

Quick start guide

body interaction 1- vibrator development board

Introduction

With the body interaction 1 you can build your own advanced vibrator. In contrast to customer products which come with a number of pre-programmed vibration pattern you can program every possible pattern. In addition the body interaction 1 is equipped with a motion detection sensor (accelerometer) which can be used to adjust the motor speed. Instead of pressing little buttons to increase or decrease the speed, you can move the vibrator faster or slower to adjust the speed.



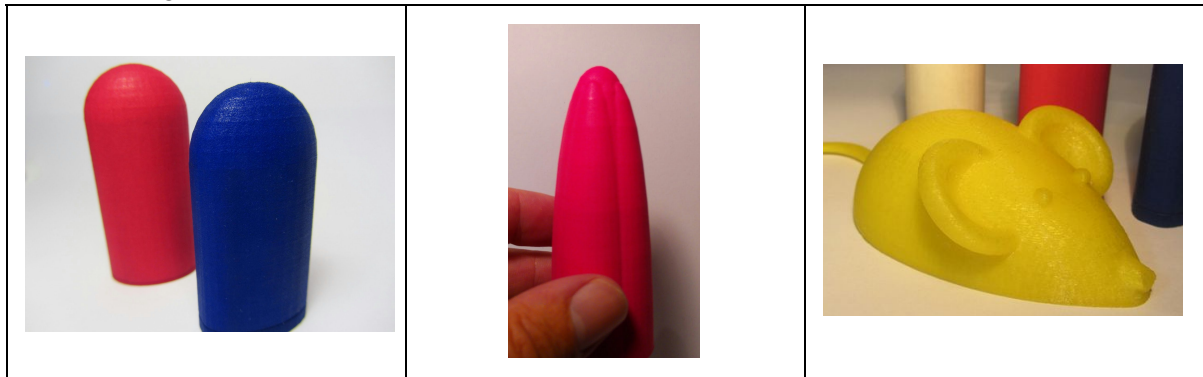
Another feature is radio communication. By this *two or more* body interaction 1 can communicate with each other, e.g. to synchronize the vibration. body interaction 1 is Arduino-compatible and programming can be done with the Open Source Arduino Software. The body interaction 1 consist of a development board, a vibration motor and a LiPo battery. There are two radio types: 866 MHz (EU, asia) and 915 MHz (US).

Requirements

Case

A case for the body interaction 1 is needed. The easiest way to get a case is to use 3d printing. The case will determines the function.

The following cases are available:



Massage: “Red” case is for building a massage wand for relaxation and recreation.	Vibrator: “Organic” is a vibrator for stimulation.	Toy: “Yellow mouse” is a cute little mouse which moves by vibration power.
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Screws

To close the cases you need two M3 screws.

USB connector

In addition you need a USB connector to charge the battery.

Optional requirements

If you want to develop your own programs you need a ISP programmer (6 pin) and a computer with the Arduino Software or an Internet browser.

Installation

1. Connect the vibration motor and the body interaction 1. The connector is named “motor”.
2. Connect the LiPo battery and the body interaction 1. The connector is named “LiPo”
3. Insert the vibrator motor in the case. You can use some glue to fasten the motor and prevent unwanted rumbling. Usually glue is not necessary.
4. Insert the body interaction 1 in the case. There are two rails in the case where the body interaction 1 will slide in.
5. Slide the switch to left - the motor will go on.
6. Connect the USB micro connector with a computer or a USB charger. A yellow LED will be on.
7. When the yellow LED is off the battery is charged. Unplug the charger.
8. Close the case. Use a screwdriver and fasten two M3 screws.

Usage

There are three modes. In you haven’t used the body interaction 1 it will be in sleep mode. If you just assembled the case it will be in active or stand-by mode.

Active mode

Move the case very fast (eg shaking) will increase the vibration speed. If you want to stop the vibration stop any motion. Sometimes the body interaction 1 will induce vibration motor speed up by its own vibration. Then put the case in a secure place where it cannot move and wait for a moment.

Stand-by mode

After some time the vibration motor will get off. It can be reawakened by movements

Sleep mode

After approx 30 seconds the body interaction 1 will be put in sleep mode to save battery power. To awake move the body interaction 1 continuously. It can take up to a minute to awake it.

Two or more body interaction 1

Usage is similar, but in addition each body interaction 1 vibration speed is influenced by other body interaction 1, eg. move on body interaction 1 very fast (by shaking). All other body interaction 1 will speed up.

Referential information

More guides and information: www.bodyinteraction.com

Free 3d models of the cases: <http://www.thingiverse.com/south/designs>

3d printing service Sculpteo: <http://www.sculpteo.com/de/gallery/public/south/>