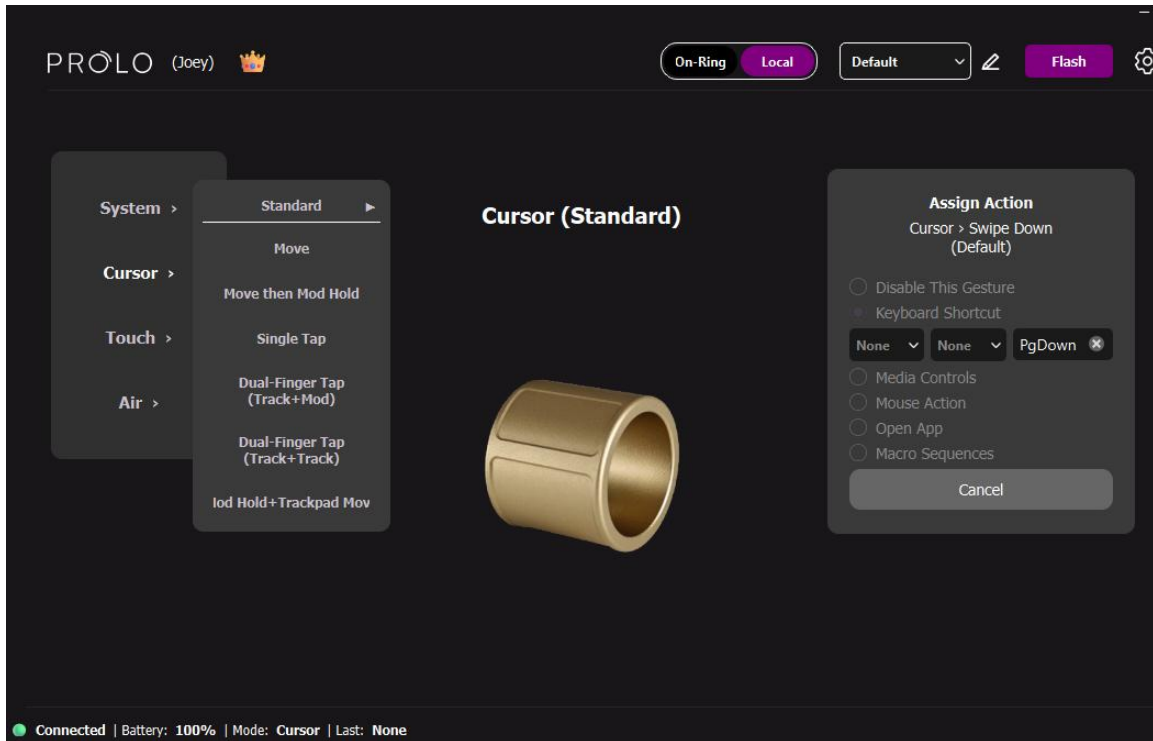
3-LED fast blink

Shutdown

Shutdown sweep → off

7. CUSTOMIZATION WITH PROLO STUDIO

Prolo Studio Introduction



Unlock advanced features with **Prolo Studio**, available for Windows, macOS, and Linux.

You can map gestures to shortcuts, control media, launch apps, or build complex macros — all from one interface.

Download Prolo Studio: proloring.com/downloads

(Prolo Studio customization features require the Pro Edition.)

Note that Prolo Studio is optional—you only need it occasionally when you want to change settings. After you Flash to Ring, your customizations are saved on-the ring, so Prolo Ring works anywhere as a standard Bluetooth HID device—no app or driver needed.

Accessibility and Keyboard Navigation

Prolo Studio App 1.0.6 supports keyboard navigation for users who prefer or require non-mouse operation. You can use a D-pad or arrow keys together with Tab, Enter, and Esc to move through menus, select gestures, and adjust values.

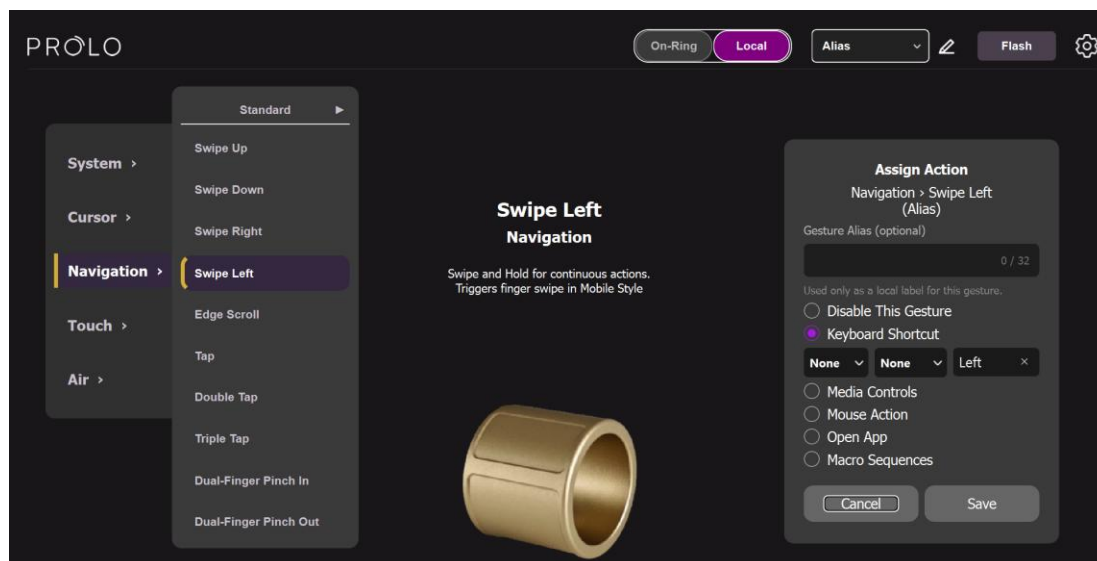
Basic keyboard controls:

- Tab: move focus forward between the top bar, left menu, gesture list, action panel, configuration controls, and dialog fields.
- · D-pad / Arrow keys: move up, down, left, or right through menus, 2nd level menus and Advanced sets.
- Enter: select the highlighted item, open or confirm a button/dropdown, or apply the current value.
- Esc: close an open menu, dropdown, or dialog, or cancel the current edit.

Typical workflow:

1. Use the D-pad or arrow keys to move through menu items or value options.
2. Press Tab until the desired action is focused.
3. Press Enter to select, open, or apply.
4. Press Esc to close popups and return to the previous level.

This can be used to navigate the main gesture menu, profile selector, action assignment panel, Device Management, and the Advanced Customizations page. Some operating-system dialogs, such as file pickers or Bluetooth permission prompts, may follow the keyboard behavior of Windows, macOS, or Linux.



