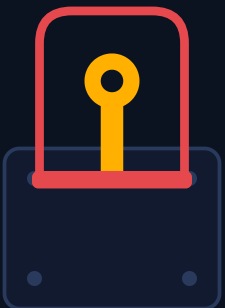


THE BREAKER

**My AI agents work
while I sleep.**

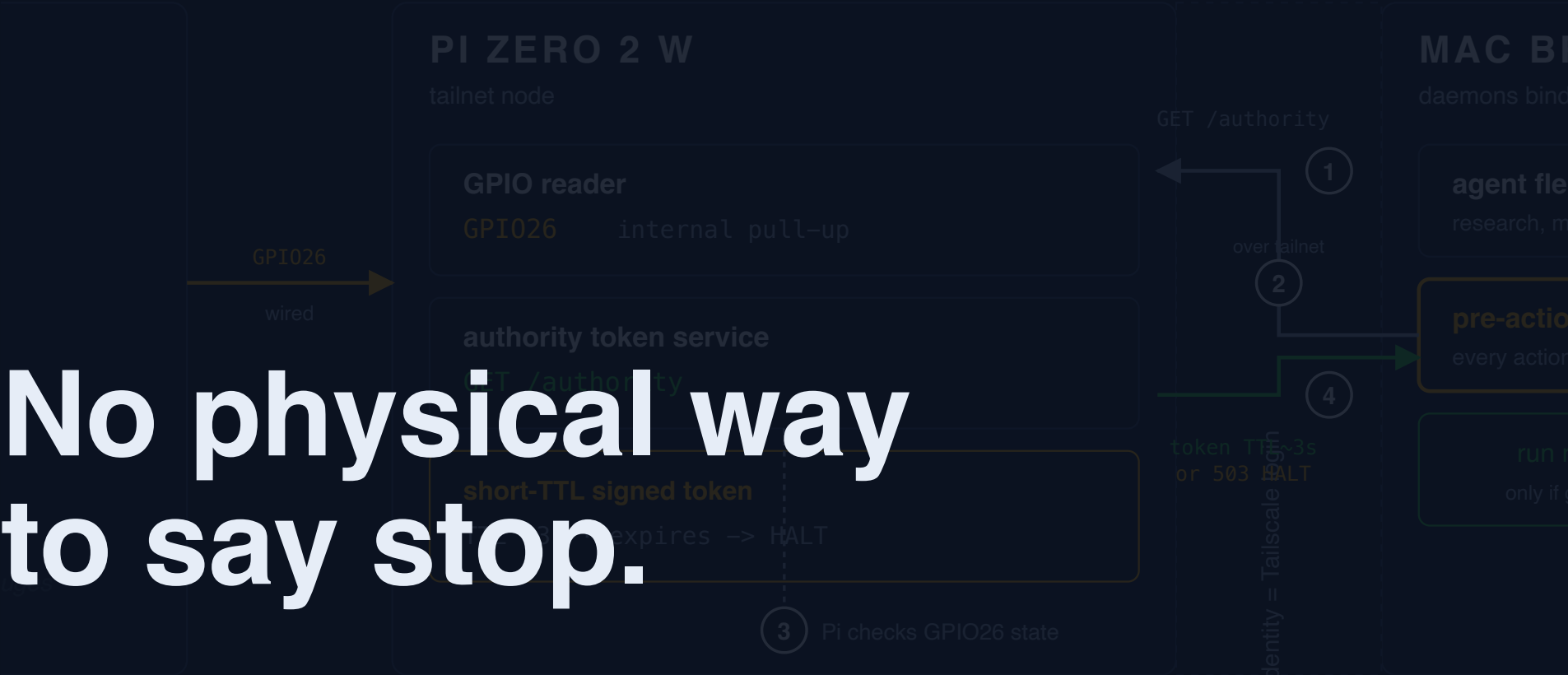
**So I designed them a
physical kill switch.**



THE BREAKER
design reveal



CREATING AN AUTONOMOUS AGENT FLEET



No physical way
to say stop.

