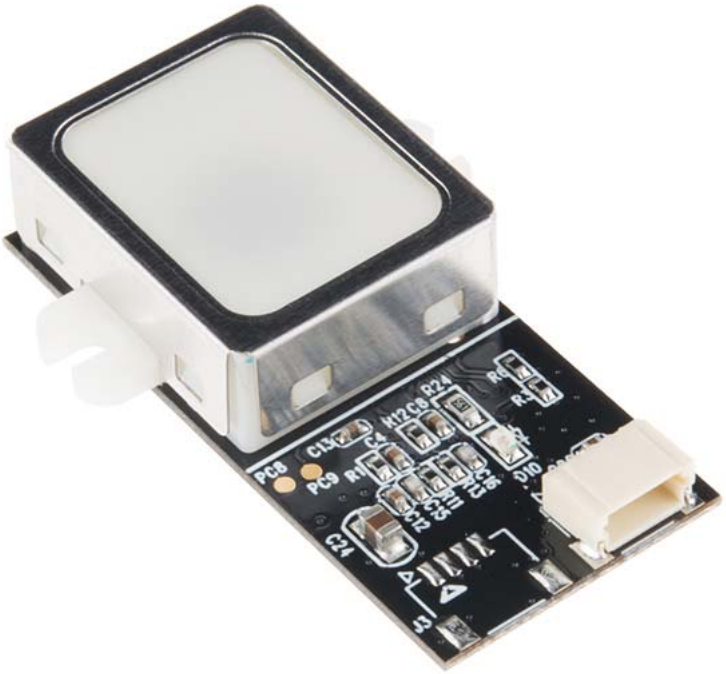
Fingerprint Scanner - TTL (GT-511C3)

SEN-11792

★★★½☆ 10



$49.95

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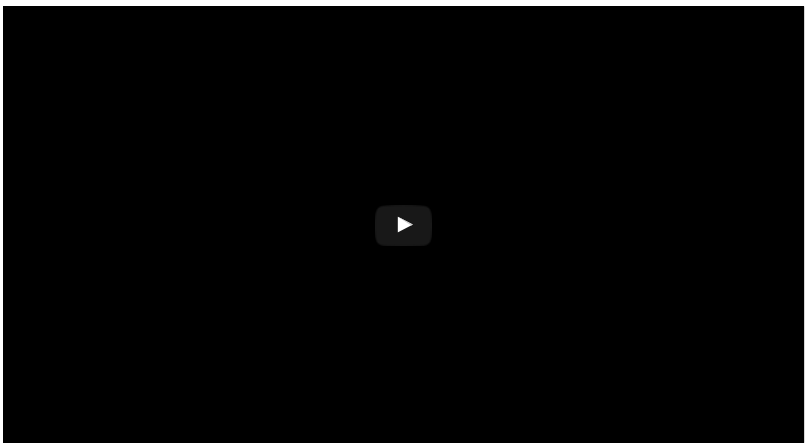
Description: Fingerprint scanners are awesome. Why use a key when you have one right at the tip of your finger? Unfortunately, they're usually unreliable or difficult to implement. Well not anymore! We've found this great fingerprint module from ADH-Tech that communicates over TTL Serial so you can easily embed it into your next project.

The module itself does all of the heavy lifting behind reading and identifying the fingerprints with an on-board optical sensor and 32-bit CPU. All you need to do is send it simple commands. To get started, just register each fingerprint that you want to store by sending the corresponding command and pressing your finger against the reader three times. The fingerprint scanner can store different fingerprints and the database of prints can even be downloaded from the unit and distributed to other modules. As well as the fingerprint "template," the analyzed version of the print, you can also retrieve the image of a fingerprint and even pull raw images from the optical sensor!

This is the updated version of the GT-511 which has an increased memory capacity. The module can store up to 200 different fingerprints (that's 10x more than the old version!) and is now capable of 360° recognition.

The module is small and easy to mount using two mounting tabs on the side of the sensor. The on-board JST-SH connector has four signals: Vcc, GND, Tx, Rx. A compatible JST-SH pigtail can be found in the related items below. Demo software for PC is available in the documents below, simply connect the module to your computer using an FTDI Breakout and start the software to read fingerprints!

Note: The module does not come with a cable, check below for an appropriate one.



