



3D Gesture & Tracking Shield for Raspberry Pi (MGC3130)

SKU 103100083

This shield is based on Microchip MGC3130 chip, which enables the Raspberry Pi with 3D gesture recognition and motion tracking function.

Tip

This product is fully compatible with Raspberry Pi 4 (1GB, 2GB,4GB) and hopes you enjoy hacking with Pi 4 and all of other Pi 4 accessories.

This shield is based on Microchip MGC3130 chip, which enables the Raspberry Pi with 3D gesture recognition and motion tracking function. It can capture x y z position information, can also do proximity sensing and touch sensing, support tap and double click.

As shown in the figure below, the recognition area is divided into two parts: the strip area distributed around and a central panel.

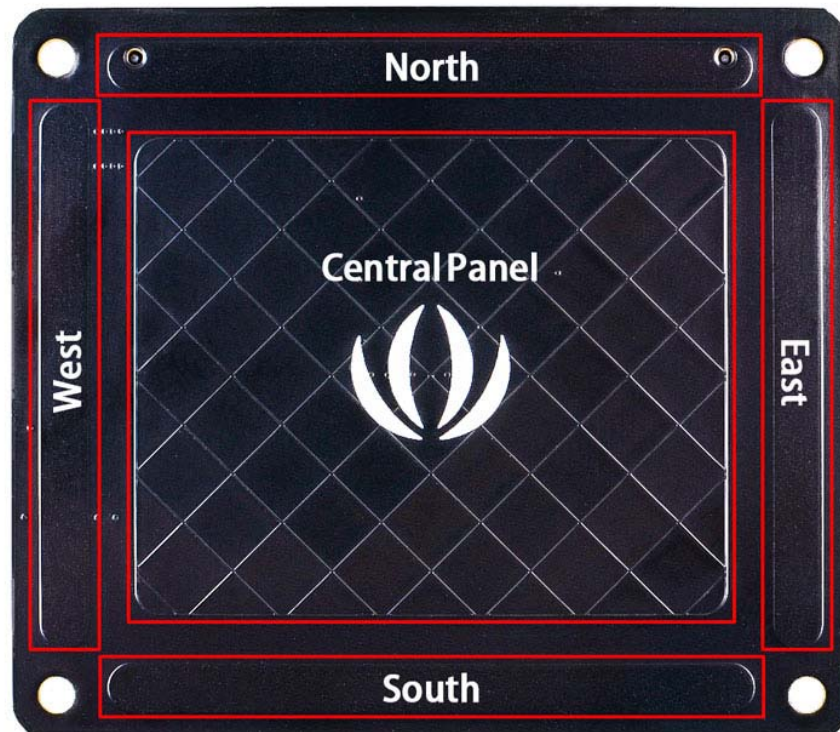
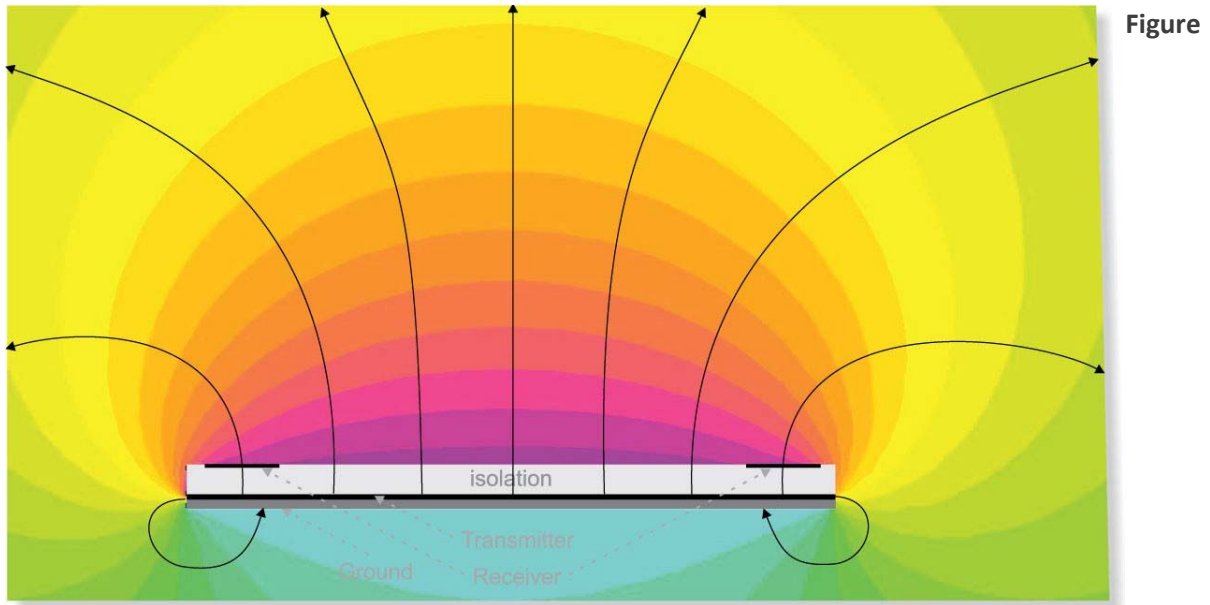


