



# Grove - I2C Touch Sensor User Manual

Release date: 2015/9/22

Version: 1.0

Wiki: [http://www.seeedstudio.com/wiki/Grove - I2C Touch Sensor](http://www.seeedstudio.com/wiki/Grove_-_I2C_Touch_Sensor)

Bazaar: [http://www.seeedstudio.com/depot/Grove-I2C-Touch-Sensor-p-840.html?cPath=85\\_94](http://www.seeedstudio.com/depot/Grove-I2C-Touch-Sensor-p-840.html?cPath=85_94)

## Document Revision History

| <b>Revision</b> | <b>Date</b>  | <b>Author</b> | <b>Description</b> |
|-----------------|--------------|---------------|--------------------|
| 1.0             | Sep 22, 2015 | jiankai.li    | Create file        |
|                 |              |               |                    |

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### *Disclaimer*

*For physical injuries and possessions loss caused by those reasons which are not related to product quality, such as operating without following manual guide, natural disasters or force majeure, we take no responsibility for that.*

*Under the supervision of Seeed Technology Inc., this manual has been compiled and published which covered the latest product description and specification. The content of this manual is subject to change without notice.*

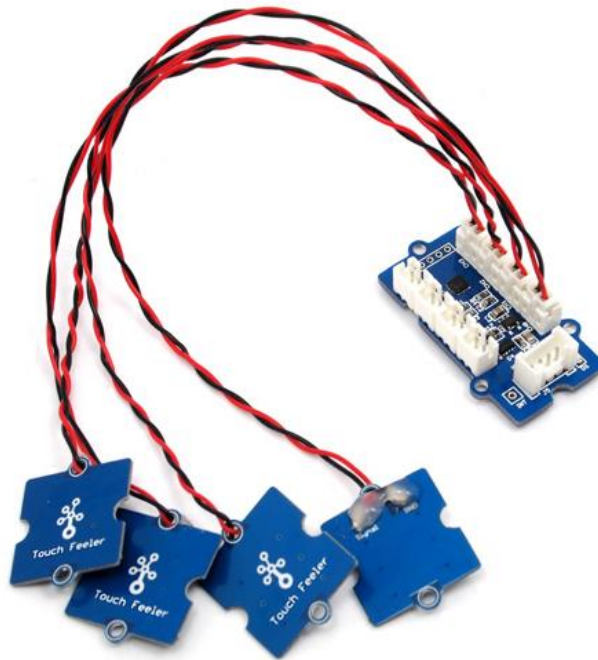
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## 1. Introduction

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The I2C Touch Sensor is based on FreeScale MPR121, it feels the touch or proximity of human being fingers. This sensor include 2 parts: one Touch Sensor controller, and 4 finger feelers. Insert the connectors of feelers into base of Sensor controller, and you can begin your touch controlling.



