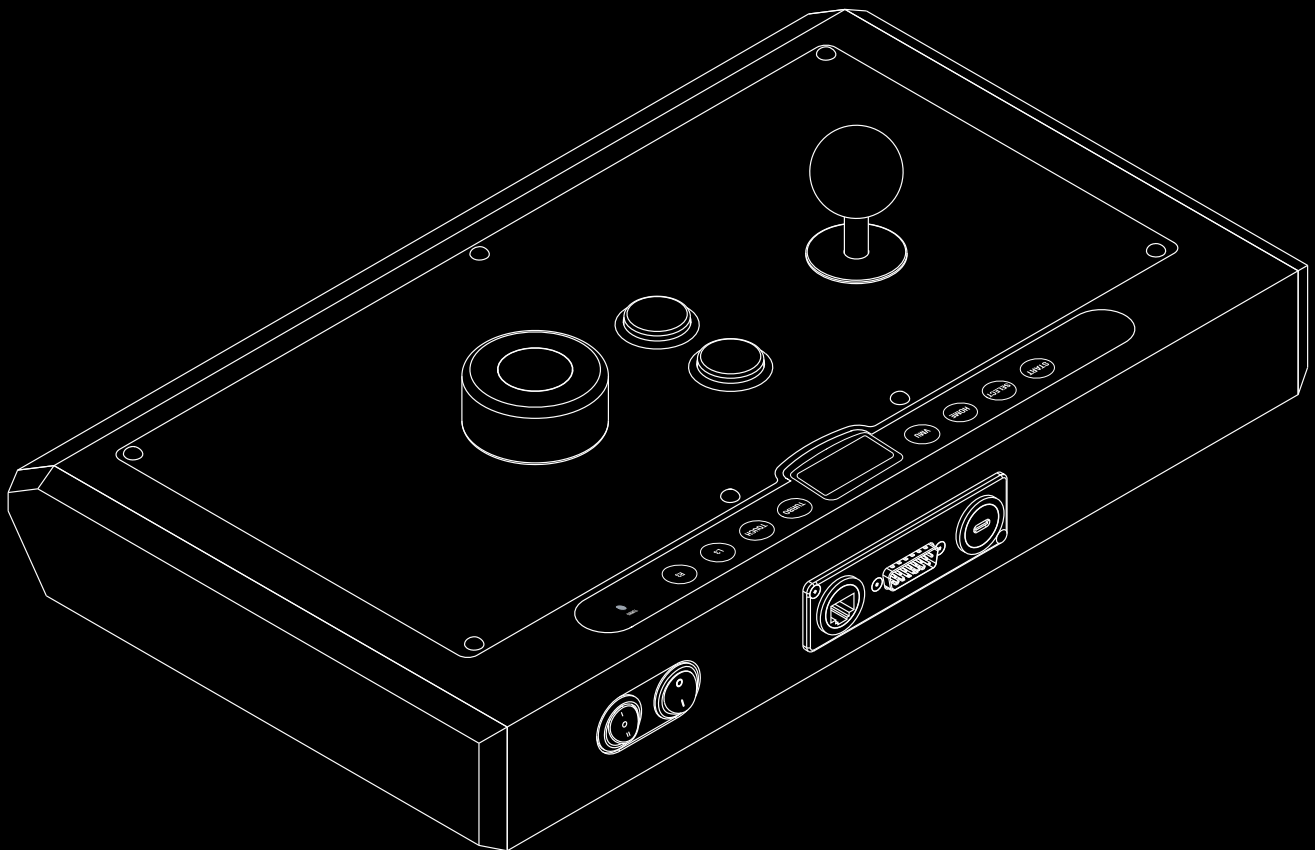
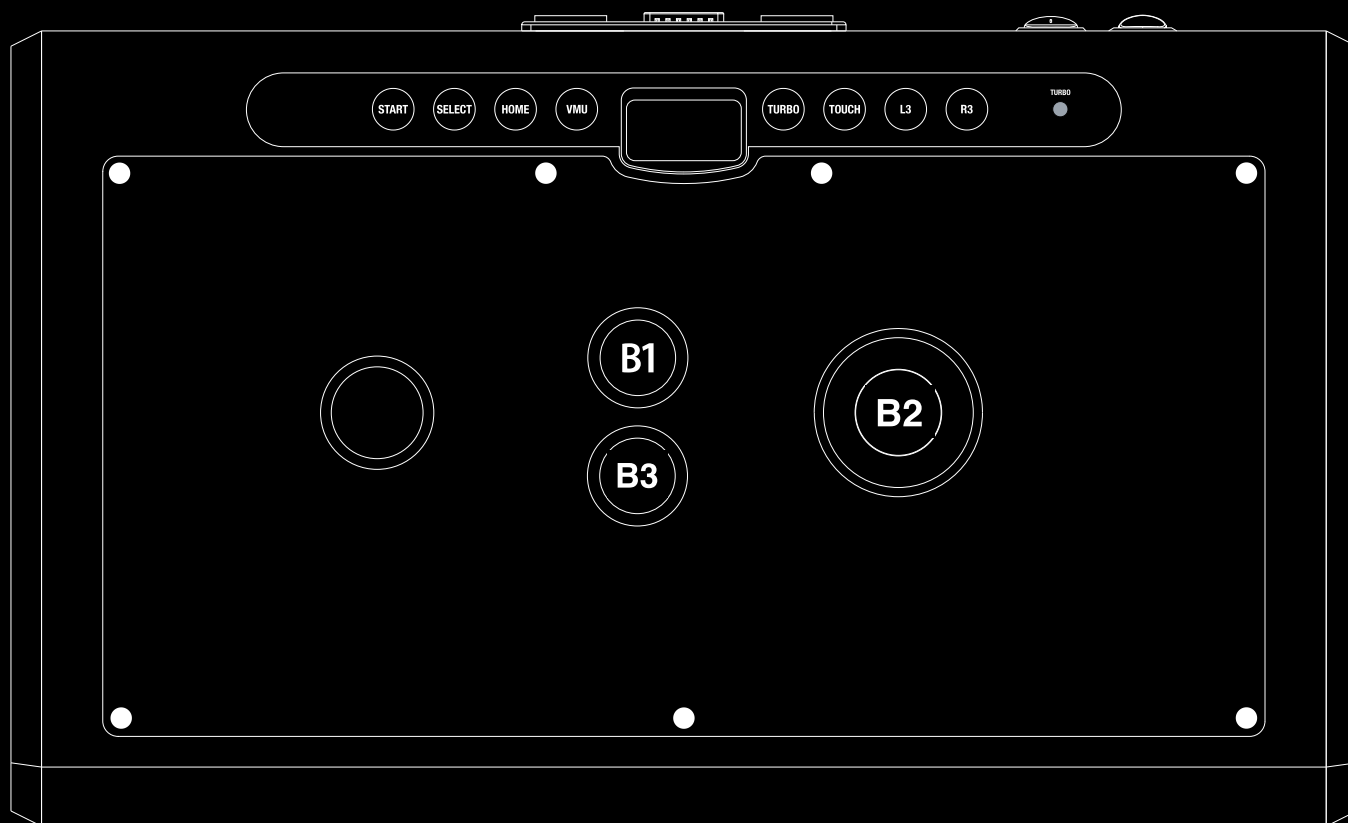




KRAKEN SPINNER USER GUIDE



Device Layout



Control Panel

- **Spinner knob** — the main control. It is also a **push button (B2)**: press the knob down to click.
- **Joystick** — standard digital joystick input.
- **B1 / B3** — two extra action buttons.