DEVICE Status & APP Status

Prolo Ring operates in two distinct statuses to support both universal compatibility and advanced features.

DEVICE Status (Default)

DEVICE Status is the standard operating status of the Prolo Ring.

- Works on **all devices** using **Bluetooth HID**
- No software required
- Provides all built-in gestures, cursor control, media control, and motion features
- Behaves like a universal mouse/remote
- Ideal for laptops, desktops, tablets, phones, smart TVs, projectors, VR, and more

Use Device Status whenever you want instant pairing, plug-and-play control, or when you're using a computer where installing apps is restricted (school, office, shared workstations).

APP Status (For Setup and Customization)

APP Status activates when the ring connects directly to **Prolo Studio** on your computer. APP Status is used when the ring connects directly to Prolo Studio on your computer. In this status, the app is intended primarily for setup, customization, testing, and gesture reference.

Because input is processed through the app, response may feel slower than in normal device operation. In addition, some advanced behaviors implemented directly in firmware—such as certain combined gestures like Modstrip hold + click-and-drag—are not fully supported in APP Status.

For the best experience, use APP Status to configure and customize the ring, then switch back to DEVICE Status for full functionality, faster response, and the complete native gesture experience.

In App Status, you can:

- Fine-tune sensitivity, LEDs and Bluetooth transmission power
- Save configurations back to the ring
- Access gesture animation previews and real-time diagnostics

For Pro Editions, you can also:

- Build complex macros
- Insert key sequences, combos, or automation chains
- Flash the customized actions into the ring
- Launch applications
- Create & switch multiple profiles instantly

Important:

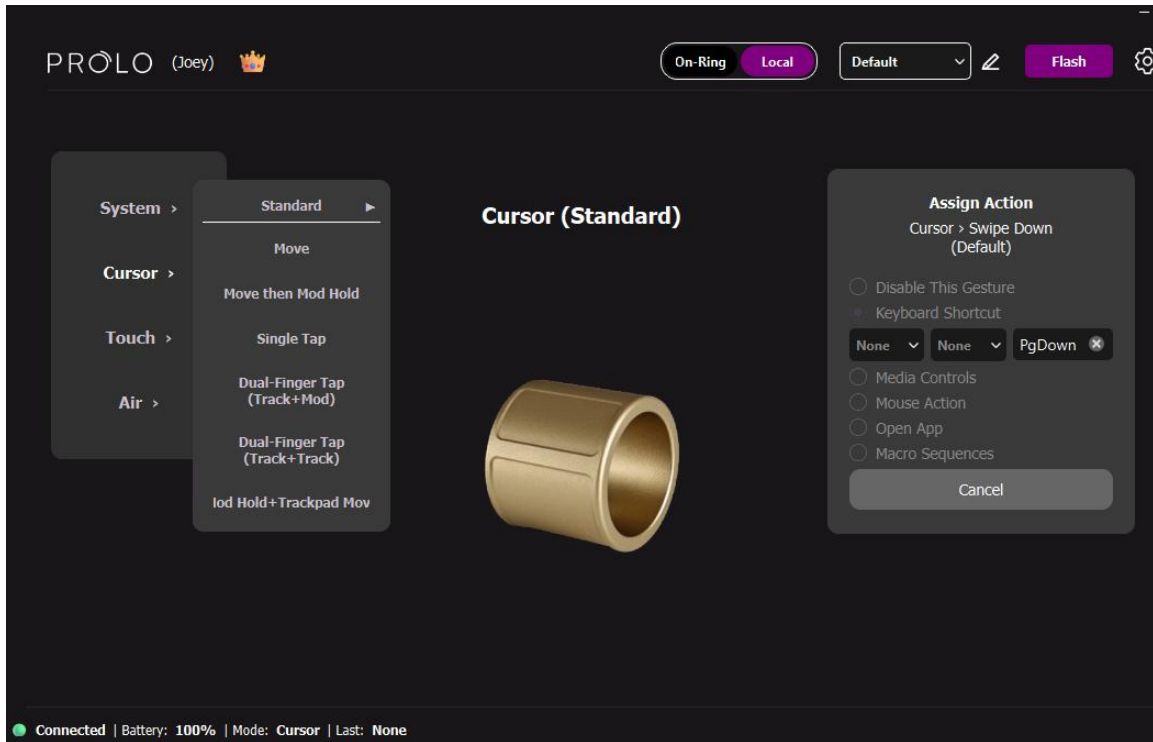
- App Status requires the Prolo Studio app running in the background
 - Only one ring can be actively registered with the Studio app at a time
 - The ring must manually switch into App Status using a gesture.
 - Flash feature is not available with Standard/Basic Editions.
-

Switching Between Status

Toggle Device Status / App Status:

- **3x Tap + Press & Hold on the Modstrip**

Main Dashboard



Main dashboard contains:

- Top Bar
- Left Panel
- Middle Panel
- Right Panel
- Bottom Bar

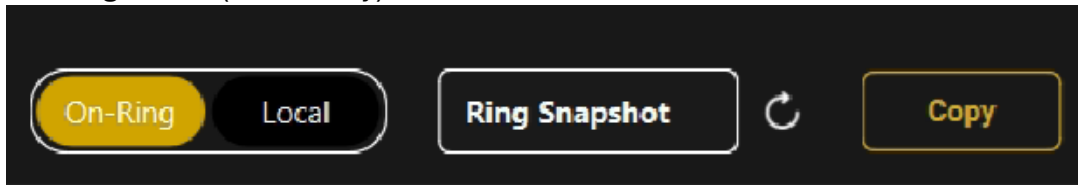
Top bar (from Left to Right):



- Logo
- Owner name
- Edition (Standard / Pro / Founder)
 - o Standard Edition can upgrade to Pro using the “Upgrade to Pro” link
- Profile Toggle (On-Ring / Local)
- Profile selector (dropdown)

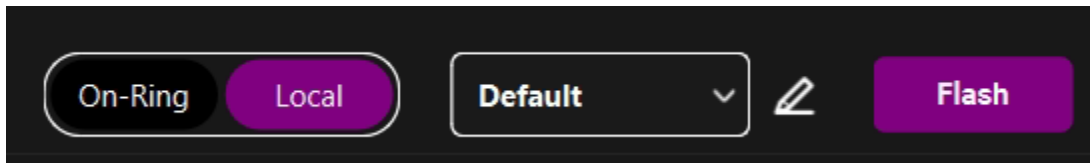
- Secondary action (e.g., Refresh / Rename)
- Primary action (e.g., Copy / Flash)
- Configuration

On-Ring Profile (Read-Only)



The **On-Ring Profile** is read-only inside Prolo Studio. You can copy the ring's current configuration ("Ring Snapshot") to a **Local Profile** for editing.