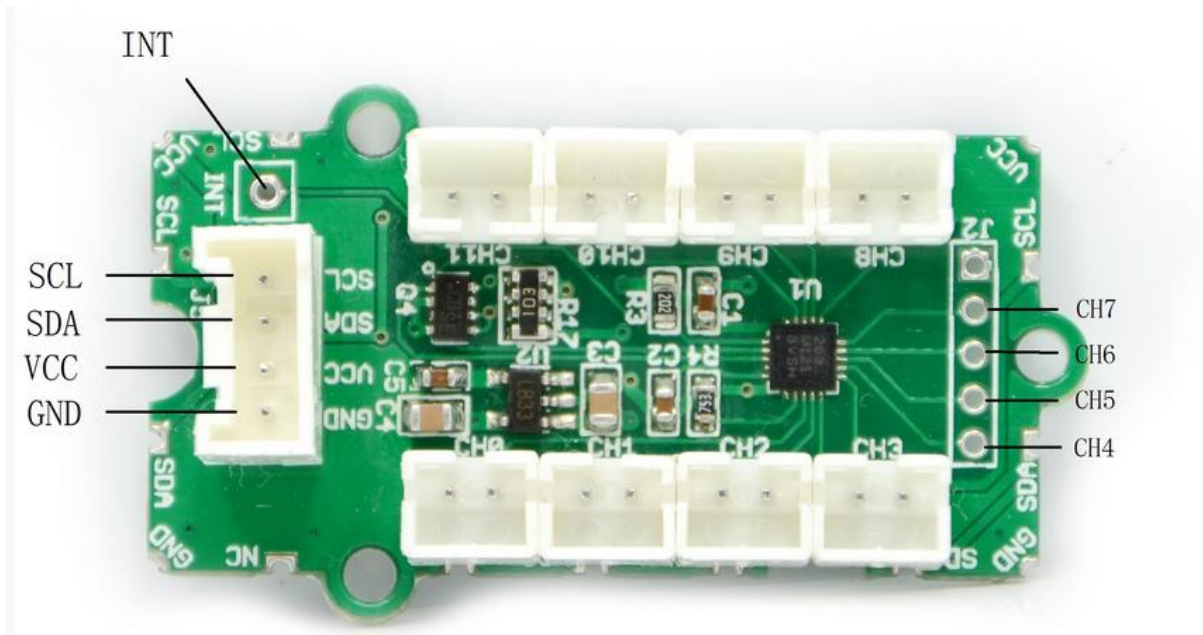
## 2. Specification

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- Operating Voltage: 3 - 5.5V
- Standby Mode Current: 2uA
- Touch Pads: 12 Pads
- Communicating Protocol: I2C
- I2C Address: 0x5A - 0x5D

### 3. Pin Description

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The INT pin has to be led out by customers themselves if customers want to use the interrupt pin of MPR121.

The CH4~CH11 are for customer expanding the function, there are 4 feelers within the pack. If you needs more, you can make the feelers by yourself or buy them in the [www.seeedstudio.com](http://www.seeedstudio.com)

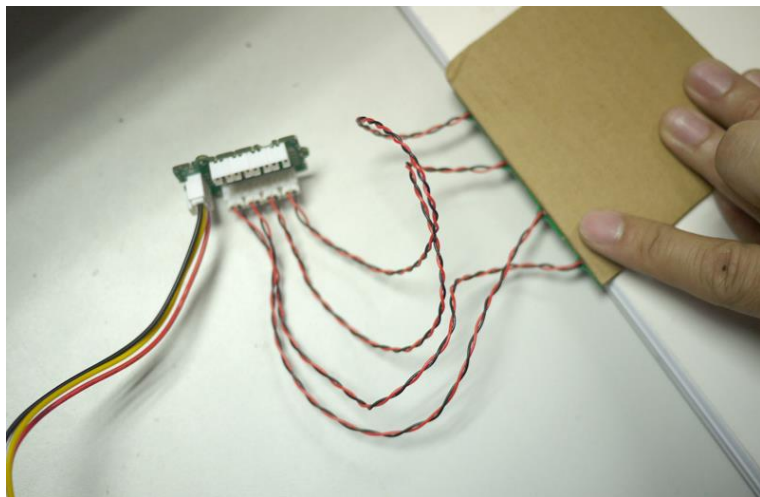
The wires of feelers are twisted to reduce the impact of environment. The black(ground) wire can be cut off if high sensitivity is needed.

## 4. Usage

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**NOTE:** Because each electrode needs to be auto-configured by the MPR121 when power up and there is no power reset on the touch sensor controller, Every time you insert or extract a feeler you need to reset the power of Seeeduino.

The feelers can also feel the human being fingers with something between, that's to say, you do not need to touch the feelers with your fingers indeed.



With a paperboard about 3 mm thick, the feeler can feel the touch of fingers, makes it a good solution for many applications.



## 5. Resources

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- [I2C Touch Sensor Library](#)
- [I2C Touch Sensor eagle files\(v1.1\).zip](#)
- [I2C Touch Sensor PDF](#)
- [How to detect finger touch?](#)
- [I2C Touch Sensor Datasheet](#)

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