Top Bar Buttons

- **START · SELECT · HOME** — standard controller buttons
- **TOUCH** — acts as the arcade **SERVICE** button
- **L3** — acts as the arcade **TEST** button
- **R3** — the **SPEED** button (changes speed mode)
- VMU and TURBO are not used on the Kraken Spinner.

Getting Started

The Kraken Spinner connects over USB and identifies itself as a game controller with a high-resolution spinner axis — **no drivers or software required**. It is ready to play the moment you plug it in; you do not have to wait for the intro screen. On power-up the OLED shows the TR logo for about 4 seconds, then fades into the main screen.

All your settings — speed mode, custom speed value and animation style — are stored inside the device and restored automatically at every power-up.

Main Screen & Speed Modes



Main screen — shown during normal play.

Speed mode. SPEED A, SPEED B, SPEED C — or SPEED 1–100 when a custom speed is active.

Kraken flame. A live fire effect; the lettering burns and flickers continuously.

Live wheel. Rotates in real time with the knob. In mode A it turns 1:1 with your hand; in modes B and C it turns at 1.5× / 2× speed, so you can see the sensitivity difference.

Speed Modes

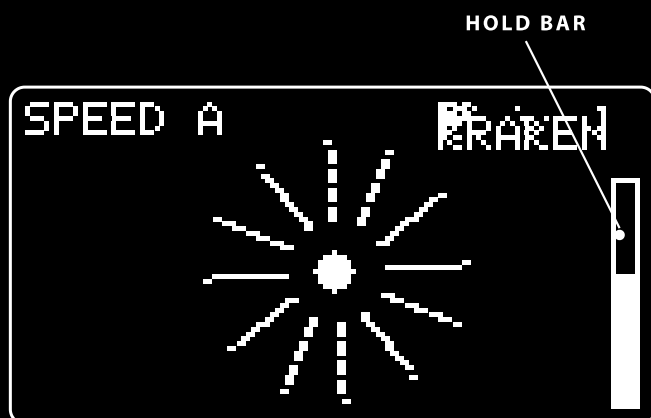
Three factory speed modes plus a fully adjustable custom mode. Press **R3** (the **SPEED** button) to cycle: **A** → **B** → **C** → **CUSTOM** → **A** ...

MODE	SENSITIVITY	DESCRIPTION
A	1.0×	Precision — fine aiming and slow, accurate control.
B	1.5×	Balanced — the all-round setting for most games.
C	2.0×	Fast — quick response for fast-paced action.
CUSTOM	0.03× – 3.00×	Your own setting, tuned on a 1–100 scale in the Speed Tuning menu.

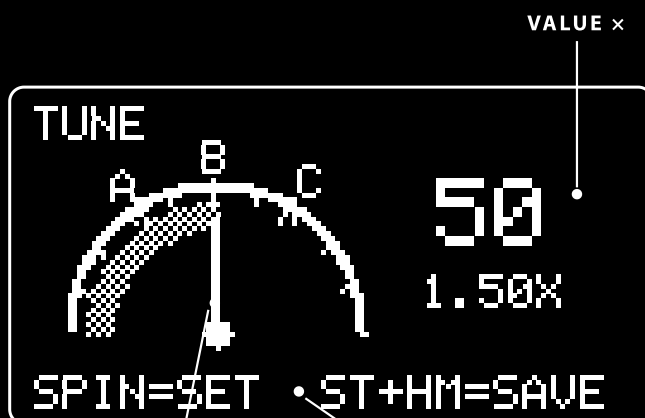
The active mode is always shown in the top-left corner of the display and is remembered after power-off.

Speed Tuning Menu

Dial in your own sensitivity anywhere between $0.03\times$ and $3.00\times$ on a 1–100 scale — the spinner knob itself is the tuning dial.



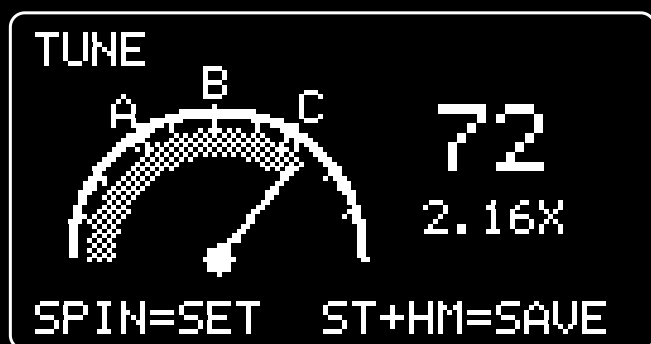
Opening the menu. Hold **START + HOME**; the right-edge bar fills for 2 seconds. Keep holding until it is full.



NEEDLE
The tuning gauge — needle, current value with its multiplier, key hints.

How to tune

- 1 Hold **START + HOME** for **2 seconds** — the right-edge bar fills, then the gauge appears.
- 2 Turn the **spinner knob** to move the needle. About half a turn sweeps the whole 1–100 scale.
- 3 The **A / B / C** marks show where the factory modes sit (33 / 50 / 67). Press **R3** to make the needle **jump directly to A → B → C** and fine-tune from a familiar feel.
- 4 The large number is your value; the resulting multiplier is shown below it (e.g. $50 = 1.50\times$).
- 5 Press **START + HOME** briefly to **save and exit**. Your value becomes the active **CUSTOM** mode immediately and is stored permanently.



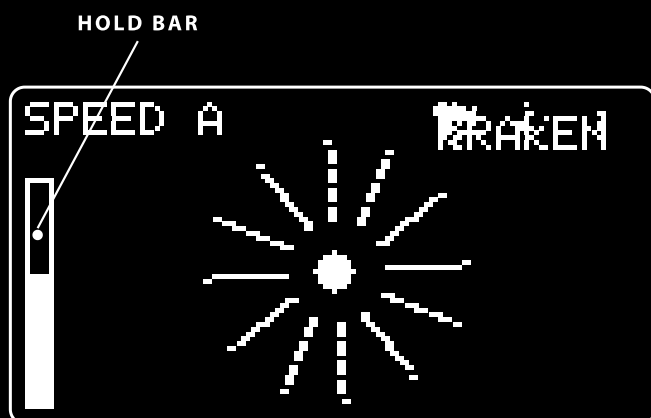
Example: value $72 = 2.16\times$ — between factory mode C and maximum.

After saving, the main screen shows **SPEED 72** (your value) instead of a letter. The **R3** button keeps cycling **A → B → C → CUSTOM**, so your custom setting is never lost when you switch modes.

