

# How to Install Soft Keyboard

This tutorial tests with "2016-05-27-raspbian-jessie" version, if you want to use wheezy or an earlier version of the image, there are differences in the fifth and sixth step file path, you can have a reference of virtual-keyboard on office installation tutorials

Official reference address (English)

<http://ozzmaker.com/virtual-keyboard-for-the-raspberry-pi/>

## 1. Install the necessary files

```
sudo apt-get update

sudo apt-get install libfakekey-dev libpng-dev autoconf libxft-dev libtool automake -y
```

## 2.Install the virtual keyboard "matchbox-keyboard"

```
git clone https://github.com/mwilliams03/matchbox-keyboard.git

cd matchbox-keyboard

./autogen.sh
```

Note: "./autogen.sh" execution time needs about a few minutes,It will shows as picrtured after correct implementation. If not similiar as pictured after implementation, you need check if there are error tips

```
Matchbox-keyboard 0.2
=====

prefix:                /usr/local
source code location:  .
compiler:              gcc

Building with Debug:    no
Building with Cairo:    no
Building Gtk widget:   no
Building Examples:     no
Building GTK+ Input Method: no
Building panel applet:  no
```

Then execute:

```
sudo make  
  
sudo make install
```

### 3.Shared library for installing virtual keyboard

```
sudo apt-get install libmatchbox1 -y
```

As pictured:

```
pi@raspberrypi:~$ sudo apt-get install libmatchbox1  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following extra packages will be installed:  
  libxsettings-client0  
The following NEW packages will be installed:  
  libmatchbox1 libxsettings-client0  
0 upgraded, 2 newly installed, 0 to remove and 55 not upgraded.  
Need to get 57.6 kB of archives.  
After this operation, 126 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://mirrordirector.raspbian.org/raspbian/ jessie/main libxsettings-client0 armhf 0.17-6 [8,724 B]  
Get:2 http://mirrordirector.raspbian.org/raspbian/ jessie/main libmatchbox1 armhf 1.9-osso8-3.1 [48.9 kB]  
Fetched 57.6 kB in 1s (34.7 kB/s)  
Selecting previously unselected package libxsettings-client0.  
(Reading database ... 120276 files and directories currently installed.)  
Preparing to unpack .../libxsettings-client0_0.17-6_armhf.deb ...  
Unpacking libxsettings-client0 (0.17-6) ...  
Selecting previously unselected package libmatchbox1:armhf.  
Preparing to unpack .../libmatchbox1_1.9-osso8-3.1_armhf.deb ...  
Unpacking libmatchbox1:armhf (1.9-osso8-3.1) ...  
Setting up libxsettings-client0 (0.17-6) ...  
Setting up libmatchbox1:armhf (1.9-osso8-3.1) ...  
Processing triggers for libc-bin (2.19-18+deb8u4) ...
```

### 4.Create a virtual keyboard to start the script

```
sudo nano /usr/bin/toggle-matchbox-keyboard.sh
```

Paste the below text and press ctr+x and Y, save and exit

```
#!/bin/bash  
  
#This script toggle the virtual keyboard  
  
PID=`pidof matchbox-keyboard`  
  
if [ ! -e $PID ]; then  
  
killall matchbox-keyboard  
  
else
```

```
matchbox-keyboard -s 50 extended&
fi
```

Add executable permissions for the above script

```
sudo chmod +x /usr/bin/toggle-matchbox-keyboard.sh
```

5.Add the script to the start menu

```
sudo nano /usr/share/applications/toggle-matchbox-keyboard.desktop
```

Paste the below text and press ctr+x and Y, save and exit

```
[Desktop Entry]
Name=Toggle Matchbox Keyboard
Comment=Toggle Matchbox Keyboard
Exec=toggle-matchbox-keyboard.sh
Type=Application
Icon=matchbox-keyboard.png
Categories=Panel;Utility;MB
X-MB-INPUT-MECHANSIM=True
```

6. Create icons On the taskbar (note that this steps must use "Pi" user rights, if with administrator privileges, you will not find this file)

```
nano ~/.config/lxpanel/LXDE-pi/panels/panel
```

7.Find similiar command with the following (different raspberry version may have different default content)

```
Plugin {
```

```
type=launchbar

Config {

  Button {

    id=/usr/share/applications/lxde-x-www-browser.desktop

  }

  Button {

    id=/usr/share/raspi-ui-overrides/applications/pcmanfm.desktop

  }

  Button {

    id=/usr/share/raspi-ui-overrides/applications/lxterminal.desktop

  }

  Button {

    id=/usr/share/applications/wolfram-mathematica.desktop

  }

  Button {

    id=/usr/share/applications/wolfram-language.desktop

  }

}

}
```

[Add the following code to add an icon item](#)

```
Button {

  id=toggle-matchbox-keyboard.desktop

}
```

The following picture are the effect after Modification

```
Plugin {
  type=space
  Config {
    Size=8
  }
}
Plugin {
  type=launchbar
  Config {
    Button {
      id=toggle-matchbox-keyboard.desktop
    }
    Button {
      id=/usr/share/applications/lxde-x-www-browser.desktop
    }
    Button {
      id=/usr/share/raspi-ui-overrides/applications/pcmanfm.desktop
    }
    Button {
      id=/usr/share/raspi-ui-overrides/applications/lxterminal.desktop
    }
    Button {
      id=/usr/share/applications/wolfram-mathematica.desktop
    }
    Button {
      id=/usr/share/applications/wolfram-language.desktop
    }
  }
}
Plugin {
  type=space
  Config {
    Size=8
  }
}
```

8. Execute the following command and restart after modification, if successfully, you can see a virtual keyboard icon on the taskbar of screen.

```
sudo reboot
```

[P.S.Change the size of the virtual keyboard by logining in SSH](#)

```
DISPLAY=:0.0 matchbox-keyboard -s 50 extended
```

```
DISPLAY=:0.0 matchbox-keyboard -s 100 extended
```