



3D Gesture for Pi - <https://www.elektor.com/3d-gesture-for-pi>

In this document you can find instructions to help you get started with your 3D gesture for Pi.

Connect the 3D Gesture for Pi with Raspberry Pi

Enable I²C on Raspberry Pi

1. Run `sudo raspi-config`
2. Use the down arrow to select 5 Interfacing Options.
3. Arrow down to P5 I²C.
4. Select yes when it asks you to enable I²C.
5. Select yes if it asks about automatically loading the kernel module.
6. Use the right arrow to select the button.
7. Select yes when it asks to reboot.

Install ncurses

Download ncurses from <https://invisible-mirror.net/archives/ncurses/>

1. `cd ~`
2. `wget https://invisible-mirror.net/archives/ncurses/ncurses-6.1.tar.gz`

Install ncurses

1. `tar -xvf ncurses - 6.1.tar.gz`
2. `cd ncurses - 6.1 /`
3. `./configure`
4. `make`
5. `sudo make install`

Check if ncurses is installed correctly

1. `ncurses6 - config --version`

Run Demo

Install `mgc3103` and run `mgc3103`

1. `cd ~`
2. `git clone https://github.com/Seeed-Studio/Seeed_mgc3x30.git`
3. `cd Seeed_mgc3x30`
4. `make clean && make`
5. `./mgc3130`

Example Output

```
1. * Position X : 65534 *
2. * Position Y : 0 *
3. * Position Z : 38465 *
4. * * *
5. * Gesture : *
6. * * *
7. * Airwheel angle : -1530 *
8. * * *
9. * Touch electrode : *
10. * Tap electrode : *
11. * Double Tap electrode : *
12. * * *
```

- **Position X/Y/Z:** Lower left corner is X=0, Y=0. Z is the height. Max is 65535.
- **Gesture:** Wave your hands over the module. You can see the wave direction as West to East, East to West, South to North and North to South.
- **Airwheel:** The number will increase with clockwise direction and reduce with counterclockwise direction. It will have some delay on the display.
- **Touch electrode:** Put your finger on the specific area; you will get Center, East, West, South, and North.
- **Tap electrode:** Tap your finger on the specific area; you will get Center, East, West, South, and North.
- **Double Tap electrode:** Double Tap your finger on the specific area; you will get Center, East, West, South, and North.