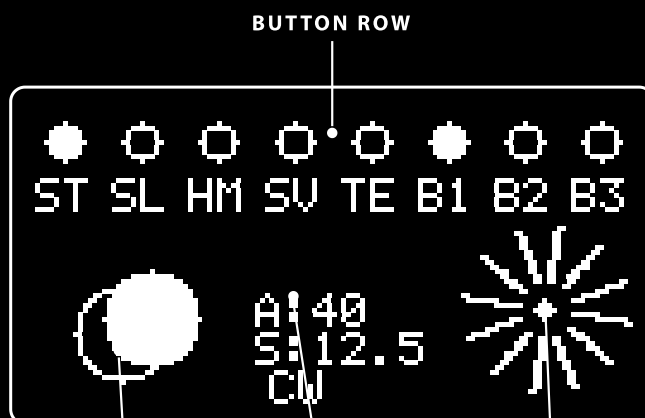
Changes are written to memory about 2 seconds after you stop adjusting. Wait a moment before unplugging the device.

Test Screen

The built-in test screen shows the live state of every control — useful for verifying buttons and wiring, or simply confirming everything works.



Opening the test screen. Hold **START + SELECT**; the left-edge bar fills for 2 seconds.



JOYSTICK
Test screen with **START** and **B1** pressed and the stick deflected up-right.

READOUT

WHEEL

Button row. One circle per button — **ST** Start, **SL** Select, **HM** Home, **SV** Service (TOUCH), **TE** Test (L3), **B1–B3** action buttons (**B2** = pressing the spinner knob). A circle fills solid while its button is held.

Joystick. The solid dot glides smoothly in the direction you push and springs back to center on release — full 360° movement.

Readout. **A**: wheel angle in degrees, **S**: speed, and direction — **CW**, **CCW** or **STP** (stopped).

Wheel. A small version of the main-screen animation, turning live with the knob.

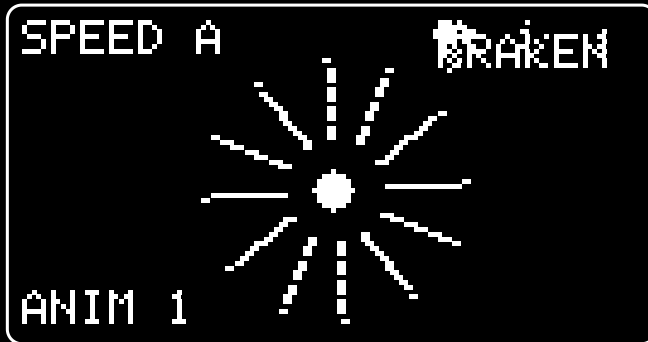
Entering and leaving

ACTION	KEYS
Enter test screen	Hold START + SELECT for 2 seconds (left-edge bar fills)
Exit test screen	Press START + SELECT once — exits instantly

Test mode is shown only on the OLED. While this screen is open, controller and spinner output to the connected system is paused. Normal output resumes as soon as you exit the test screen.

Animation Styles

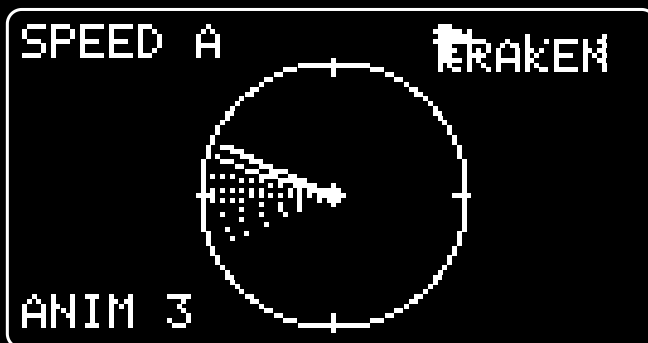
The spinning wheel on the display comes in four styles. To switch, hold **START** and press the spinner knob down (B2) for 4 seconds — the next style loads and its number (ANIM 1–4) is shown briefly. The style applies to both the main and test screens and is saved automatically.



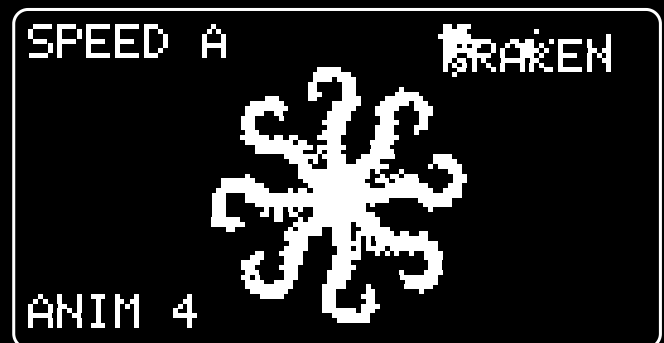
ANIM 1 — Classic. Twelve radial spokes, the traditional arcade wheel. (Default)



ANIM 2 — Vortex. Three spiral arms swirling around the center.



ANIM 3 — Radar. A sweeping radar beam with a fading trail.



ANIM 4 — Kraken. The octopus itself, tentacles and all, rotating with your hand.

Settings Memory

The Kraken Spinner remembers your setup without any batteries:

- **Speed mode** (A / B / C / CUSTOM) — restored on power-up
- **Custom speed value** (1–100) — kept even while you use modes A–C
- **Animation style** (1–4) — restored on power-up

Settings are written to permanent memory about 2 seconds after a change, once the spinner is at rest. Unplug any time after that — everything will be exactly as you left it.

Firmware Update

Firmware updates are delivered as a single **.uf2** file from **trflightstick.com**. Installing one takes under a minute and needs no software — the device appears as a small USB drive and you simply copy the file onto it.

Update steps

- 1 With the spinner connected and running, hold **SELECT + HOME** for **3 seconds**. The screen switches off and the device restarts in update mode.
- 2 A USB drive named **RPI-RP2** appears on your computer (like a memory stick).
- 3 Drag the **.uf2** file onto the **RPI-RP2** drive.
- 4 Done — as soon as the copy finishes, the device restarts by itself with the new firmware and the TR logo appears. Your saved settings are kept.

Alternative: if the device is unplugged, hold **SELECT + HOME** *while plugging in the USB cable* — it starts directly in update mode.

Entered update mode by accident? Unplug the USB cable and reconnect it. The device starts normally with its current firmware. No update is applied unless a valid **.uf2** file is copied to the RPI-RP2 drive.

NOTE: Only install **.uf2** files supplied by TR Fightstick. Do not unplug the cable while the file is copying.

Troubleshooting

PROBLEM	SOLUTION
Spinner feels too slow / too fast	Check the mode indicator (top-left of the screen). Press R3 to change modes, or set your own value in the tuning menu.
Device shows up as a USB drive named RPI-RP2	Update mode was triggered (SELECT + HOME held 3 s). Unplug and reconnect — it will start normally.
A setting was lost after unplugging	Settings save ~2 seconds after a change while the knob is at rest. Repeat the change and wait a moment before unplugging.
A button seems dead	Open the test screen and press the button — if its circle does not fill, contact support.
Game doesn't react to the spinner	The spinner axis appears as mouse / trackball movement. In the game or emulator, select mouse / trackball / dial as the input for the spinner control.

