

## Field Monitor BOM

### **From LowPowerLabs:**

2 x Moteino (make sure the options are correct - some aren't legal in the UK!):

<https://lowpowerlab.com/shop/moteino-r4>

Transceiver: RFM69W – 433MHz (+\$6.00)

Extras: Add male side headers (+\$1.00)

£40 (inc. shipping)

### **From RS components:**

1 x power supply:

<http://uk.rs-online.com/web/p/plug-in-power-supply/7653311/>

£6.00

1 x SD card:

<http://uk.rs-online.com/web/p/secure-digital-cards/9011289/>

£8.36

1 x Raspberry Pi B+:

<http://uk.rs-online.com/web/p/processor-microcontroller-development-kits/8111284/>

£18.23

2 x FTDI cable:

<http://uk.rs-online.com/web/p/interface-development-kits/0429307/>

£27.46

1 x Eneloop low self discharge batteries:

<http://uk.rs-online.com/web/p/aa-rechargeable-batteries/8124393/>

£11.00

1 x Battery holder:

<http://uk.rs-online.com/web/p/battery-holders-mounts/4101450/>

£2.58

2 x N-channel MOSFET:

<http://uk.rs-online.com/web/p/mosfet-transistors/8075863/>

£1.50

1 x Lithium Ion battery:

<http://uk.rs-online.com/web/p/lithium-rechargeable-battery-packs/7760872/>

£22.48

5.6k resistors:

<http://uk.rs-online.com/web/p/through-hole-fixed-resistors/0157395/>

### **From Makersify:**

1 x Real Time Clock (to keep track of time in the field):

<https://makersify.com/products/adafruit-ds1307-real-time-clock-breakout-board-kit>

£9.00

1 x solar charger:

<https://makersify.com/products/adafruit-usb-dc-solar-lithium-ion-polymer-charger>

£16.00

1 x PowerBoost:

<https://makersify.com/products/powerboost-500-basic-5v-usb-boost-500ma-from-1-8v>

£10.00

2 x 6V 2W solar panel:

<https://makersify.com/products/adafruit-medium-6v-2w-solar-panel>

£44.00

1 x thermistor (to monitor battery temperature):

<https://makersify.com/products/adafruit-10k-precision-epoxy-thermistor>

£5.00

1 x HDMI to VGA (so that RPi can output to a screen for setup):

<https://makersify.com/products/adafruit-hdmi-to-vga-video-audio-adapter>

£17.00

**TOTAL: £238.61**