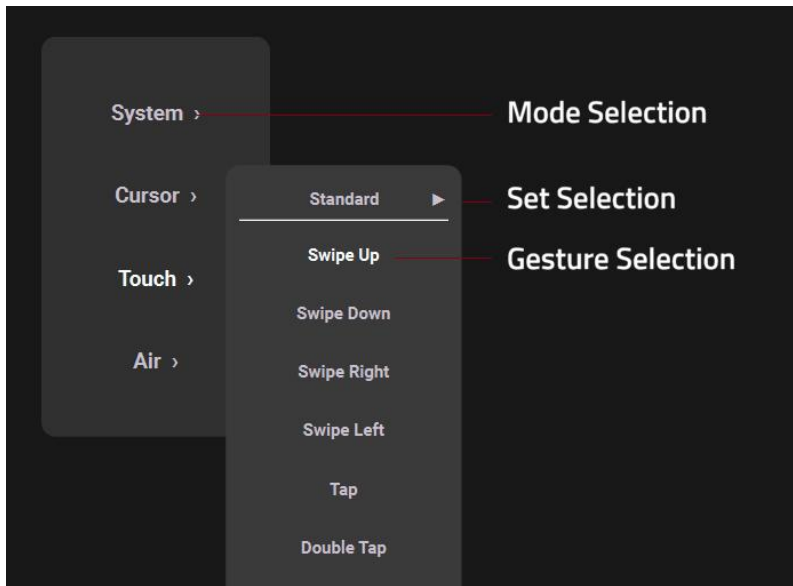
Local Profiles



Local Profiles are stored on your computer and appear in the profile dropdown.

- Select a Local Profile to edit it
 - Flash it to the ring to run customized gestures without relying on the app (*Pro Edition Only*). Note that "Flash" feature is not available with Standard/Basic Editions.
-

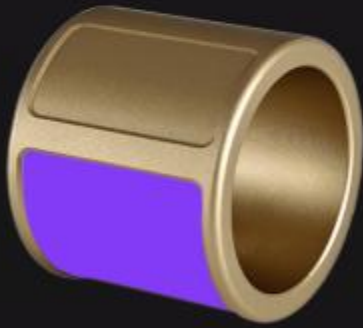
Left Panel (Selection)



- **Level 1:** Mode selection
- **Level 2:** Set selection
- **Level 3:** Gesture selection

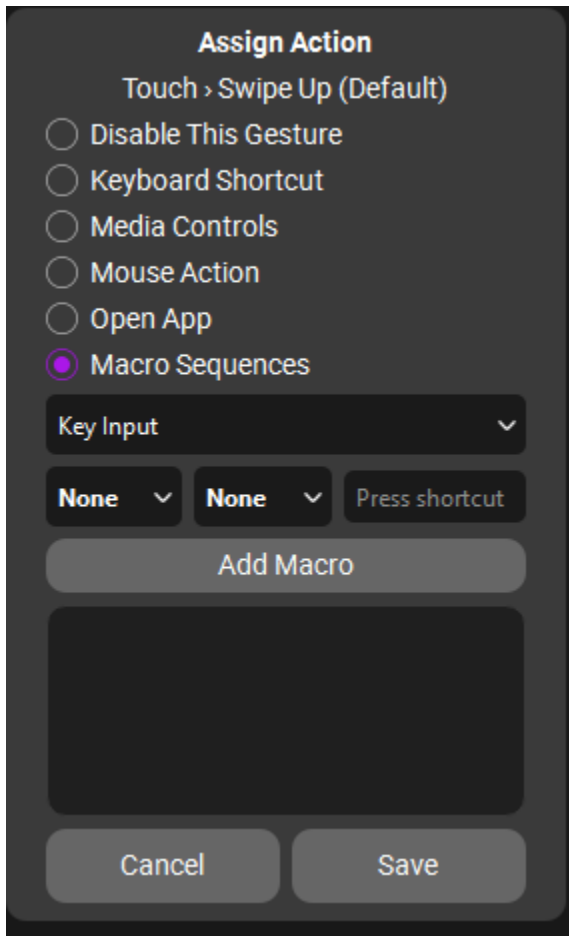
Middle Panel (Gesture Animation)

Cursor (Standard)



- Gesture name and mode name
- Gesture animation tutorial / preview: Move cursor on top of the image to show the animation

Right Panel (Remap & Assign Actions)



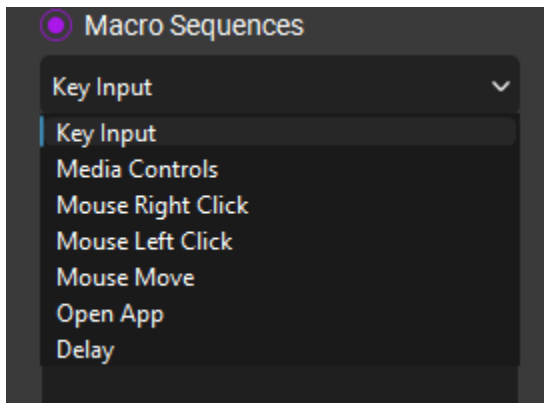
Assign an action to the selected gesture.

Available Action Types:

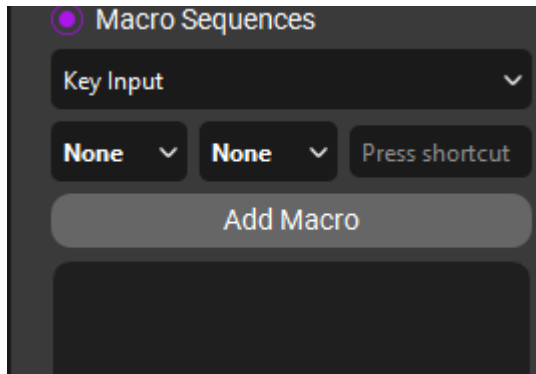
- **Keyboard Shortcuts** – Map gestures to specific keys.
- **Media Controls** – Adjust volume, play/pause, or skip tracks.
- **Mouse Actions** – Click, drag, or scroll.
- **Open App** – Launch any program instantly.
- **Macro Sequences** – Combine multiple actions into one gesture.