Quick Reference — All Controls

KEYS	HOLD	FUNCTION
R3 (SPEED)	tap	Cycle speed mode: A → B → C → CUSTOM
START + HOME	2 s	Open the Speed Tuning menu (right-edge bar fills)
START + HOME	tap	<i>In the tuning menu:</i> save value and exit — CUSTOM mode becomes active
R3 (SPEED)	tap	<i>In the tuning menu:</i> jump the needle to the A / B / C positions
START + SELECT	2 s	Open the Test Screen (left-edge bar fills)
START + SELECT	tap	<i>In the test screen:</i> exit instantly
START + KNOB PRESS	4 s	Switch to the next animation style (ANIM 1–4)
SELECT + HOME	3 s	Enter firmware update mode (RPI-RP2 drive appears)
SELECT + HOME while plugging in USB	—	Start directly in firmware update mode

All settings — speed mode, custom value and animation style — are saved automatically and restored at every power-up.

Specifications

Connection	USB 2.0, plug & play (no drivers required)
Reports as	Game controller (buttons + joystick) and high-resolution spinner axis
Display	128 × 64 OLED, live status and animations
Speed modes	A (1.0×), B (1.5×), C (2.0×), Custom (0.03× – 3.00× in 100 steps)
Settings memory	Internal, permanent — no battery
Firmware updates	USB drag-and-drop (.uf2), from trflightstick.com

Connecting Kraken to Octopus

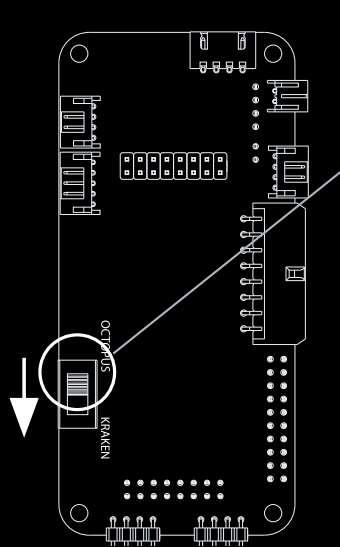
WIRING GUIDE - START HERE

INSTALLATION OVERVIEW

BEFORE YOU BEGIN

Use the following wiring references to connect the Kraken Spinner to the Octopus. Keep USB power disconnected while installing or moving any connector.

REQUIRED FINAL STEP - SET THE EXTENDER PCB SWITCH



SELECTOR POSITION

OCTOPUS



KRAKEN

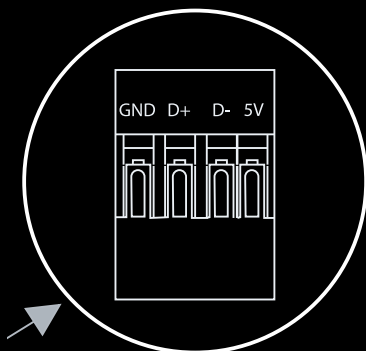
After all Kraken cables are connected, slide the selector on the Extender PCB from OCTOPUS to KRAKEN before reconnecting USB power.

PICO OPERATION

The Pico will not operate while the selector remains in the OCTOPUS position.

Power Connector Orientation

SEE WIRING REFERENCE 08 / 10



LOCKING-WINDOW VIEW

THIS SIDE UP

Insert the 4-pin Dupont housing with the terminal locking windows facing upward, exactly as shown. Do not reverse the housing.

LOCKING-WINDOW VIEW

GND | D+ | D- | 5V

WIRE-ENTRY VIEW

5V | D- | D+ | GND

Verify wire colors on the Power Wire page before power-up.

SAFE CONNECTION ORDER



Mechanical Installation

QUICK INSTALLATION GUIDE / PAGE 10

INSTALLING THE KRAKEN LAYOUT ON OCTOPUS

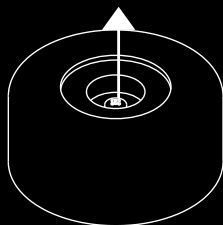
KEEP USB POWER DISCONNECTED

Remove the existing Octopus layout first. Find the removal video on the TR Fight Stick YouTube channel. Keep USB power disconnected during all mechanical and wiring work.

WATCH ON YOUTUBE | youtube.com/@trfightstick

1 REMOVE THE CENTER SCREW

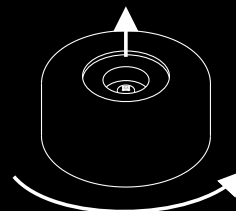
Unscrew and remove it. Keep it for reassembly.



Keep the screw. It will be reinstalled in step 6.

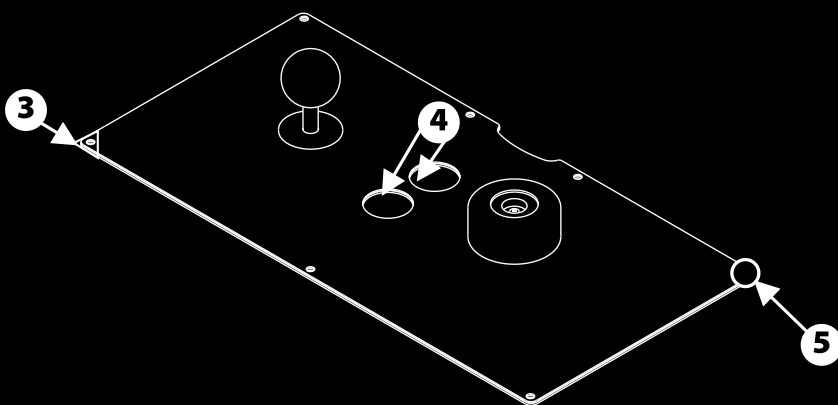
2 UNTHREAD AND REMOVE THE KNOB

Rotate to loosen, then lift the knob off. Do not force it sideways.



Rotate first. Once unthreaded, lift the knob vertically.

LAYOUT PREPARATION AND MOUNTING



3 REMOVE THE PROTECTIVE FILM

Peel the film from the Glanova Glass before mounting.

4 INSTALL OPTIONAL BUTTONS

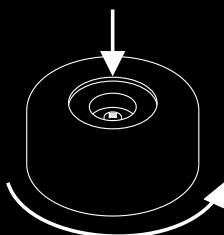
Fit the 30 mm buttons now, if desired. Buttons are not included.

5 POSITION AND SECURE

Place the Kraken layout on the Octopus and install the mounting screws.

6 REINSTALL THE KNOB AND SCREW

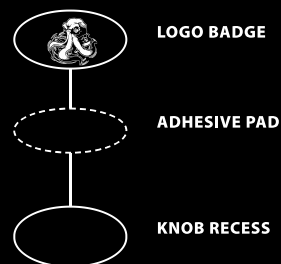
Lower the knob onto the shaft, thread it into place, then reinstall the center screw. Tighten securely without overtightening.



Final mechanical check: the knob should rotate freely after tightening.

7 INSTALL THE LOGO BADGE

Place the included double-sided adhesive pad in the knob recess, then press the round logo badge over the screw. Center the badge before pressing firmly.



Finish: the badge covers and protects the center screw.

