



PrimaryPi

Raspberry Pi Scratch Projects
For Primary Education



Main Menu

- [Home](#)
- [Addon Boards for the Raspberry Pi](#)
- [Robots & Motors](#)
- [Using the Boards with Scratch](#)
- [Sensors for the Raspberry Pi](#)
- [Download Files](#)
- [Site Administrator](#)
- [Login](#)
- [Training](#)
- [After School Clubs](#)
- [How To's](#)
- [Contact Us](#)

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How to Install and Connect a bluetooth Keyboard and Mouse to your RasPi

You will need

Trust Bluetooth Dongle (Maplin) versions 3.0 and 4.0 work

Targus bluetooth Keyboard THZ220UK (dell)

Dell bluetooth Mouse WM524 (dell)

1. Install drivers for your bluetooth dongle

Open a terminal window

Type in

```
sudo apt-get install bluez-utils blueman
```

When prompted "Do you want to continue [Y/n]?" press the "y" key and then "Return" or "Enter".

The Trust bluetooth dongle uses an Atheros chip so you need to install the correct firmware

Type in

```
sudo apt-get install atheros-firmware
```

When prompted "Do you want to continue [Y/n]?" press the "y" key and then "Return" or "Enter".

Now check that your raspberry pi can detect the Dongle

Type in this command

```
lsusb
```

You should see something like this:

```
Bus 001 Device 002: ID 0424:9512 Standard Microsystems Corp.
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 003: ID 0424:ec00 Standard Microsystems Corp.
Bus 001 Device 006: ID 0cf3:3005 Atheros Communications, Inc. AR3011 Bluetooth
```

2. Connect to the keyboard

Turn your keyboard on using the switch at the front, then press fn + esc at the same time, the red and blue led's will flash

Type in the following command to scan for your keyboard

```
sudo hcitool scan
```

```
pi@raspberrypi ~ $ hcitool scan
Scanning ...
```

```
EC:EA:03:47:11:8F Targus Bluetooth 3.0 Keyboard
```

If your RasPi can't find the keyboard you may need to switch it off and on again these repeat from step 2

Make a note of **YOUR** keyboard's MAC address. ie: EC:EA:03:47:11:8F

Run this command using **YOUR** MAC address:

```
sudo bluez-simple-agent hci0 EC:EA:03:47:11:8F
```

You will be asked to enter a PIN code. Enter the numbers on your keyboard (displayed far right) and press "Return" or "Enter"

```
DisplayPasskey (/org/bluez/67298/hci0/dev_EC_EA_03_47_11_8F, 284825)
```

If you get a cryptic error message ('Creating device failed: org.bluez.Error.AuthenticationRejected: Authentication Rejected').

You will have to make a slight modification to the bluez-simple-agent file, type in the following

```
sudo nano /usr/bin/bluez-simple-agent
```

This will open the `nano` command line text editor. There is one occurrence of 'KeyboardDisplay' you need to replace this with 'DisplayYesNo', close the editor with ctrl-x this will close nano and ask you to save the file press y when prompted

Try the bluez-simple-agent hci0 EC:EA:03:47:11:8F command again.

Your RasPi should display the following:

Release

```
New device (/org/bluez/2808/hci0/dev_EC_EA_03_47_11_8F)
```

Now make the device trusted using :

```
sudo bluez-test-device trusted EC:EA:03:47:11:8F yes
```

Now connect to the device using :

```
sudo bluez-test-input connect EC:EA:03:47:11:8F yes
```

Your keyboard should be working

To install your Mouse repeat the process from step 2 you will not be prompted for a pass key