Macro Building

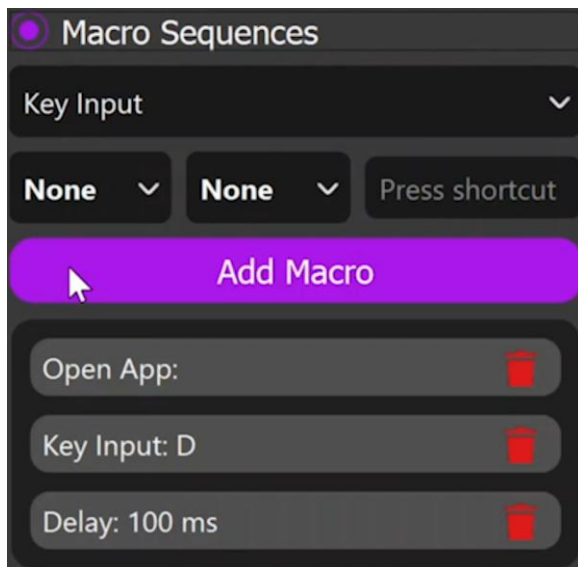
- Choose from the following action.



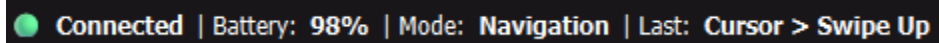
- Add them into the sequences



- Save the sequences to form a macro.



Bottom Bar



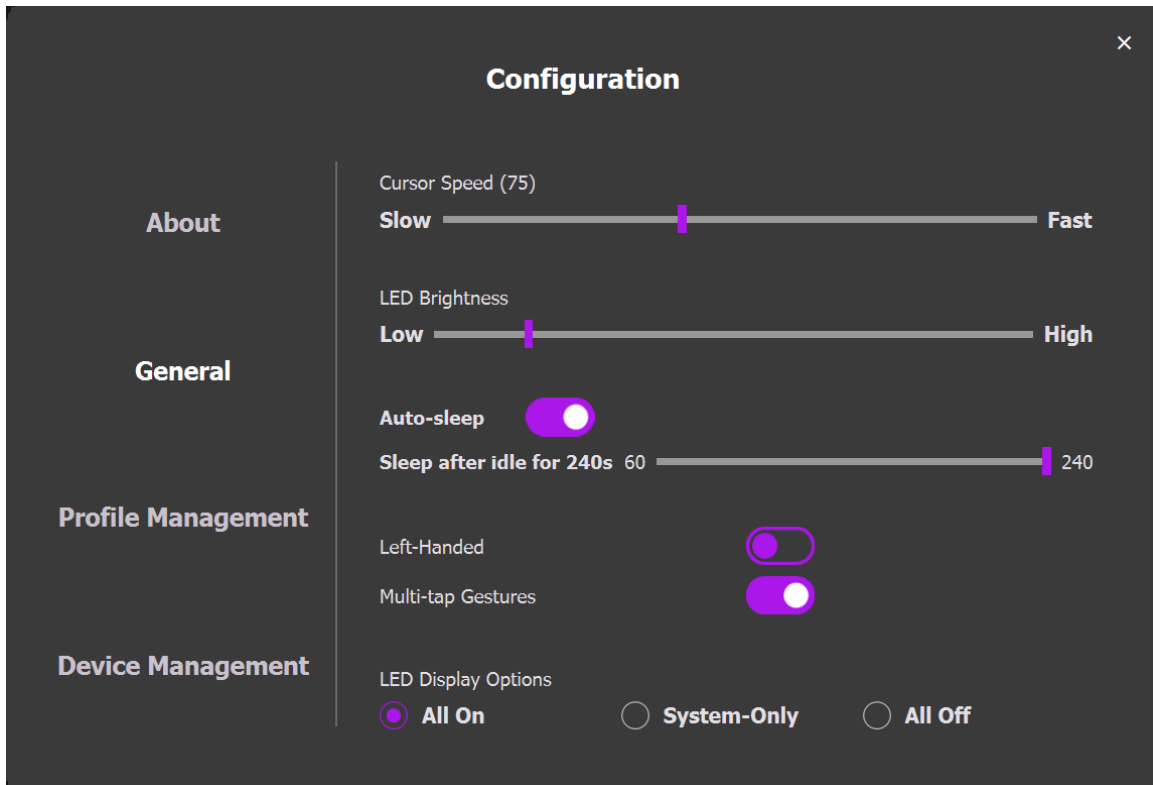
- Connect Status
- Battery Level
- Current Mode
- Last Gesture Triggered



If a ring has been registered before, a quick connect button will appear when the ring is disconnected. To quick connect, 2x Tap + press hold the Modstrip to manual advertise first, then press “connect” button.

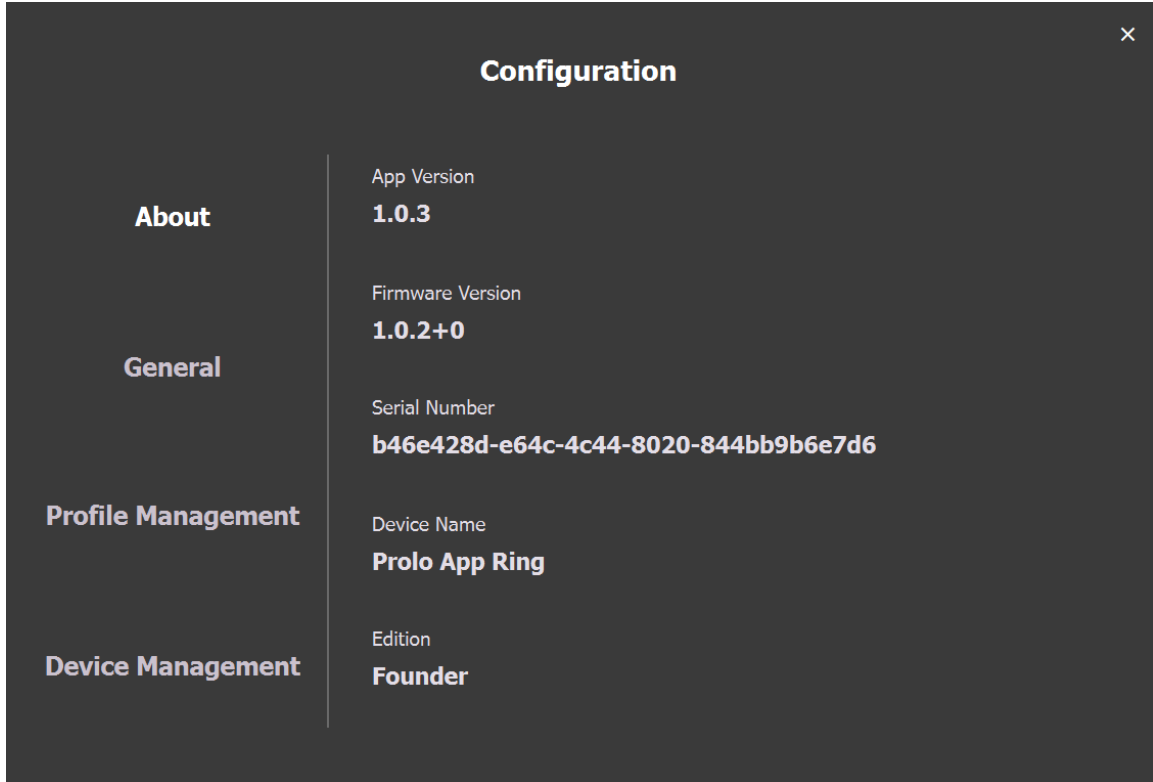
Configuration

General



Go to **Config** → **General** to adjust global settings.