IMPORTANT POWER-UP ORDER REVIEW PAGE 9

Complete all wiring with USB power disconnected. Verify the power connector housing orientation and move the Extender PCB selector from OCTOPUS to KRAKEN before reconnecting USB power.

USB OFF → CONNECT CABLES → VERIFY POWER HOUSING → SET KRAKEN → POWER ON

OLED Wire

WIRING REFERENCE 01 / 10

OLED PCB TO KRAKEN INTERFACE PCB

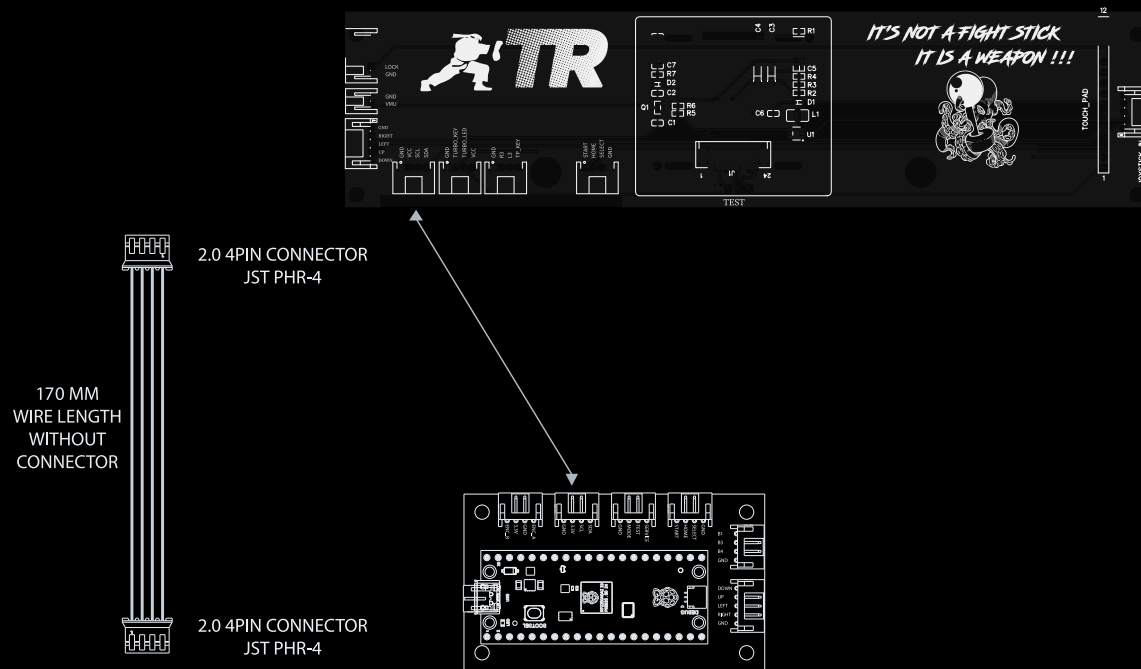
CONNECTORS

2.0 mm JST PHR-4 at both ends

CUT LENGTH

170 mm

Connection Diagram



SIGNAL ORDER AS SHOWN GND | VCC | SCL | SDA

Length convention. The 150 mm dimension is the wire length only; connector housings are excluded.

L3-R3-TP Wire

WIRING REFERENCE 02 / 10

OLED PCB TO KRAKEN INTERFACE PCB

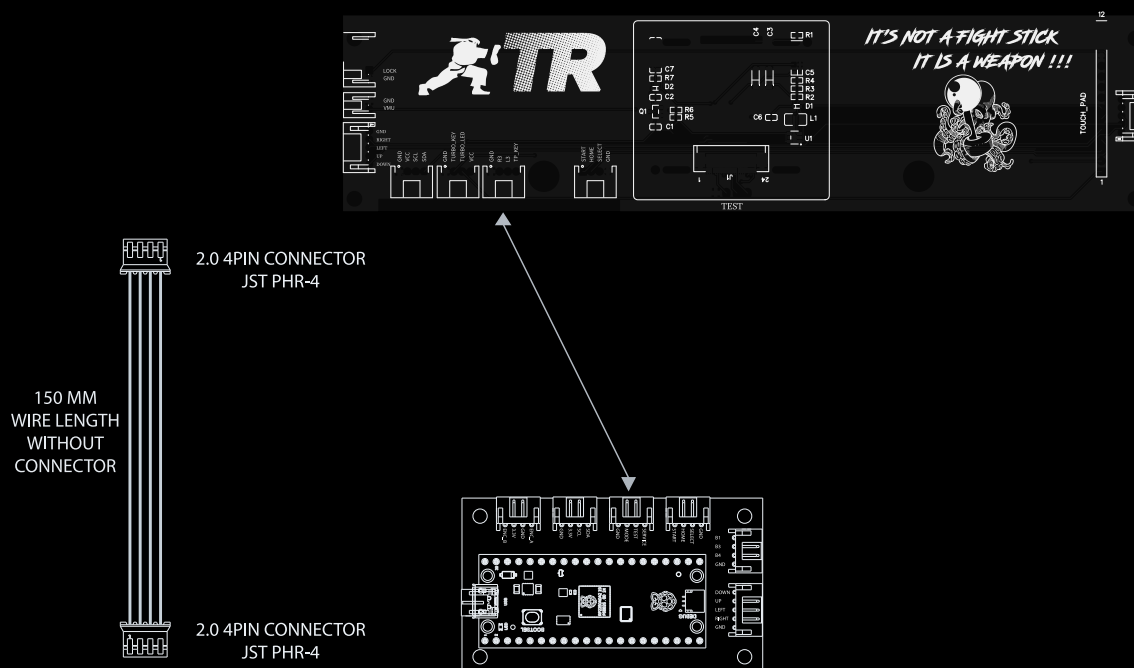
CONNECTORS

2.0 mm JST PHR-4 at both ends

CUT LENGTH

150 mm

Connection Diagram



SIGNAL ORDER AS SHOWN **GND** | **R3** | **L3** | **TP_KEY**

Length convention. The 150 mm dimension is the wire length only; connector housings are excluded.