My agents run unattended on my Mac. Research,
monitoring, busywork. If an agent misbehaves, yelling
at the screen does nothing.

	RESULT
	HALT
	ACT
	HALT
	HALT
	HALT

DEAD-MAN PRINCIPLE

The agents do not need to
to stop.

They lose the ability to **prove**
they may continue.

The default state is stop.

Dead-man semantics: every agent must hold a permission token that expires every **3 seconds**. No fresh token, no action.

Switch to Pi to token to agents.

THE BREAKER

HARDWARE DEAD-MAN SWITCH GATING AN AUTONOMOUS AGENT FLEET

SAFE STATE = HALT
fail safe, never fail open



FAIL-SAFE TRUTH TABLE

CONDITION	RESULT
switch OPEN	HALT
switch CLOSED + fresh token	ACT
Pi process dead (no token to fetch)	HALT
network partition (fetch fails)	HALT
token expired / clock skew	HALT

DEAD-MAN PRINCIPLE

The agents do not need to be told to stop.

They lose the ability to **prove** they may continue.

One guarded switch feeds a Raspberry Pi that issues 3-second tokens over my private network.

Every failure lands on HALT.

Switch open

HALT

Pi process dead

HALT

Network gone

HALT

Token expired

HALT

Switch closed + fresh token

ACT

Two wires make the safety.

GPI026 to ground. Open circuit reads **HALT**. 5V never touches a GPIO pin.

PHASE 1 - KILL SWITCH CORE

1. Guarded halt toggle switch

GPI026
phys 37

GND
phys 39

GUARDED TOGGLE (SPST)
lug A lug B

Internal 3.3V pull-up enabled in SOFTWARE | NO external resistor
Open / broken circuit = HIGH = HALT the agent fleet

2. Status LED (armed indicator)

GPI021
phys 40

470R

5mm red LED

GND
phys any

GPI021 -> 470R -> LED anode | cathode -> GND

3. Relay module

OPTIONAL

GPI020
phys 38

5V
phys 2

GND
phys 6

5V RELAY MODULE
IN VCC GND

GPI020 -> IN | 5V -> VCC | GND -> GND

400-point solderless breadboard (schematic)

Pi Zero 2 W
40-pin header (2x20)

3V3	1	2	5V
GPI02	3	4	5V
GPI03	5	6	GND
GPI04	7	8	GPI014
GND	9	10	GPI015
GPI017	11	12	GPI018
GPI027	13	14	GND
GPI022	15	16	GPI023
3V3	17	18	GPI024
GPI010	19	20	GND
GPI09	21	22	GPI025
GPI011	23	24	GPI08
GND	25	26	GPI07
GPI00	27	28	GPI01
GPI05	29	30	GND
GPI06	31	32	GPI012
GPI013	33	34	GND
GPI019	35	36	GPI016
GPI026	37	38	GPI020
GND	39	40	GPI021

highlighted = used pins

WIRE LEGEND

5V power

GND (black)