About

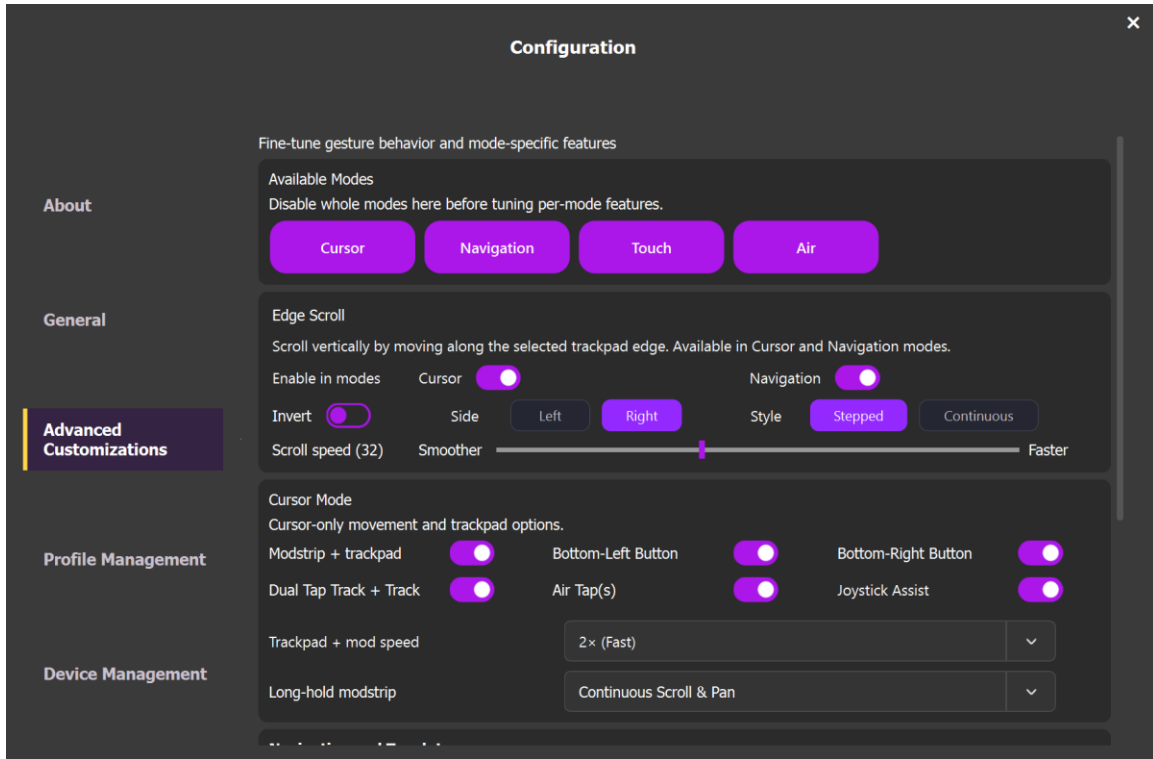


The screenshot shows a dark-themed 'Configuration' dialog box with a close button (X) in the top right corner. On the left is a sidebar with four menu items: 'About', 'General', 'Profile Management', and 'Device Management'. The 'About' item is selected. The main content area displays the following information:

App Version	1.0.3
Firmware Version	1.0.2+0
Serial Number	b46e428d-e64c-4c44-8020-844bb9b6e7d6
Device Name	Prolo App Ring
Edition	Founder

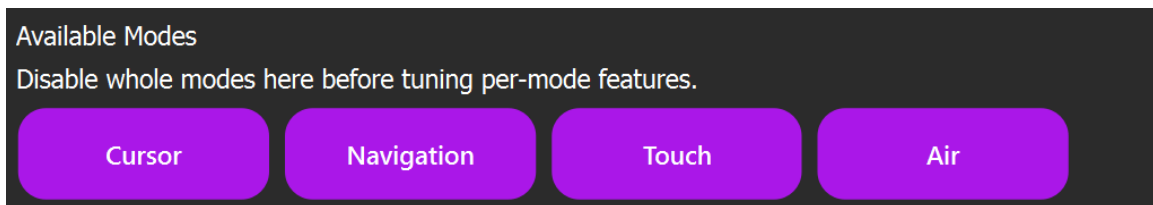
Go to Config → About to view version info and device details.

Advanced Customizations



The Advanced Customizations page lets you enable or disable major gesture groups and fine-tune how each mode behaves. Disable unused gesture groups to reduce false triggers and improve recognition accuracy for the gestures you use most often.

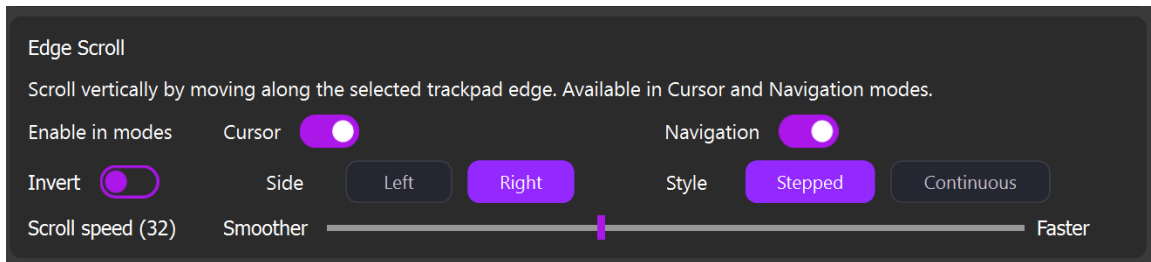
Available Modes



At the top of the page, you can enable or disable the ring's four main modes:

Disable any mode you do not plan to use. This can simplify the gesture set, reduce accidental triggers, and make the ring easier to learn.

