# OHBOT
make program learn

# Illuminated Eyeballs Instructions

These replacement eyeballs can light up in almost any colour allowing Ohbot to indicate its feelings in a superhuman way!

They connect to pin JP8 on the Ohbrain circuit board and are controlled using special instruction blocks in the Ohbot programming software.
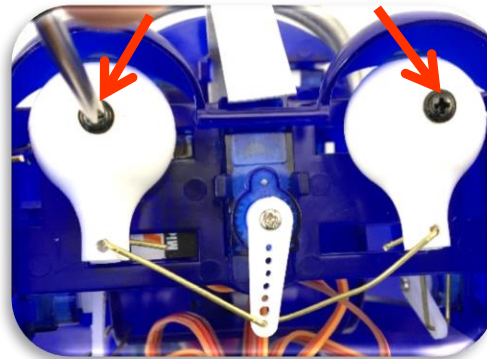
The page explains how to install eyeballs on a preassembled Ohbot. If you are constructing a kit please skip straight to step 5.

Turn over the sheet for sample programs to help get you started.

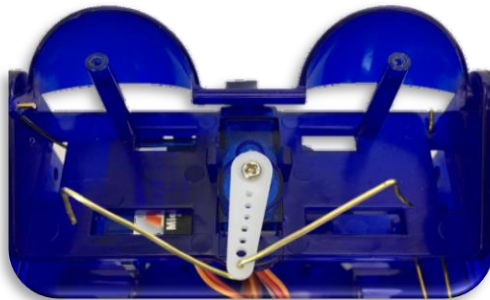1. With Ohbot disconnected from the computer, gently push the motor arm up to close Ohbot's eyelids.
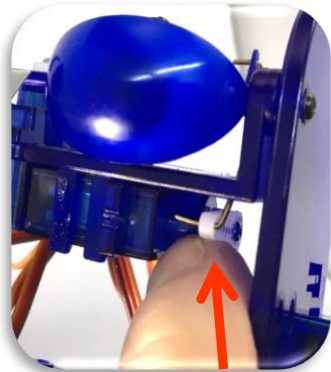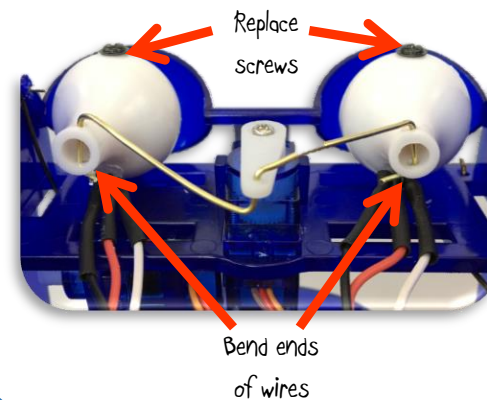
2. Undo these screws.

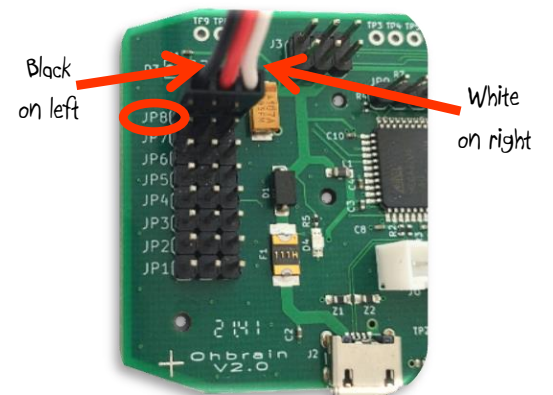3. Straighten the ends of the link and pull out of the holes at the back of the eyeballs.

4. Remove Ohbot's eyeballs.

5. Put the new eyeballs in place with the wires to the bottom of the eyeball. Replace screws and bend ends of wires.

Replace screws

Bend ends of wires
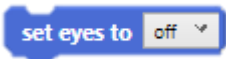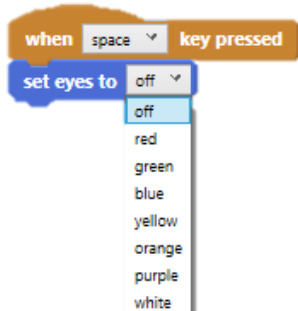
6. Plug into pins JP8 as shown.

