OHBOT
make program learn

## Illuminated Eyeballs Instruction

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

They connect to pin 13 on the Ohbrain circuit board and are controlled using special instruction blocks in the Ohbot programming software.
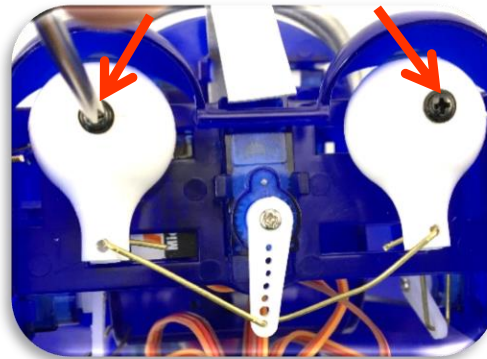
The page explains how to install eyeballs on a preassembled Ohbot. If you are constructing a kit please skip straight to step 5.

Turn over the sheet for sample programs to help

1. With Ohbot disconnected from the computer. Gently push the motor arm up to close Ohbot's eyelids.
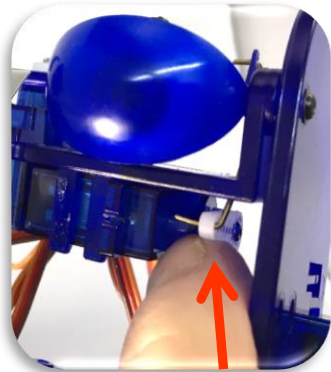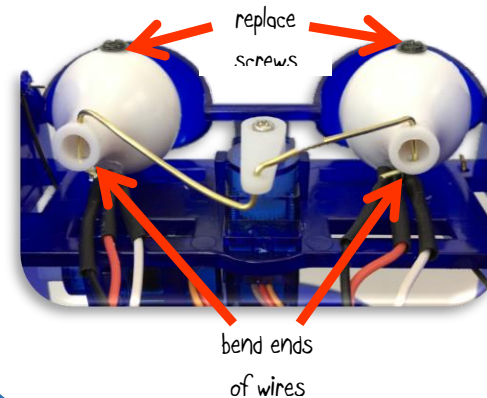

2. Undo these screws

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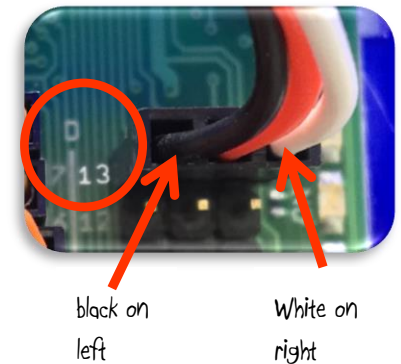

4. Remove Ohbot's eyeballs

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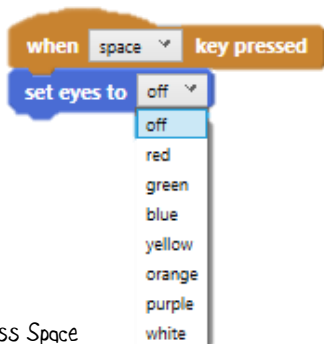
replace screws

bend ends of wires

6. Plug into pins D13 as shown

black on left

White on right

Light up

1. Select 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

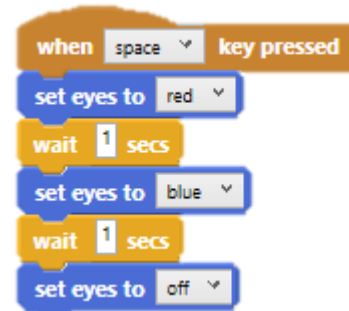6. On the Set eyes to block click on the drop down menu and select a colour

```
when [ space ∨ ] key pressed
set eyes to [ off ∨ ]
    off
    red
    green
    blue
    yellow
    orange
    purple
    white
```
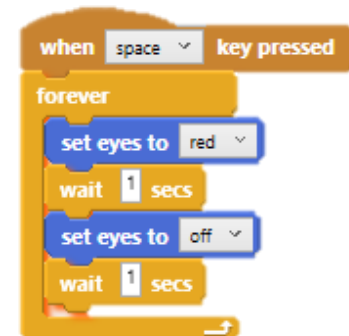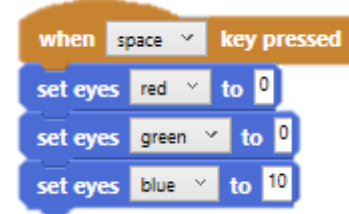
7. Press Space

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
```
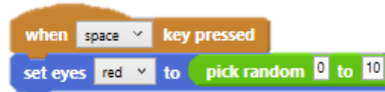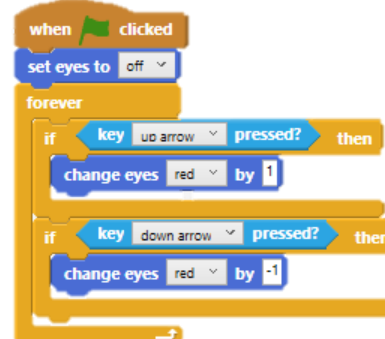
Blocks explained

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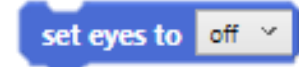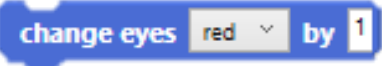
Sets the eyes to one of a range of pre-set colours by selecting from the drop down menu and then running this block.

```
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.