Edge Scroll Options



Edge Scroll

Turn Edge Scroll on or off for instant one-finger scrolling in Cursor Mode or Navigation Mode.

When enabled, sliding in the edge scroll region triggers scrolling instead of normal cursor movement. This is useful when you want to scroll quickly without switching to another mode.

Edge Scroll Invert

Invert the direction of edge scroll

Side

Edge scroll on Left or Right

Style

Edge scroll by stepped or continuous by displacement based algorithm

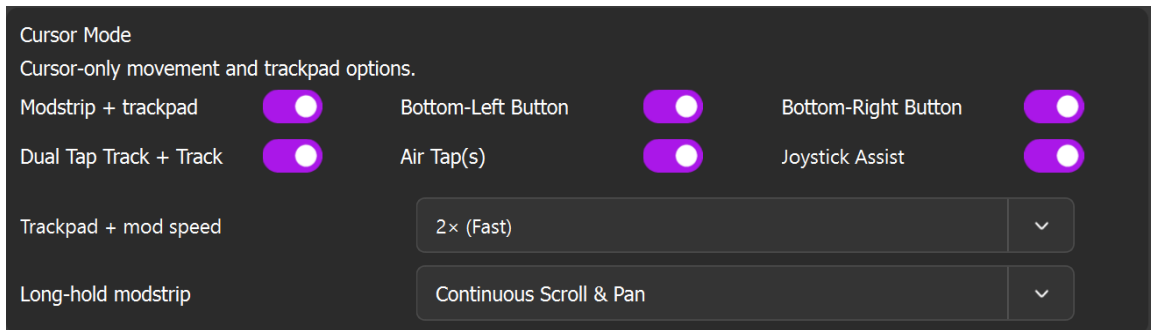
Edge Scroll Step

Use Edge Scroll Step to adjust how quickly edge scrolling responds.

Choose a slower setting for precision reading, or a faster setting for long pages and quicker navigation.

Cursor Mode

The Cursor Mode section controls cursor behavior, scrolling shortcuts, drag behavior, bottom hot-button areas, and cursor-related AirTouch features.



Modstrip + Trackpad Drag

This toggle enables the quick Modstrip + Trackpad drag path in Cursor Mode.

When enabled, you can hold the Modstrip and move on the trackpad to perform click-and-drag more directly. This is useful for selection, dragging windows, moving objects, and other standard mouse drag actions.

Trackpad + Mod Speed

This dropdown menu decides how to speed up cursor movement in Cursor Mode.

You can move on the trackpad then hold the Modstrip to speed up/down the cursor speed. Recommend lower cursor speed settings with 2x Mod speed settings.

Long Hold Modstrip

This option sets what happens when you perform a long hold on the Modstrip in Cursor Mode. Options are:

- **Off** : Disables Modstrip long-hold behavior for this path.
- **Continuous Scroll & Pan**: Enters a continuous scroll/pan state after the long hold. This is useful for one-handed scrolling and panning. A double tap can be used to exit more quickly.
- **Left Click Hold (Tap to Release)**: Presses and latches the left mouse button after the long hold. The click stays held until you tap to release it. This is useful for drag-and-drop with one finger.
- **Left Click Hold (Hold to Keep)**: Presses and holds the left mouse button only while the hold is maintained. Releasing the hold releases the click. This is useful when you want to hold on left mouse click with one hand and use the other hand for moving

Bottom-Left Button/ Bottom-Right Button

Enables the virtual bottom button area in Cursor Mode.

Double Tap or Long Hold for different actions.

Dual Tap: Track + Track

Enables the two-finger tap on the trackpad shortcut in Cursor Mode.

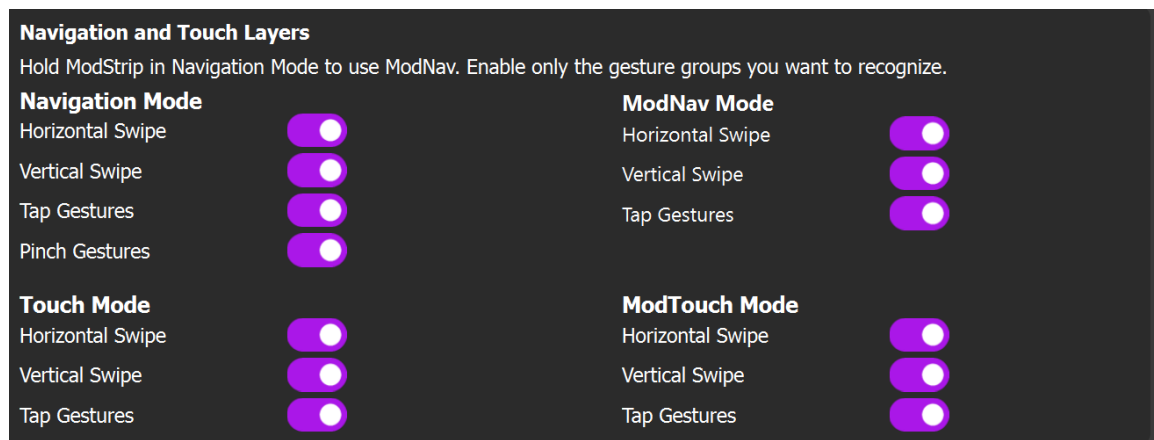
Air Taps in Cursor

Enables Cursor-mode AirTouch taps.

When enabled, you can long hold the trackpad center then air taps to trigger actions. By default, these are commonly used for quick snap actions such as:

x

Navigation / ModNav Mode and Touch / ModTouch Mode Options



Horizontal Swipe

Enables left/right swipe gestures

Vertical Swipe

Enables up/down swipe gestures

Tap Gestures

Enables tap-based gestures

Pinch Gestures (Navigation Mode Only)

This allows pinch-based actions such as zoom in and zoom out when supported by the current profile or assigned actions.

