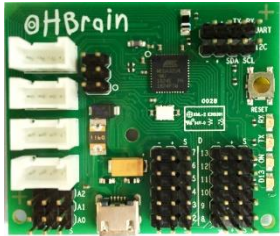


# OHBOT

make program learn



v2.1 Ohbrain Dev. Kit

## Ignition!

## Kit parts



Dual USB cable



Ohbrain board

## Hello

Ohbrain Development Kit allows you to create robots that use up to 7 micro servos and 6 sensors.

The board can be used either with Ohbot graphical programming language for Windows or Python on a Raspberry pi.

When using a Windows PC, the Ohbrain and servos are powered by a dual USB cable. For Raspberry pi a separate 5 volt USB power supply is needed.

## You will

### Windows

A computer that runs Windows 7, 8 or 10



### Raspberry pi

A Raspberry pi Model 3B with NOOBs card, power supply, monitor and keyboard/mouse

A 5volt lamp USB power supply (for Ohbot)

For more on what's needed for pi please visit

[www.ohbot.co.uk/ohbotpi/setup](http://www.ohbot.co.uk/ohbotpi/setup)

### Servos

The board has been tested to work reliably using Fitech FS90 servos. These are available to buy from

[www.ohbot.co.uk](http://www.ohbot.co.uk)

## Set up 1 - Windows

1. To install the software go to [www.ohbot.co.uk/install-ohbot-software](http://www.ohbot.co.uk/install-ohbot-software) Follow the instructions to install.
2. Download the *Ohbrain Motor Definitions* file from [www.ohbot.co.uk/accessories](http://www.ohbot.co.uk/accessories) and save it to Documents> Ohbot on your computer. In this folder delete the existing Motor Definitions file, then rename the downloaded MotorDefinitionsOhbrain file simply MotorDefinitions

## Set up 2 - Windows

3. Connect the Ohbrain to the PC using the dual USB cable. Be sure to connect **both** of the USB plugs to the PC.
4. The Ohbot simulation can be disabled by going to Settings>Simulation and setting the refresh speed to 0ms

## Set up pi

Go to [www.ohbot.co.uk/ohbotpi/setup](http://www.ohbot.co.uk/ohbotpi/setup) and follow the Ohbot pi set up guide

## Program Windows



For help, ideas and inspiration visit [www.ohbot.co.uk](http://www.ohbot.co.uk) On the Make Menu select Program

## Warnings

- Assembly and use is for ages 7+ under adult supervision
- Any external power supply used with the product shall comply with relevant regulations and standards applicable to the country of intended use.
- This product should be operated in a well ventilated environment and, if used inside a case, the case should not be covered.
- This product should be placed on a stable, flat, non-conductive surface in use and should not be contacted by conductive items.
- The connection of incompatible devices to the GPIO connectors may affect compliance or result in damage to the unit and invalidate the warranty.
- All peripherals used with the product should comply with relevant standards for the country of use and be marked accordingly to ensure that safety and performance requirements are met. These articles include but are not limited to keyboards, monitors, and mice used in conjunction with the product.
- Where peripherals are connect that do not include the cable or connector, the cable or connector used must offer adequate insulation and operation in order that the requirements of the relevant performance and safety requirements are met.

## Safe use

To avoid malfunction or damage to your product please observe the following:

- Do not expose it to water, moisture, or place on a conductive surface whilst in operation.
- Do not impede the product's motors from moving whilst they are powered to move.
- Do not expose it to heat from any source; the product is designed for reliable operation at normal ambient room temperatures.
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- Avoid handling the printed circuit board while it is powered. Only handle by the edges to minimise the risk of electrostatic discharge.

## About

Ohbrain is designed, engineered and manufactured in the UK by Ohbot Ltd. Halliday's Mill, London Road, Chalford, Gloucestershire.

For more about Ohbot visit [www.ohbot.co.uk](http://www.ohbot.co.uk) For help with Ohbot contact [info@ohbot.co.uk](mailto:info@ohbot.co.uk)

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All parts are ROHS compliant.