Start-Home-Select Wire

WIRING REFERENCE 03 / 10

OLED PCB TO KRAKEN INTERFACE PCB

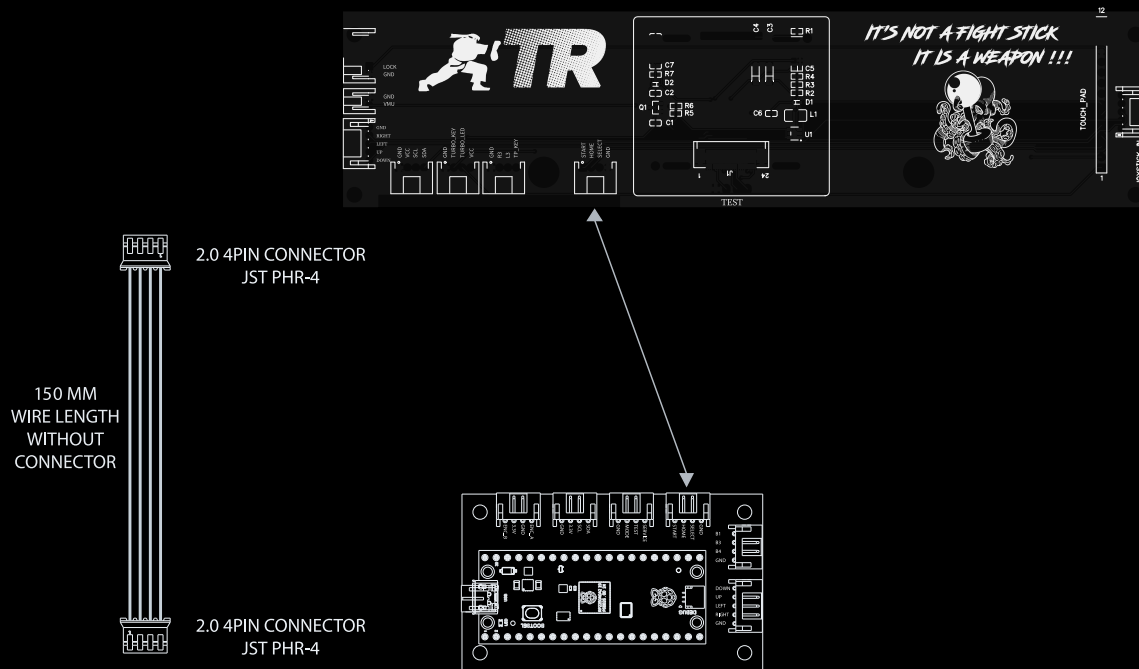
CONNECTORS

2.0 mm JST PHR-4 at both ends

CUT LENGTH

150 mm

Connection Diagram



SIGNAL ORDER AS SHOWN START | HOME | SELECT | GND

Length convention. The 170 mm dimension is the wire length only; connector housings are excluded.

Joystick Wire

WIRING REFERENCE 04 / 10

KRAKEN INTERFACE PCB TO JOYSTICK

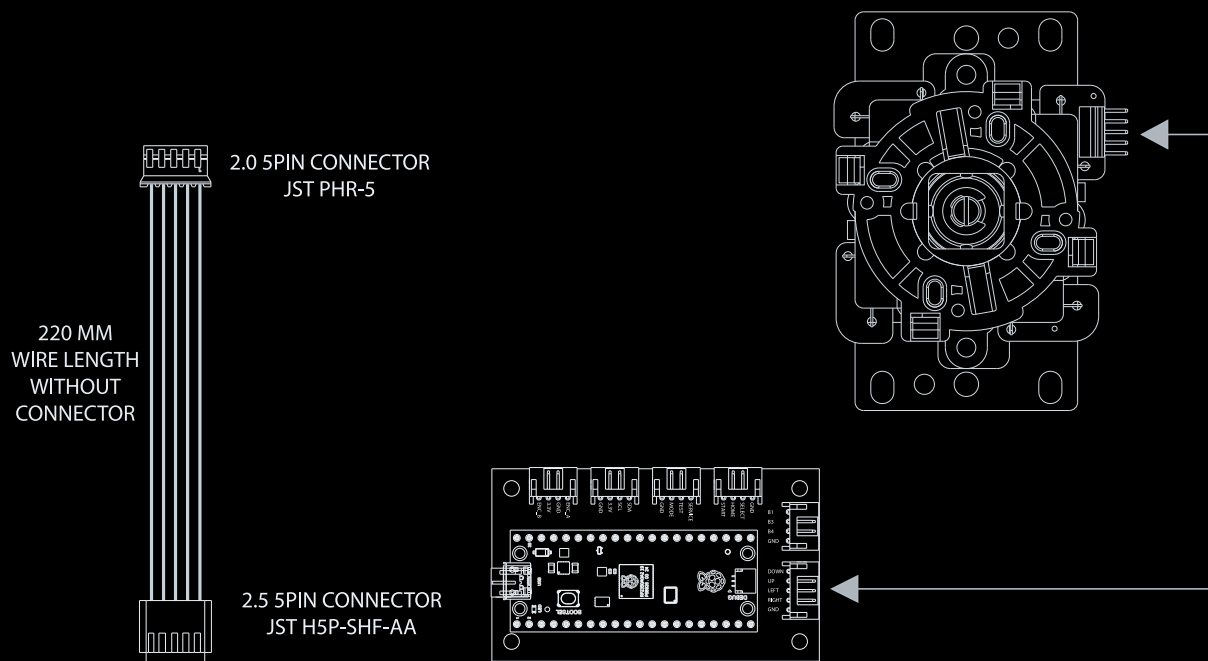
END A

2.0 mm 5-pin JST PHR-5

CUT LENGTH

220 mm

Connection Diagram



CONNECTION	CONNECTOR
Kraken Interface PCB end	2.0 mm 5-pin JST PHR-5
Joystick end	2.5 mm 5-pin JST H5P-SHF-AA

Length convention. The 220 mm dimension is the wire length only; connector housings are excluded. Follow the connector orientation shown in the drawing.

Spinner Wire

WIRING REFERENCE 05 / 10

KRAKEN INTERFACE PCB TO SPINNER SENSOR PCB

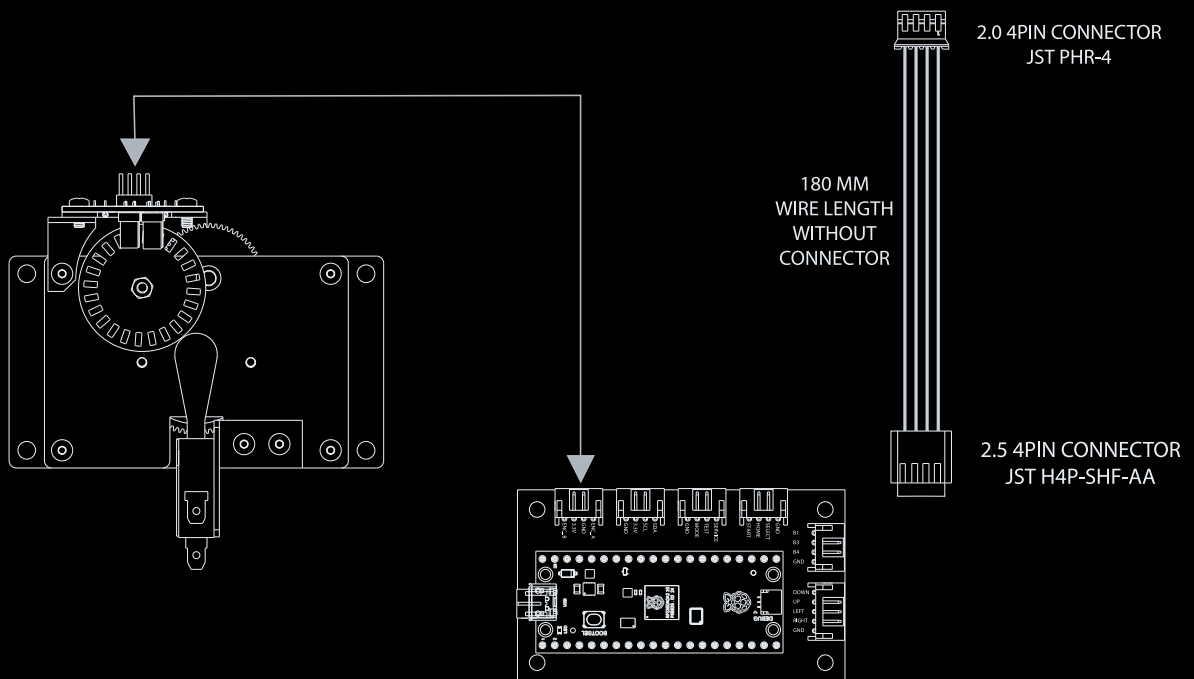
END A

2.0 mm 4-pin JST PHR-4

CUT LENGTH

180 mm

Connection Diagram



CONNECTION	CONNECTOR
Kraken Interface PCB end	2.0 mm 4-pin JST PHR-4
Spinner end	2.5 mm 4-pin JST H4P-SHF-AA

Length convention. The 180 mm dimension is the wire length only; connector housings are excluded. Follow the connector orientation shown in the drawing.