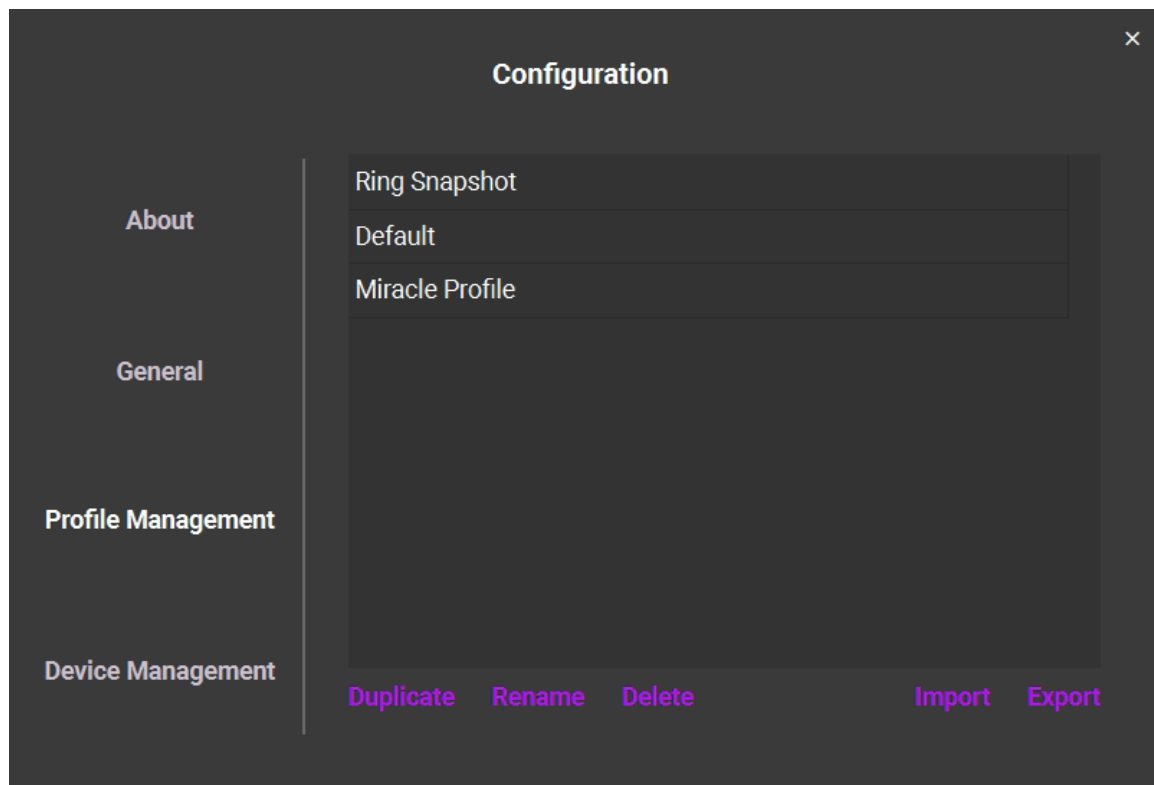
.

Profile Management

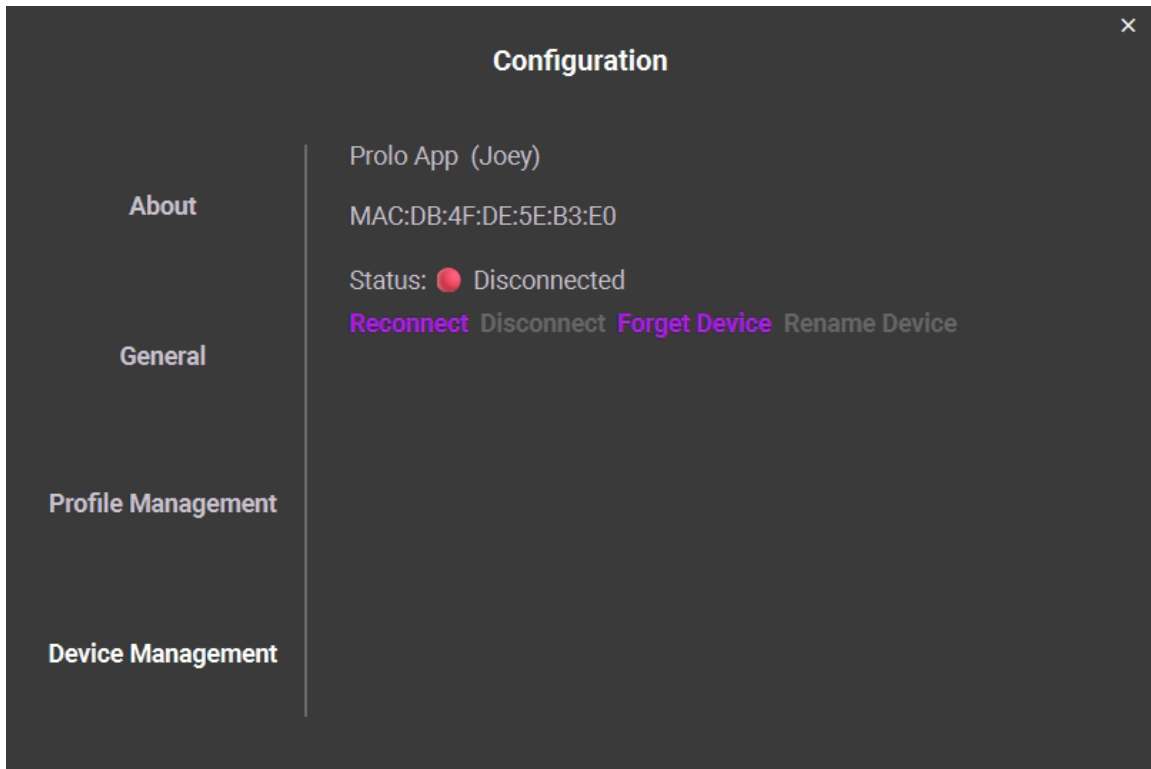
- Create and switch profile on the up-right corner of main dashboard.
- Ring Snapshot and Default are read-only. Duplicate and rename them to create editable profiles.
- Import profiles from local files. Export profile to local files

Note that "On-Ring" and default profiles are read-only and cannot be edited. To make changes, you must create a copy of the profile and edit that version instead. Once your adjustments are complete, you can flash the entire updated profile onto the ring.

This workflow is designed to preserve the device's flash life by preventing excessive writes from live editing. It also ensures a clearer management process, as live edits can sometimes lead to losing previous settings.



Device Management



Go to **Config** → **Device Management** to register a ring with Prolo Studio.

- Only **one ring** can be registered at a time
- The ring must be discoverable by Prolo Studio (Bluetooth active and in the correct status)
- Switch statuses with: **3× Tap + Press & Hold** (Modstrip)

Tip: If the ring doesn't appear in Prolo Studio, confirm Bluetooth is enabled, then toggle statuses again using the 3x Tap + Press & Hold system command.