Black on left

White on right

## Light up

1. Select Events from the menu.

2. Drag a When Space key pressed block onto the code area.

when [space ▾] key pressed

3. Select Motion from the menu.

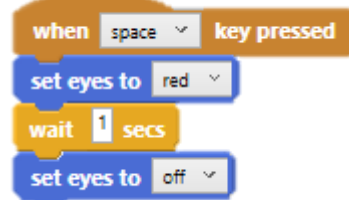4. Drag a Set Eyes to block onto the code area.

set eyes to [off ▾]

5. Drop it beneath the When block.

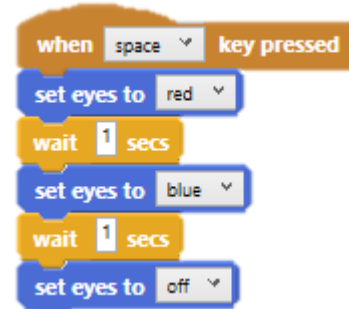6. On the Set eyes to block click on the drop down menu and select a colour.

when [space ▾] key pressed
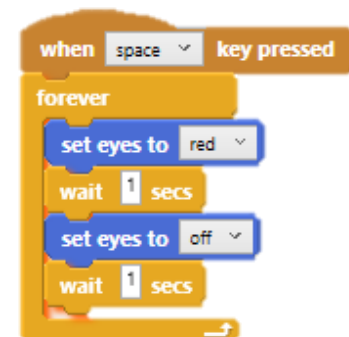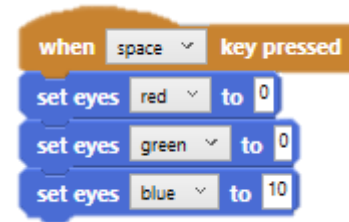set eyes to [off ▾]
- off
- red
- green
- blue
- yellow
- orange
- purple
- white

7. Press Space.

## Flash Once

when [space ▾] key pressed
set eyes to [red ▾]
wait [1] secs
set eyes to [off ▾]

## A sequence of colours

when [space ▾] key pressed
set eyes to [red ▾]
wait [1] secs
set eyes to [blue ▾]
wait [1] secs
set eyes to [off ▾]

## Flashing repeatedly

when [space ▾] key pressed
forever
  set eyes to [red ▾]
  wait [1] secs
  set eyes to [off ▾]
  wait [1] secs

## Light in any colour

when [space ▾] key pressed
set eyes [red ▾] to [0]
set eyes [green ▾] to [0]
set eyes [blue ▾] to [10]

Set the intensity of each colour by choosing a value between 0 and 10.

## Random intensity

when [space ▾] key pressed
set eyes [red ▾] to (pick random [0] to [10])

## Using change

when 🏁 clicked
set eyes to [off ▾]
forever
  if (key [up arrow ▾] pressed?) then
    change eyes [red ▾] by [1]
  if (key [down arrow ▾] pressed?) then
    change eyes [red ▾] by [-1]
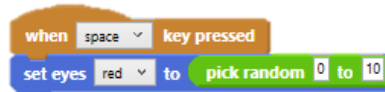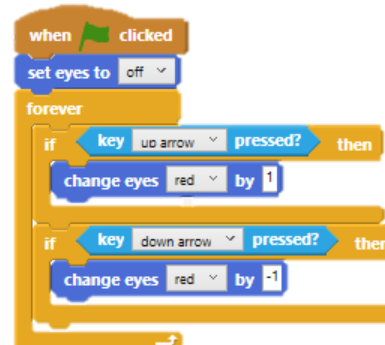
## Blocks explained

set eyes to [off ▾]

Sets the eyes to one of a range of pre-set colours by selecting from the drop down menu and then running this block.

set eyes [red ▾] to [0]

Sets the intensity of each of the primary colours. Choose a value between 0 and 10, 10 being the most intense. Select the primary colour using the drop down selector.

change eyes [red ▾] by [1]

Changes the intensity of the primary colour selected by the value entered. Negative numbers can be used to decrease the intensity.