Kitronik

ESSENTIAL INFORMATION

OVERVIEW
BUILD INSTRUCTIONS
KIT CONTENTS
ONLINE INFORMATION

BUILD YOUR OWN ELECTRONIC PET WITH THIS

VIBROBUG KIT

Version 2.0

Vibrobug Essentials

www.kitronik.co.uk/2150

About the Vibrobug

This Vibrobug is supplied in kit form and requires a small amount of soldering as well as some mechanical assembly. A coin cell powers a small motor which vibrates the whole body of the bug, causing it to scurry across tables.

What's in the Kit?

- A pre-cut piece of Perspex containing the bug parts.
- A Miniature 3V Vibrating Motor.
- A Coin Cell Power Board Kit.
- A set of fixings (4 nuts & bolts).
- A CR2032 3V Coin Cell.

Note: This is not a toy.

Available in red or black.

The parts are also available separately:

- A 100mmx100mm piece of 3mm Perspex.
- A Miniature 3V Vibrating Motor.
- A Coin Cell Power Board Kit.
- M3 nut and 12mm bolt x 4.
- A CR2032 3V Coin Cell.

You will also need the cutting data files for the bug (these files are for educational / private use, not to be copied / used for commercial gain) and access to a laser cutter.

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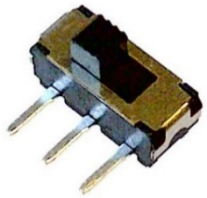
Build Instructions

Start by assembling the Coin Cell Power Board. This board is easy to assemble as there are only three parts. Steps 1 and 2 show how this should be done. Jump to step four if you are using the pre-built PCB.

1 SOLDER THE SWITCH

Solder the switch into the board with the slider facing the edge of the board. Be careful not to solder adjacent pads together.



2 SOLDER THE COIN CELL HOLDER

Now solder the Coin Cell Holder into the board, making sure that the part matches the outline marked on the PCB.

3 ATTACH THE WIRES

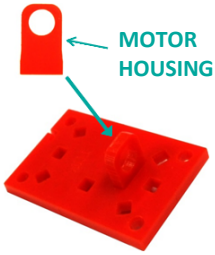
Taking the wires from the motor, feed both wires through the strain relief hole and solder to the corresponding black and red pads.

4 PREPARE THE PERSPEX PARTS

Carefully push the parts out of the Perspex frame.

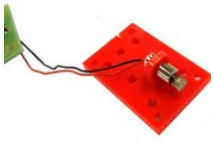
5 ATTACH THE MOTOR HOUSING

Push the motor housing into the slot on the main board so that the hole is exposed at the top of the board. The top can be identified as it has 'TOP' lightly engraved on it.



6 CONNECT THE MOTOR

Push the motor into the hole with the wires coming out of the back. The tight fit is necessary for the bug to move properly.



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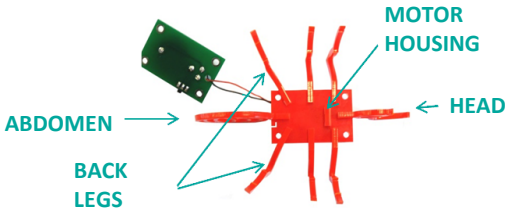
7 IDENTIFY THE VIBROBUG LEGS

Identify two back legs and four front legs. The back legs are slightly longer and have a hook on the inside just above the foot.

The kit is supplied with spare legs, in case any get damaged during use.

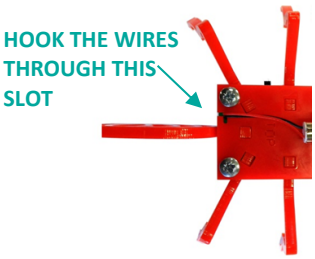
8 ASSEMBLE THE BODY

Push the legs, head and abdomen into place.



9 PLACE AND SECURE THE PCB

Attach the PCB to the main board using the nuts and bolts. Tighten the bolts until they feel secure. If the acrylic begins to creak or the board bends then **STOP**, as over-tightening can crack the acrylic.



10 POWER UP

The Vibrobug is now complete, put the coin cell into the holder making sure the '+' is visible on the top of the holder. Put it on a flat or slightly sloped surface and turn it on!

Online Information

Two sets of information can be downloaded from the product page where the kit can also be reordered from. The 'Essential Information' contains all of the information that you need to get started with the kit and the 'Teaching Resources' contains more information on soldering, components used in the kit, educational schemes of work and so on and also includes the essentials. Download from:

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This kit is designed and manufactured in the UK by Kitronik

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