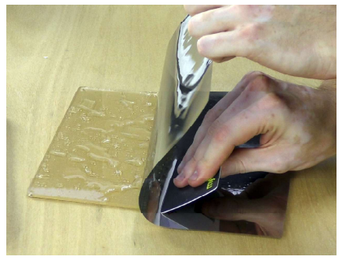
1 Prepare front panel

• Peel protective layers off one clear panel.

• Insert 4x 30mm screws in corner holes. *Taping the screw-heads down will help secure the screws for the rest of assembly.*

Be careful not to scratch exposed acrylic.

2 Prepare front mirror

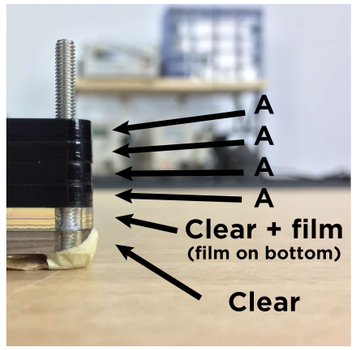


Some steps are tricky! Refer to the assembly video for more detail. URL:

coreelec.io/infinitykit

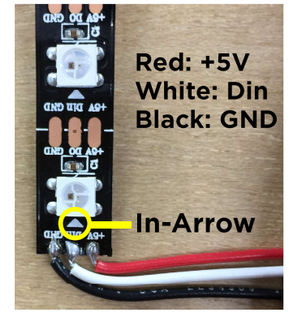
• With the ***other*** clear panel: Peel off ***one*** protective layer and generously apply the soap solution (refer to *Important* section, front cover). Mist solution with a spray-bottle or spatter/flick with fingers.
• Reflective film: Peel off backing and adhere to exposed acrylic. Gently smooth with a credit card or similar. **Trim excess film** with a hobby-knife.

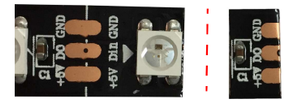
3 Assemble mirror-box



• Stack the front mirror onto the front panel, film-side down. Peel off remaining protective layer.
• Stack 4x **A**, label up, keeping small corner-cutout aligned across all four layers.

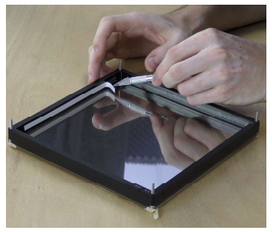
4 Solder wires to LED strip



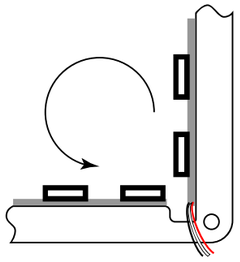


• Slide the LED strip out of its protective cover.
• Cut a 170mm length of each Red, White, Black wire and strip 5mm of insulation from each end.
• Solder wires to the **input-end** of the strip (arrow points in).
• Gently bend the wires in the direction shown.
• On the **un-soldered end** of the strip, trim flush with the last LED using a hobby-knife or side cutters.

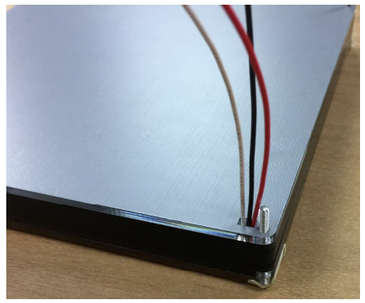
5 Mount the LED strip



• Line the mirror-box walls with double-sided adhesive tape and press the LED strip into position:
Position soldered-end of strip so wires exit upwards through corner cutout.
Make sure the strip follows the rounded corners closely. The ends of the strip should not contact eachother.

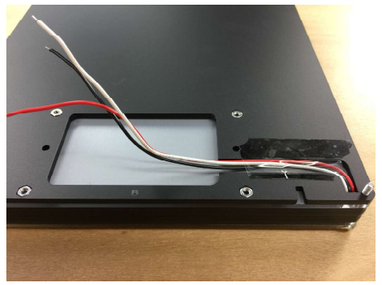


6 Close the mirror-box



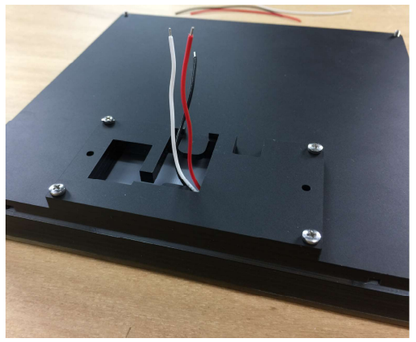
• Clean any fingerprints on the front mirror with a dry, lint-free rag.
• Remove protective layer from mirror panel and mount reflective-side down, feeding wires through the small rectangular hole.

7 Route wiring



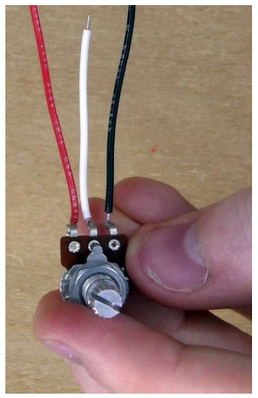
• Press 4 nuts into the hexagonal holes in **B**, and 2 into **C**.
• Mount **B** (label-side up), laying LED wires along the cut-out channel. Taping wires down makes assembly easier.