8. TROUBLESHOOTING & RESET

Common Issues & Fixes

Issue	Likely Cause	What to Try (in order)
No LED lights	Battery fully drained / device shutdown	1) Charge for 10+ minutes using a wall charger and the charging cable (Do not use charging case or power bank or PC USB ports) 2) Try Forced Reboot (see below)
OS can't connect / ring won't pair	Already bonded to another host / OS grabbed it / stale pairing	1) On the host: Forget/Remove all "Prolo Ring" entries 2) Manual Advertise: 2× tap + press & hold (ModStrip) 3) If multi-host: temporarily turn off Bluetooth on the other host and retry
Cursor doesn't move	Wrong mode / ring asleep / palm lock	1) Wake : tap ModStrip → look for LED 2) Cursor Mode: swipe left (ModStrip) 3) Touch trackpad → LED 1 flickers 4) If locked: Unlock (Palm Lock): 1× tap + press & hold
Connection drops / frequent disconnect	Auto-sleep, dongle reconnect behavior, restricted environment	1) Wake by touching trackpad 2) Try reconnect gesture (if enabled in your tutorial/cheat sheet) 3) In Prolo Studio , set Auto Sleep longer or Never Sleep (while connected)
Prolo Studio can't find the ring (but OS can)	Ring is in Device Status (HID mode), not App Status	1) Toggle Device/App Status: 3× tap + press & hold (ModStrip) 2) Open Prolo Studio → Device Management → Connect

Issue	Likely Cause	What to Try (in order)
		3) If still not found: forget pairings + re-advertise
		1) Keep the ring on the charger.
		2) Hold the Trackpad for 15 seconds to enable On-Charger Control .
		3) Check whether normal control works while the ring is still on the charger, such as cursor movement, clicks, gestures, or system commands.
Ring displays LED on charger, but is not responsive when charger is removed	Rare stuck state condition	4) If control works, try 4× Tap + Press & Hold on the Modstrip to shut down the ring.
		5) For best results, when the shutdown animation starts, remove the ring from the charger. Wait a few seconds, then place it back on the charger to boot cleanly.
		6) If the issue continues, use 5× Tap + Press & Hold on the Modstrip to reset the ring and clear all bonds, then pair again..
Repeating LED flashes on boot (error state)	Rare post-OTA / startup error condition	1) Try Forced Reboot 2) If repeating pattern persists, contact support with OS + LED pattern details

Quick Checklist (fast diagnosis)

- **Awake Check:** Tap ModStrip → **any LED on**
- **Cursor Mode Check:** Touch trackpad → **LED 1 flickers**
- **Charging Check:** Connect charger → ring shows **charging animation** (do not rely on case LED)

Key Controls (gestures)

- **Unlock (Palm Lock): 1× tap + press & hold** (ModStrip)
 - **Enter Cursor Mode: Swipe left** (ModStrip)
 - **Manual Advertise / Broadcast: 2× tap + press & hold** (ModStrip)
 - **Toggle Device / App Status: 3× tap + press & hold** (ModStrip)
 - **Charging / Forced Reboot: use the included charger/cable** (see below)
-

Important Notes (Device vs App Status)

- **Device Status** = normal Bluetooth HID use (mouse/gestures on any OS)
 - **App Status** = Prolo Studio connection for configuration **only** (OS input may be blocked so Studio can connect)
-

Forced Reboot (Charging Contact Method)

Use this if the ring is unresponsive, stuck after OTA, or won't reconnect.

1. **Connect the charger/cable** to power.
2. Place the ring on the charging contacts.
3. **Wiggle / rub the ring's charging contacts** against the charger pins a few times to re-trigger charging detection.
4. Watch for the **charging animation / LED response**.
5. Once it responds, wait a few seconds, then try pairing/connecting again.

If the issue repeats often: please contact support.

When to Contact Support

If you still have issues after trying the steps above, email hello@proloing.com and include:

1. **OS + version** (Win10/Win11/macOS/iOS/Android)
2. Exact symptom + **which tutorial step** you tried and where it deviates

3. Whether you're using **built-in Bluetooth** or a **USB dongle/adapter** (model if possible)
 4. Any company/security policies (managed devices, Bluetooth restrictions, etc.)
 5. Best: a short **video clip** + description of any **LED patterns** (especially repeating boot flashes)
-

Important Startup Note

- If the LED shows a repeating error pattern during startup or after several reboot, it indicates an error state. Please contact support and include **your OS + the LED pattern** you're seeing.

9. SPECIFICATIONS

Prolo Ring — Specifications

Feature	Specification
Control Surface	18 × 30 mm capacitive touch
Resolution	1024 × 1792
Sizing	US 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 <i>(fits size 6 with sizing adjuster)</i>
Weight	4.1 g – 5.2 g
Width	23 mm
Thickness	2.9 mm
Color Options	Champagne Gold, Future Silver, Carbon Black, Rose Gold
Materials	Biocompatible PC shell
IC	High-precision touch sensor, 6-axis motion sensor, BLE SoC
Battery Life	Up to 10 hours (typical use)
Charge Time	< 30 min
Compatibility	Computers / Smartphones / Tablets (Windows / macOS / Linux) Certain XR Glasses (Rokid, INMO)

Prolo Ring Case Charger — Specifications

Feature	Specification
Battery Capacity	Li-Po 800 mAh
Extended Use	Up to 30 days of recharges
Charging Method	USB Type-C
Charging Time	~120 minutes (full charge)
Charging Cycles	500 cycles

10. Installing the Size Reducer Shim (Fit Adjustment)

The size reducer shim helps tighten the fit if you are **between sizes** and chose the larger size for comfort

What you need

- Size reducer shim strip (included)
- Scissors
- (Optional) ruler

Recommended placement

Place the shim **behind the touchpad area** (the inside wall opposite the charging port opening).

This improves stability while keeping the charging contacts clear.

Step-by-step

1. **Power off or remove the ring** from your finger.
2. **Cut the shim to length:** start with **35 mm**.
 - If you need a tighter fit later, you can replace it with a slightly longer or thicker shim.

3. **Clean and dry** the inside of the ring (oil/sweat can weaken adhesion).
4. **Peel the backing** off the adhesive side of the shim.
5. **Align and stick** the shim **inside the ring behind the touchpad area**.
 - Press firmly for **10–15 seconds** along the full length.
6. **Test the fit** by wearing the ring for a few minutes and doing a few gestures.
7. If the fit is still loose, remove and repeat with a slightly longer shim or a second layer.



Tips

- Do **not** cover the **charging contacts** or the **charging-port opening**.
- If the ring feels too tight, remove the shim and trim it shorter before reinstalling.
- For best results, do a short “test wear” (5–10 minutes) before finalizing.

11. SUPPORT & WARRANTY

- Avoid exposure to high humidity or direct heat while charging.
- Avoid wearing for longer periods of time or overnight.
- Do not rinse or immerse in water.

- Use only the official charging accessories.
- For troubleshooting and updates, visit proloring.com/pages/faq.
- Contact us at **hello@proloring.com** for warranty or repair inquiries.

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