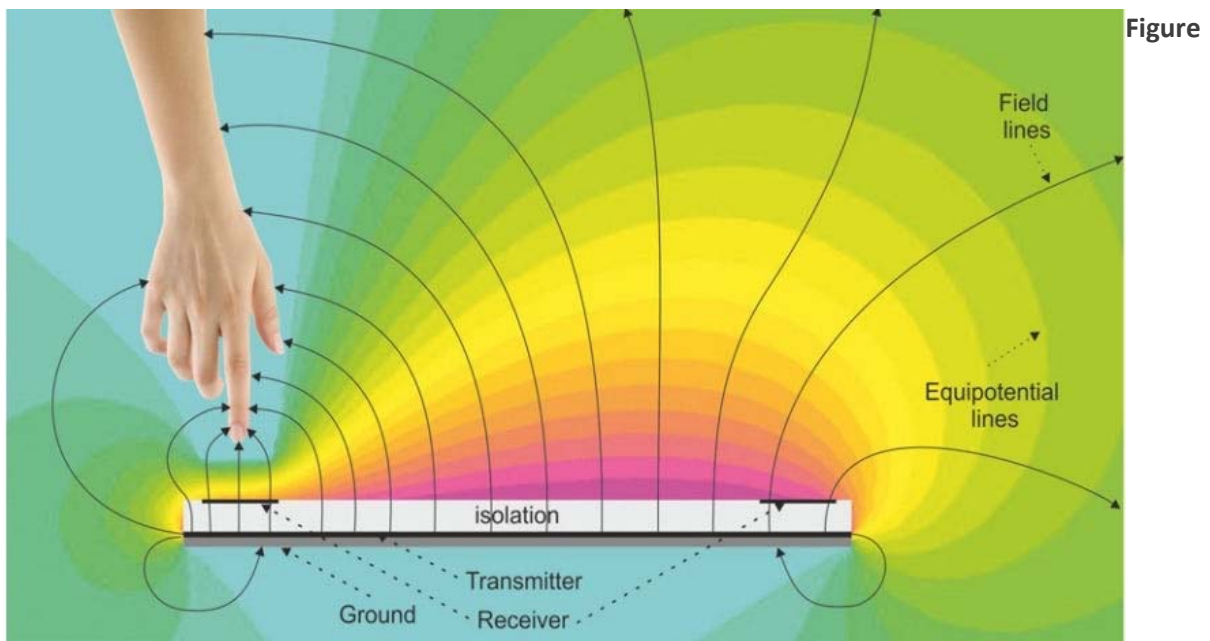
Figure 1. *sense area*

The strip areas can sense the orientation change, including the North, South, West, and East. The central area can sense touch, tap, double click, and gestures in the air above. That's why we call it 3D Gesture & Tracking Shield, you don't even need to touch the central area directly, just wave your hand above the central area, and this shield can sense your movements.

Thanks to the Microchip's patented GestIC® technology, this shield utilizes electrical near-field sensing to detect movements. The shield generates a magnetic field above the central panel when the hand approaches, it will interfere with the magnetic field, and the magnetic field receiver below the shield can detect the change.



2. Magnetic field *without hand*



3. Magnetic field *with a hand*

This hat communicates with Raspberry Pi via the I2C interface, also we have reserved a Grove I2C connector in case you need to work with other modules.

What an amazing module, with the help it, you can use gestures to control lights, TV, speakers... Just unleash your imagination and create more magical projects.

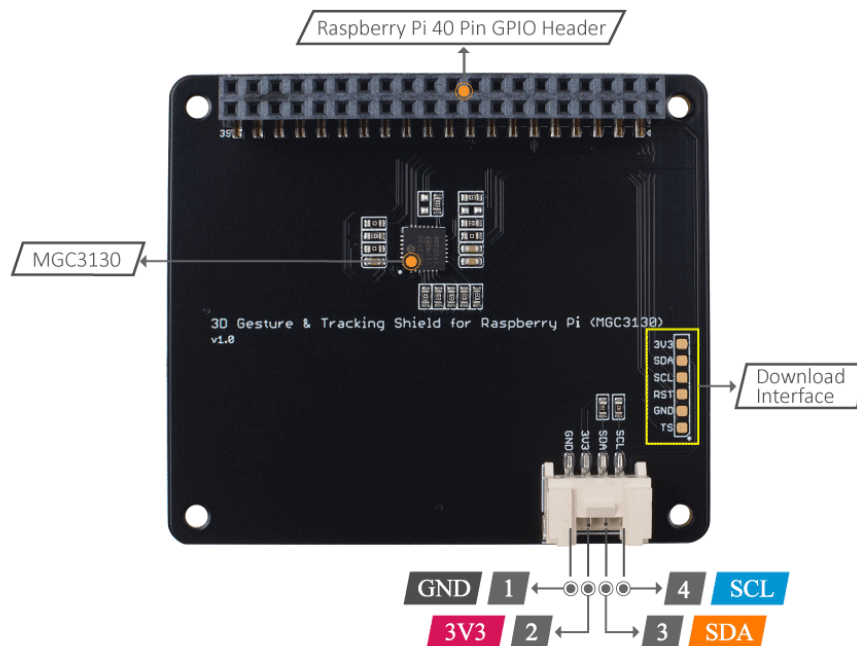
Features

- Recognition of 3D Hand Gestures and x, y, z Positional Data
- Proximity and Touch Sensing
- Built-in Colibri Gesture Suite (running on chip)
- Advanced 3D Signal Processing Unit
- Detection Range: 0 to 10 cm
- On-chip Auto Calibration
- Compatible with various models of Raspberry Pi 2, 3.

Applications

- Notebooks/Keyboards/PC Peripherals
- Home Automation
- Game Controllers
- Audio Control

Hardware Overview



- 1** : Connect to the GND of Raspberry pi
- 2** : 3.3v
- 3** : Data pin of I2C
- 4** : Clock pin of I2C

Figure 4. hardware overview

ECCN/HTS

ECCN	EAR99
HSCODE	8517709000
UPC	