8 Assemble control-box



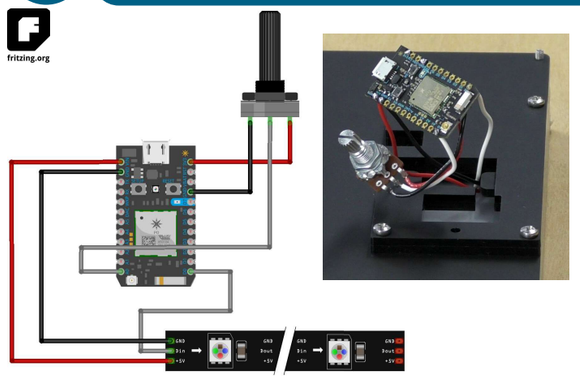
• Mount **C**, label-side up, with wires fed through centre hole.
• Fasten 4 nuts onto the 4 protruding screws.
• Mount **D** and the final black panel (unlabelled) by securing with 4x 12mm screws in corner holes.

9 Prepare potentiometer



• Cut 70mm of each Red and Black wire, 40mm of White. Strip 5mm of insulation from each end.
• Solder as shown and remove the mounting nut and washer from the pot - keep aside.

10 Solder Photon connections



Insert wires from underside of Photon

Potentiometer:
Red -> 3v3
Black -> GND
(adjacent to D7)
White -> A0

LED strip:
Red -> Vin
Black -> GND
White -> D0

11 Test and complete

Ensure solder connections are sound, with no bridging.
Rotate pot to far-left.
Plug power supply into Photon - LED should glow white. Slowly turn knob to the right - Light patterns should become visible beneath protective layer on front panel. De-power. Seat Photon, pot and fasten the final clear panel with 2x 12mm screws. Secure the pot with its washer and nut.

12 Share your project!

You did it! You've finished building your **Infinity Kit**! Share your project with the world, and tag us. We'd love to see your completed kit and the creative things you do with it!

CoreElectronics @coreelectronics

If you want to connect your **Infinity Kit** to the internet or learn to modify its code, follow our online tutorials at:

http://coreelec.io/infinitykit

Infinity Kit

A tunnel of light that tears through space!

Assemble, code and share!

Some steps of the assembly process can be a bit tricky. If you're unsure, we have a video of the whole assembly process here: http://coreelec.io/infinitykit

Each kit contains:
- 2x clear panels
- 1x mirror panel (grey backing)
- 4x part **A**
- 1x part **B**
- 1x part **C**
- 1x part **D**
- 1x unlabelled black panel (98x53mm)
- 1x clear cover panel (98x52mm)
- 1x reflective film
- 2ea black and clear feet
- 6x M3x12 screw
- 4x M3x30 screw
- 10x M3 hex nut
- Double-sided adhesive tape
- 1x Particle Photon
- 1x 10k potentiometer
- 1x knob
- 1x LED strip (44LEDs) - remove from plastic cover
- 260mm (approx) Red, Black, White wire
- 1x 5V USB power supply

Important - You will need:
- Soap solution:
Add a single drop of dishwashing detergent to a large glass of water and stir. Avoid suds/bubbles by adding detergent to water, not water to detergent.
- Side cutters
- Soldering Iron + solder
- A sharp hobby/craft-knife
- A credit card or similar (to apply film)
- A dry, lint-free rag
- (Optional) A spray bottle to apply solution.

Tips:
- To keep fingerprints to a mimimum, leave protective layers on acrylic parts until that part is needed.
- There might be acrylic plugs left in some laser-cut holes. Make sure to pop them out as you go.

The **Infinity Kit** was designed and fabricated by the Core Electronics team, in Newcastle - Australia.

Design & Fabrication:
Michael Ruppe

Testing & Feedback:
Aidan Caelli

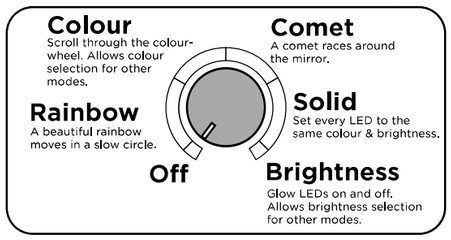
Marketing & Support:
Sam Spencer

Logistics:
Gordon Marshall
Royden Nicholson
Jordan Dodd
Emerson Sims

Purchasing:
Patrick Huolohan
Brenton Ridley

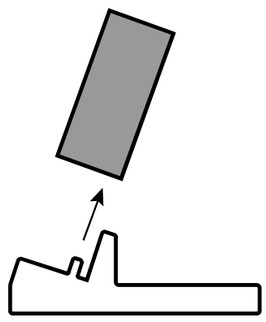
Project Lead:
Graham Mitchell

Default mode-knob settings



This mode arc is drawn to scale, so you can cut it out and paste it on your Infinity Kit if you wish - or use it as a template for your own modes.

Your Infinity Kit comes with some feet to prop it at an angle. A notch on each foot slots into into the base of the kit:



designed in Newcastle
made by you