# Pi CAP | PIN FUNCTIONS

High resolution, tuneable touch and distance sensors for your Raspberry Pi

CONNECT RASPBERRY Pi A+, B+, ZERO AND LATER

RGB LED

E0 to E11 12 CAPACITIVE SENSING ELECTRODES

PUSH SWITCH

E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11

J8.12
J8.13
J8.15
J8.16
J8.18
J8.22
J8.36

J8.12
J8.13
J8.15
J8.16
J8.18
J8.22
J8.36

7 GPIO FROM MAIN HEADER

GND

BARE CONDUCTIVE® | Pi CAP

GND

AUDIO OUT

PROTOTYPING AREA

## ELECTRODES

These twelve capacitive sensing electrodes can detect touch and proximity. With gold edge plating and 3.2mm holes they are easy to clip to, paint onto with Electric Paint or solder to.

## CONNECTOR HEADER

This connects to any Raspberry Pi with a 40-pin GPIO connector (all of the modern models).

## RGB LED

Active low, red connected to J8.31, green to J8.29, blue to J8.37. Beautifully colour balanced and shines through a mounting hole on the Pi for screenless status updates.

## GPIO

Seven of the pins that we don't use are taken from the GPIO header and broken out for you to connect to.

## PROTOTYPING AREA

84 pads (7 x 12) with 1mm diameter drills spaced 2.54mm apart for you to use as you wish.
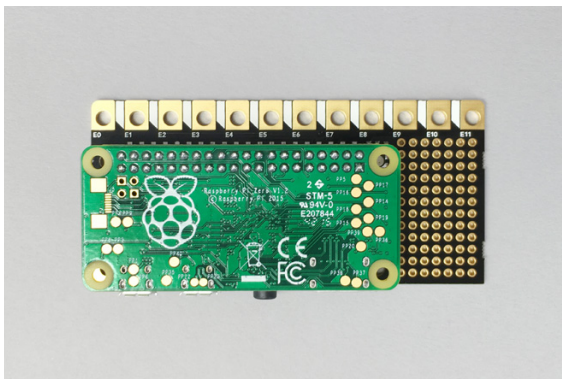
## AUDIO OUT

15.5-bit stereo line out on a 3.5mm socket with a dedicated low-noise power supply. Will drive most headphones too.

## GROUND

Great for grounding shielded cable and for clipping oscilloscope probes or multimeter leads to when debugging your project.

## PUSH SWITCH

Active low, connected to J8.7. Requires the Pi's onboard pullup resistor to be enabled in software. Useful for shutting down or restarting the Pi properly.

*The Pi Cap works with Raspberry Pi A+, B+, Zero and later.*

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