



# Robo:Bit Mk3 - buggy for the micro:bit

- 4TR-RBITBUG3

Robo:Bit Mk3 DIY Buggy for the BBC Micro:Bit

NB. micro:bit is NOT included.

Mk3 is very similar to Mk2 but with all the optional extras integrated (except Talon)

The Robo:Bit Makecode package supports all versions of Robo:Bit Mk3

This little buggy can be assembled very quickly using only a screwdriver. No soldering is required

The Mk2 here is still produced and will be a cheaper option if you don't need all the sensors and extras of the Mk3.

### **Mk3 changes:**

- Integrated line following sensors
- Integrated ultrasonic distance sensor
- Integrated pen holder mounted at the axis of rotation
- Integrated 8 element LED bar (aka neopixels) with “auto scanner” software support
- Motors fitted on top to make it more compact
- Screwdriver and Spanner widget tools included

### **Contents:**

- Robo:Bit Mk3 robotics controller PCB
- Battery holder PCB
- Fixings pack (motor mounts, screws, mounting pillars, caster, etc.)
- 2 x Yellow Wheels with Tyres
- 2 x Motors with pre-fitted connection wires (no soldering required)
- Screwdriver and spanner widget

### **Using this great kit you can learn about:**

- Controlling motors with simple Forwards / Reverse controls
- Controlling the speed of motors in both directions using PWM
- Use a second BBC micro:bit with the easy-to-use radio software to control the buggy
- Use the motion sensor on the micro:bit to detect collision with obstacles and avoid them
- Detect when obstacles get close and change the program to avoid the obstacles
- "Follow-Me" program that tries to stay a certain distance from the object in front
- Use the 2 line sensors either side of the non-reflective line to detect the line and keep the buggy on track
- Write more complex programs that behave as required if you meet a T-Junction or crossing of lines
- Compare different line following strategies - create a race-track and see which strategy is fastest
- In combination with the distance sensor, make it avoid obstacles on the track and then re-acquire the line





<https://shop.pimoroni.com/products/robo-bit-mk3-buggy-for-the-micro-bit/> / 12-10-18