Buttons Wire

KRAKEN INTERFACE PCB TO BUTTONS

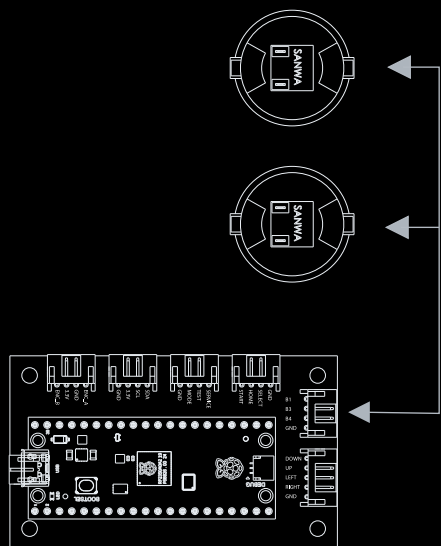
PCB CONNECTOR

2.0 mm 4-pin JST PHR-4

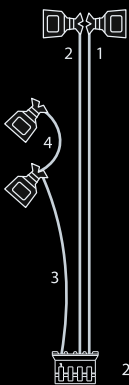
BUTTON ENDS

2.8 mm angled terminals with rubber

Connection Diagram



2.8 Terminal Angled
with
RUBBER



ALL THE LENGTHS ARE
WITHOUT TERMINALS AND
CONNECTORS

- 1 - 110 mm
- 2 - 70 mm
- 3 - 75 mm
- 4 - 70 mm

2.0 4PIN CONNECTOR
JST PHR-4

CONDUCTOR	CUT LENGTH
1	110 mm
2	70 mm
3	75 mm
4	70 mm

Numbering. Conductor numbers 1-4 correspond to the labels beside the terminals in the connection drawing.

All listed lengths exclude terminals and connector housings.

Switch Wire

WIRING REFERENCE 07 / 10

KRAKEN INTERFACE PCB TO SWITCH

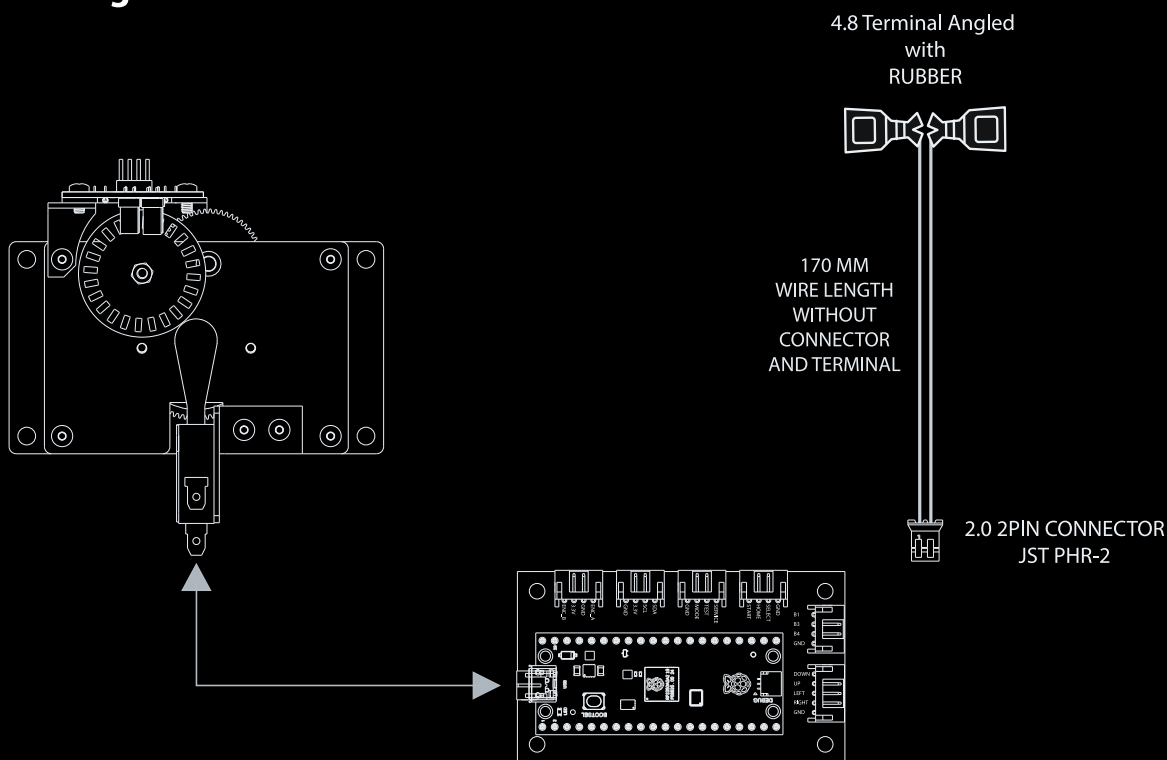
PCB CONNECTOR

2.0 mm 2-pin JST PHR-2

CUT LENGTH

170 mm

Connection Diagram



CONNECTION

TERMINATION

Kraken Interface PCB end

2.0 mm 2-pin JST PHR-2

Switch end

4.8 mm angled terminal with rubber

Length convention. The 170 mm dimension excludes both the connector housing and the switch terminal.

