

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









# Bearables Bear Kit /PIM319





A complete Bearables Bear Kit with coloured LED badge, motion sensor, thread, needles, and battery. Sewable, hackable, wearable, adorable!

Bearables is a range of woodland-themed wearable LED badges and sensors. Wear the badges on their own, or connect them to one of the sensors with conductive thread to bring them to life. Designed for kids\* (suggested age 8+) and grown-up kids alike!

Attach the acorn motion sensor to the Bear badge and when you move the sensor your badge's LEDs will light up.

In their five star review, The MagPi said that Bearables were "excellent value for money" and that "the badge kit has everything you need to sew your interactive badge and sensor to clothes".

\*Contains small parts. Not suitable for children 3 years or younger. This is not a toy. Keep battery out of reach of children. If ingested, seek medical help immediately.

#### Kit contains

- Bear badge with 12 LEDs (multi-coloured)
- Acorn motion sensor
- 3m stainless steel conductive thread
- 3 sewing needles
- CR2032 3V coin cell battery
- 2x sticker sheets
- Instructions
- Reusable box

#### **Features**

- 12 coloured LEDs (blue, green, yellow, orange, red, pink)
- 12 light patterns
- Multi-functional button (mode change, sleep, trigger mode)
- PIC16F1503 microcontroller
- Sewable hooks
- Tilt switch motion sensor
- Battery life of 3-4 days with a CR2032 coin cell battery

#### Using your Bearables badge

Press the multi-functional button on your badge briefly to cycle through the light patterns. Each of the LEDs will light to indicate which of the 12 patterns is currently selected. Press and hold the button to put your badge into sleep mode.

The nifty design of the badges and sensors means that it's super-simple to connect them. It doesn't matter which way round they're connected. Just connect one hook on the badge to one hook on the sensor with conductive thread, then do the same with the other two hooks.

Once a sensor is connected, press and hold the multi-functional button to put your badge into trigger mode. Now when you trigger the sensor, the LED lights on your badge will light up.

#### **Notes**

- Bearables badges and sensors are not waterproof or washable
- Be aware that conductive thread is sharp!
- Ensure that the two pieces of conductive thread connecting your Bearables badge and sensor do not touch, bearing (pun intended) in mind that they may touch when the fabric is creased or folded. Nothing bad will happen, the sensor just won't work as it should.
- The hooks on the back can be shorted without any damage to the badge, although it may trigger the LEDs similar to triggering them with a sensor. A painted or coated safety pin will work better than a bare metal one.
- A dab of clear nail varnish on the conductive thread around the hook can help to give a better, more reliable connection
- Badge dimensions: 41x35x5mm (LxWxH)
- Sensor dimensions: 25x18x4mm (LxWxH)







### Sewing

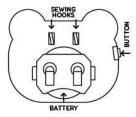
Sew this badge onto your coat or bag. If you connect the sensor to the badge with conductive thread, it will trigger the badge lights.

Electronics and washing machines do not mix. You'll want to sew this onto something you don't wash very often, or maybe use some metal poppers?

It's always handy to have a grown up on hand to help out. Make sure that the two runs of thread don't touch and short circuit. You can use a little dab of clear nail varnish to secure the thread to the hooks once wound around.

## **Using Your Badge**





Step 1 Slide the coin battery into the battery holder on the back of the badge with the + on the battery facing upwards.

Step 2
If a sensor is connected, press and hold the button to put your badge into trigger mode. If no sensor is attached then this will put the badge to sleep.

Step 3 Press the button briefly to cycle through the 12 light patterns.



Step 1
Knot the thread
at one end and
pull the other end
through the needle.



Step 2
Put the needle
through the fabric
and do 2-3 stitches
on top of each
other to anchor the
thread.



Step 3
Loop the thread
around one of the
hooks on the back
of the badge, repeat this 4-5 times,
as tightly as you
can.



Step 4
Anchor the thread again, as you did in step 2, then run a stitch to where you'd like the sensor to be.



Step 5
Repeat steps 2-4
to attach the first
hook on the sensor
to the fabric.



Step 6 Repeat steps 1-5 to attach the second hook on the badge and the second hook on the sensor.

For more tips visit pimoroni.com/bearables

**PIMORONI**