Dimensions: 37 x 17 x 9.5 mm

Features:

- High-Speed, High-Accuracy Fingerprint Identification using the SmackFinger 3.0 Algorithm
- Download Fingerprint Images from the Device
- Read and Write Fingerprint Templates and Databases
- Simple UART protocol (Default 9600 baud)
- Capable of 1:1 Verification and 1:N Identification

Documents:

- Datasheet
- Demo Software
- Garage Door Opener Tutorial (Instructables)
- GitHub

Recommended Products

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SPARKFUN RECOMMENDED
SparkFun RedBoard - Programmed with Arduino
DEV-12757
$19.95
★★★★½ 112

SPARKFUN RECOMMENDED
Arduino Uno - R3
DEV-11021
$24.95
★★★★½ 83

SPARKFUN RECOMMENDED
SparkFun FTDI Basic Breakout - 5V
DEV-09716
$14.95
★★★★½ 81

SPARKFUN RECOMMENDED
SparkFun RFID Starter Kit
KIT-13198
$49.95
★★★★½ 9

COMMENTS **144** | **REVIEWS** ★★★½☆ **10**

Customer Reviews

★★★½☆ 3.6 out of 5

Based on 10 ratings:

5 star	4
4 star	2
3 star	2
2 star	0
1 star	2

1 of **1** found this helpful:

★☆☆☆☆ Some fuctions are not working

about a year ago by Member #658951 ✔ verified purchaser

In my projects I need to use functions GetTemplate and SetTemplate. Tech.support said that everythting works, but it's wrong.

Fuctions GetTemplate and SetTemplate are not working on arduino…

It;s very sad.

1 of **1** found this helpful:

★★★☆☆ It scans...

about 11 months ago by Member #391234 ✔ verified purchaser

OK. The specs are light on this one even with the 36-page spec sheet. I had to request the hardware hookup “FPS_Connection.jpg” from Sparkfun; shouldn’t that be on the site? On the product’s page, there is a note that says “A compatible JST-SH pigtail can be found in the related items below,” but the one I picked was wrong. Plus you need a 6-pin, which is not mentioned. There should really be a ready-made JST to FTDI cable for this product. The empty pad next to the JST doesn’t look like the photo on the site. It may be another JST pad which would make direct soldering a snap! ‘Still looking into that one. Sparkfun does not know for sure. Then there’s the code. The OEM code is very similar to the GitHub code and parsing through that was a bit of a chore, but hey; it saves a bunch of coding time and works right out of the box! Bonus! Overall, the scanner portion is a bit large, but is scans and recognizes prints very well.

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5 of **6** found this helpful:

★★★★☆ Awesome little sensor!

about 2 years ago by Member #196150 ✔ verified purchaser

This is a nice little fingerprint scanner. The only reason I’m giving this 4 stars is that there is no indication of it being 3V3. It does have a 3V3 regulator on it, though. Also, it has some sort of protection against overvolting a pin. I accidentally supplied 5V to a 3V3 pin, and it turned off. I removed the wire, and it worked again.

★★★★☆ performance

about 5 months ago by Member #746823 ✔ verified purchaser

The fingerprint its working perfectly and we are happy continue with great job

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0 of **1** found this helpful:

★★★☆☆ don't forget to buy the damn JST cable

about a year ago by Member #12826 ✔ verified purchaser

Got 2 pieces. Forgot to buy the damn connector. Tried to desolder the connector to solder wires (I needed to prototype quickly). Destroyed the PCB tracks (a bit of heat or just “staring at it” is enough to destroy the tracks ;-)

with a sharp & hot knife, was able to expose the connector pins and solder wire-wrap wires to the pins. It was enough to test it. Looks promising, recognized rotated fingerprints. Documentation does not show the pinouts though you can find it elsewhere.

A bit overpriced because the original , in Taiwan costs $17 bucks.

DON’T FORGET TO BUY THE CONNECTOR!!!

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0 of **1** found this helpful:

★★★★★ Nice fingerprint scanner

about 2 years ago by Member #233851 ✔ verified purchaser

Planning to use this for security access. I’ve been experimenting with it a little and find that it is sometimes finicky about registering a fingerprint but it is very accurate as far as recognition/rejection. It’s easily interfaced to a Raspberry Pi, Arduino, or Microchip PIC processor.

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0 of **1** found this helpful:

★★★★★ Works great

about a year ago by Member #99846 ✔ verified purchaser

Easy to use.

★★★★★ All OK as expected

about 9 months ago by Member #656905 ✔ verified purchaser

The communication, Invoice and delivery were Ok. Thank you, looking forward to our next cooperation. Miroslav

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★★★★★ Absolutely perfect

about a month ago by Member #862361 ✔ verified purchaser

We received the part without any problem into Switzerland. It was connected to an USB-UART VCP with CP2102 - we started the software demo - everything worked perfect without any problems. We will now create our own software for personalized project management. Thanks to the Sparkfun team. Remark: Page 39 is missing from the data sheet so we downloaded it from Taiwan.

> ROB-24601 replied on November 9, 2016:
>
> Glad you’re enjoying the unit, and thanks for the heads up regarding the datasheet. I’ve put in a request to get that updated. Happy hacking!