PICO PCB TO EXTENDER PCB

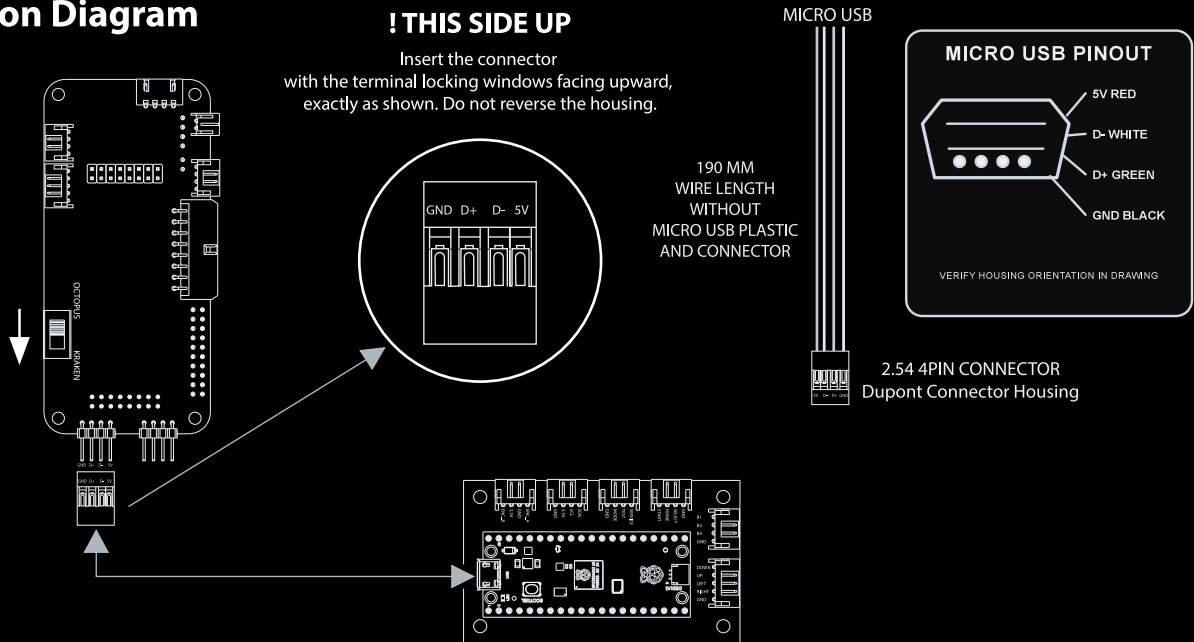
CONNECTION

Micro USB to 2.54 mm 4-pin Dupont housing

CUT LENGTH

190 mm

Connection Diagram



SIGNAL	USB WIRE COLOR
5V	Red
D-	White
D+	Green
GND	Black

HOUSING ORDER 5V | D- | D+ | GND

Length convention. The 190 mm dimension excludes the Micro USB plastic shell and the connector housing.

Spinner Arcade Wire

CPS1 ORIGINAL PCB TO SPINNER SENSOR PCB

MAIN CONNECTOR

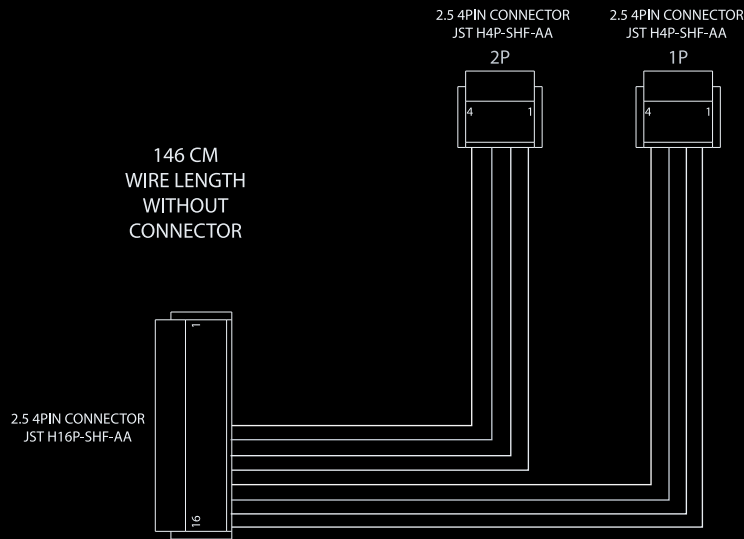
2.5 mm 16-pin JST H16P-SHF-AA

CUT LENGTH

146 cm

Connection Diagram

- 1. NC
- 2. NC
- 3. NC
- 4. NC
- 5. NC
- 6. NC
- 7. NC
- 8. NC
- 9. 2PB (YELLOW)
- 10.VCC (RED)
- 11.GND (BLACK)
- 12.2PA (WHITE)
- 13.1PB (YELLOW)
- 14.VCC (RED)
- 15.GND (BLACK)
- 16.1PA (WHITE)



MAIN PIN	SIGNAL	WIRE COLOR	BRANCH / PIN
1-8	NC	-	Not connected
9	2PB	Yellow	2P / pin 4
10	VCC	Red	2P / pin 3
11	GND	Black	2P / pin 2
12	2PA	White	2P / pin 1
13	1PB	Yellow	1P / pin 4
14	VCC	Red	1P / pin 3
15	GND	Black	1P / pin 2
16	1PA	White	1P / pin 1

Both 1P and 2P branches use 2.5 mm 4-pin JST H4P-SHF-AA connectors. The 146 cm length excludes connector housings.

Switch Arcade Wire

WIRING REFERENCE 10 / 10

SPINNER SWITCH TO ARCADE CONTROL PANEL

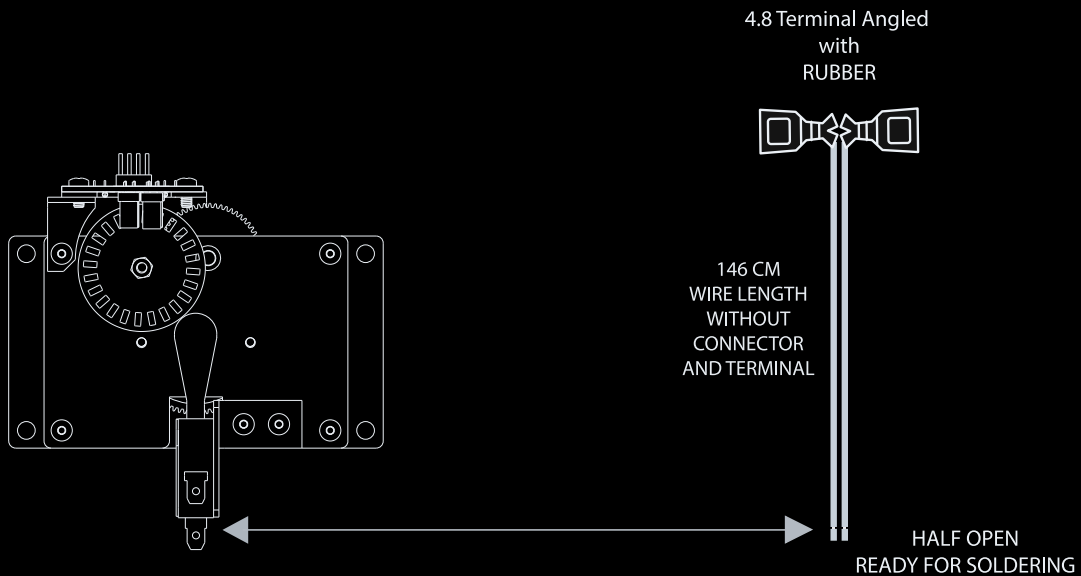
SWITCH END

4.8 mm angled terminal with rubber

CUT LENGTH

146 cm

Connection Diagram



END	TERMINATION
Spinner switch	4.8 mm angled terminal with rubber
Arcade control panel	Half open, ready for soldering

Length convention. The 146 cm dimension excludes the connector and terminal.