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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 Robobit Makecode package supports all versions of Robobit 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


Front of Robot
OFF
ON


AA
ALKALINE
PRO-ELEC
ON



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