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Setup right click for Raspberry Pi Waveshare 7" touch screen

Updated: Jul 4

[Long time ago Raspbian Wheezy](#) supported right click emulation by long touch on touch screens. Since then Raspbian Jessie, Stretch and Buster need a separate software to be manually installed for right click emulation by two fingers touch.

There is an excellent guideline [here](#) how to set it up, and I will copy first few steps from there highlighting it with [color](#). But some specifics have to be accounted for Waveshare screens, those are highlighted [differently](#).

1) Install [twofing](#):

```
mkdir ~/temp cd ~/temp wget http://plippo.de/dwl/twofing/twofing-0.1.2.tar.gz
```

That should report that "twofing-0.1.2.tar.gz" was saved.

Now we'll add some needed packages, if any of these are already installed it's OK. We'll update first, and then install them with the following commands:

```
sudo apt-get update
sudo apt-get install build-essential libx11-dev libxtst-dev libxi-dev
x11proto-randr-dev libxrandr-dev
```

Now that those are in place we can extract the downloaded twofing-0.1.2.tar.bz file and compile the binary using "make":

```
tar -xvzf twofing-0.1.2.tar.gz
cd twofing-0.1.2
make
```

Now copy "twofing" to /usr/bin:

```
sudo cp twofing /usr/bin/
```

2) Create a .rules file in "/etc/udev/rules.d". It can be done via terminal from Raspberry Pi itself:

```
sudo nano /etc/udev/rules.d/70-touchscreen-waveshare.rules
```

or by writing directly to SD card offline. I use "[Linux File Systems for Windows by Paragon Software](#)" since I use Windows on my laptop.

The file content has to be following:

```
SUBSYSTEMS=="usb",ACTION=="add",KERNEL=="event*",ATTRS{idVendor}=="0eef",ATTRS{idProduct}=="0005",SYMLINK+="twofingtouch",RUN+="/bin/chmod a+r /dev/twofingtouch"
KERNEL=="event*",ATTRS{name}=="WaveShare WS170120",SYMLINK+="twofingtouch",RUN+="/bin/chmod a+r /dev/twofingtouch"
```

3) Install some packages to auto calibrate:

```
sudo apt install xserver-xorg-input-evdev xinput-calibrator
```

4) Add X11 configurations by opening 90-touchinput.conf:

```
sudo nano /usr/share/X11/xorg.conf.d/90-touchinput.conf
```

The file content has to be following:

```
Section "InputClass"
    Identifier "calibration"
    Driver "evdev"
    MatchProduct "WaveShare WS170120"
    MatchDevicePath "/dev/input/event*"
    Option "Emulate3Buttons" "True"
    Option "EmulateThirdButton" "1"
    Option "EmulateThirdButtonTimeout" "750"
    Option "EmulateThirdButtonMoveThreshold" "30"
EndSection
```

Open 10-evdev.conf:

```
sudo nano /usr/share/X11/xorg.conf.d/10-evdev.conf
```

and add following section in the end:

```
Section "InputClass"
    Identifier "evdev touchscreen catchall"
    MatchIsTouchscreen "on"
    MatchDevicePath "/dev/input/event*"
EndSection
```

```

        Driver "evdev"
        Option "EmulateThirdButton" "1"
        Option "EmulateThirdButtonTimeout" "750"
        Option "EmulateThirdButtonThreshold" "30"
    EndSection

```

Finally, open 40-libinput.conf:

```
sudo nano /usr/share/X11/xorg.conf.d/40-libinput.conf
```

and add following section in the end:

```

Section "InputClass"
    Identifier "calibration"
    Driver "evdev"
    MatchProduct "WaveShare WS170120"
    Option "EmulateThirdButton" "1"
    Option "EmulateThirdButtonTimeout" "750"
    Option "EmulateThirdButtonMoveThreshold" "30"
EndSection

```

5) Install udev rules :

```
sudo nano /etc/udev/rules.d/ 98-input-tagging.rules
```

The file content has to be following:

```

ACTION=="add", KERNEL=="event*", SUBSYSTEM=="input", TAG+="systemd", ,
ENV{SYSTEMD_ALIAS}+="/sys/subsystem/input/devices/${ID_SERIAL}"

```

6) Application on startup :

```
nano ~/.config/lxsession/LXDE-pi/autostart
```

add following line in the end:

```
@/usr/bin/twofing
```

7) Reboot.