GPIO / 3.3V logic

PWM signal

SYMBOLS

470R/1k/330R = resistor

100uF = electrolytic cap

triangle+bar = LED

circle+needle = DROK meter

Never 5V -> GPIO

PHASE 2

4. Anal

GPI01
phys 32

GPI01
phys 32

GPI01
phys 12

GPIO ->

5. RGE

GPI05
phys 29

GPI06
phys 32

GPI02
phys 12

one 330R

6. Ever

GPI02
phys 12

5V
phys 4

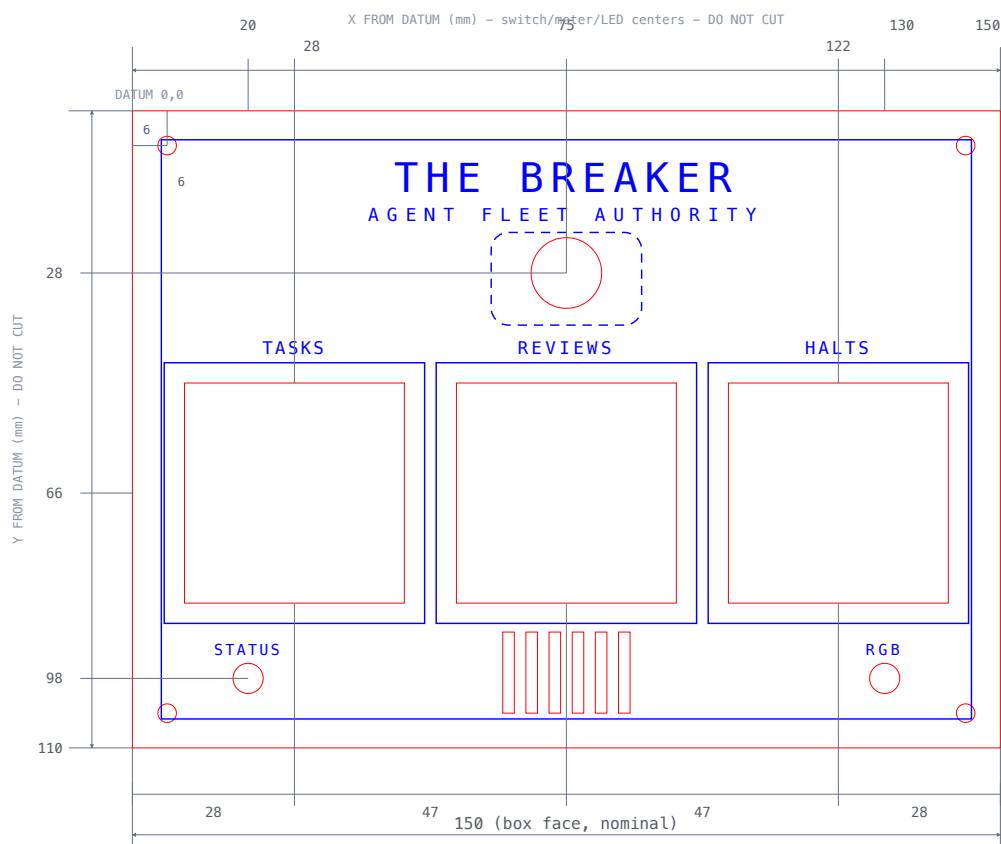
GND
phys 14

GPI027 -

6 / 9

150x110mm acrylic. University laser cutter.

THE BREAKER – faceplate layout – rev A – 2026-07-18 – 3mm acrylic – 150x110mm



CUT LEGEND

- CUT (through) #FF0000 0.1mm
- ENGRAVE (surface) #0000FF
- ANNOTATION gray DO NOT CUT

CUTOUT SCHEDULE

Datum = plate top-left; all mm)

- TOGGLE PANEL HOLE Ø12.2*
- PANEL METER CUTOUT 38x38*
- METER BEZEL 45x45*
- ^ riskiest dim – DROK meters vary
- STATUS LED HOLE Ø5.2*
- RGB LED HOLE Ø5.2*
- M3 CORNER HOLES Ø3.2 (inset 6)
- BUZZER SLOTS 6x 2x15

METER CENTERS FROM DATUM

- X = 28 / 75 / 122 mm (SPACING 47)
- SWITCH CENTER X=75 Y=28
- LED CENTERS X=20 & 130 Y=98

NOTE – part-dependent dims (*)

* verify against purchased part datasheet before cutting

Material: 3mm cast acrylic faceplate.
Mount: ABS project box, M3 x4 corners.
Text engraved in caps; frame engraved.
Engrave text shown filled blue for legibility (= engrave layer).

All dims in mm. Front view drawn 1:1.
Annotation/dimension layer = DO NOT CUT.

\$41.59 to make it real.

Pi Zero 2 W	\$15.00
Guarded toggle switch	\$8.00
32GB microSD	\$7.99
Breadboard + jumpers	\$8.00
LED + resistor	\$0.60
Spade connectors	\$2.00
Phase 1 core	\$41.59

Full cockpit with gauges: about \$125. Cap was \$200.

Would you let an autonomous agent act on your behalf without a hardware off switch?

Building it next. Follow along.