For a different device you will need to find several parameters such as:

```

ATTRS{idVendor}=="0eeef",
ATTRS{idProduct}=="0005"
ATTRS{name}=="WaveShare WS170120"
MatchProduct "WaveShare WS170120"

```

Use:

```
lsusb
```

command in terminal to list usb devices. Make sure touchscreen is connected to Raspberry Pi. The command returns idVendor and idProduct, for example:

```
Bus 001 Device 002: ID 0eeef:0005 D-WAV Scientific Co., Ltd
```

Use:

```
xinput list
```

command in terminal to find input devices names.

For reference:

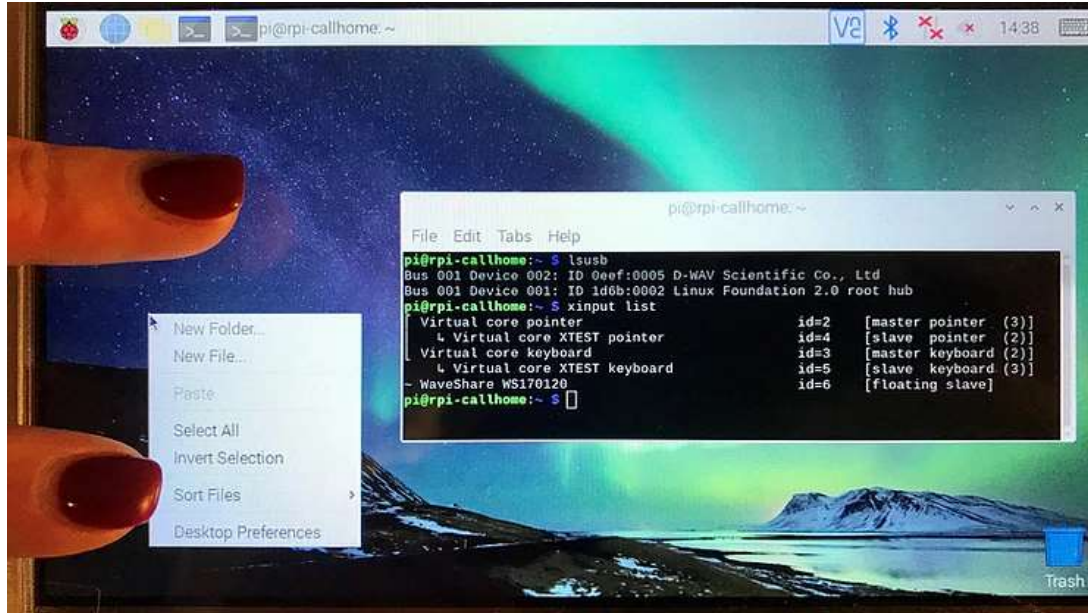
Hardware setup:

[Raspberry Pi 3A+](#)

[Waveshare 7" HDMI LCD type C](#)

Software:

Raspbian Buster full, [ref. date 2020-02-14](#)



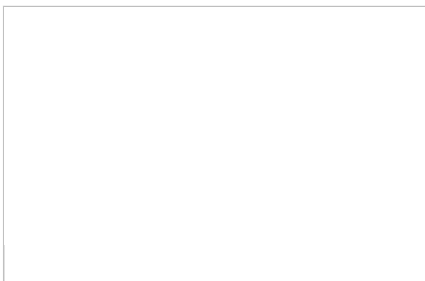
#twofing #touchscreen #raspberrypi

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