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> Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.0>)

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Topic: Write template on Fingerprint sensor R305/R307 (Read 3326 times)

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**nimit393**  
(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)

 [Re: Write template on Fingerprint sensor R305/R307 \(https://forum.arduino.cc/index.php?topic=570705.msg3907038#msg3907038\)](#)

[Oct 15, 2018, 08:17 am](#) (<https://forum.arduino.cc/index.php?topic=570705.msg3907038#msg3907038>) #15

Blank sketch with Rx Tx correctly connected to that of fingerprint sensor would not work?  
The code posted by you does a very similar task, with not directly bypassing the UART commands but relaying it to different serial port.

What might be the reason for this?

(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)



Newbie

Posts: 27

Karma: 0 [[add](#)]

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=1052109;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>)

  
**nimit393**  
(<https://forum.arduino.cc>)

 [Re: Write template on Fingerprint sensor R305/R307 \(https://forum.arduino.cc/index.php?topic=570705.msg3907045#msg3907045\)](#)

#16

[cc/index.php?  
action=profile;u=1052109](https://forum.arduino.cc/index.php?topic=570705.msg3907045#msg3907045)



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action=profile;u=1052109](https://forum.arduino.cc/index.php?topic=570705.msg3907045#msg3907045))



Newbie

Posts: 27

Karma: 0 [[add](#)]

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action=karma;sa=applaud;uid=1052109;e96c0852  
54=752dce7be6feeab8bc  
0756cc23ecdaa4](https://forum.arduino.cc/index.php?topic=570705.msg3907045#msg3907045))

Oct 15, 2018, 08:25 am (<https://forum.arduino.cc/index.php?topic=570705.msg3907045#msg3907045>)

Baud rate for Cool Term can be updated to 57600.

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[J-M-L  
https://forum.arduino.cc/index.php?  
action=profile;u=438300](https://forum.arduino.cc/index.php?topic=570705.msg3907106#msg3907106)



([https://forum.arduino.cc/index.php?  
action=profile;u=438300](https://forum.arduino.cc/index.php?topic=570705.msg3907106#msg3907106))



Brattain Member

Posts: 17,211

Karma: 1165 [[add](#)]

([https://forum.arduino.cc/index.php?  
action=karma;sa=applaud;uid=438300;e96c0852  
54=752dce7be6feeab8bc  
0756cc23ecdaa4](https://forum.arduino.cc/index.php?topic=570705.msg3907106#msg3907106))

[Re: Write template on Fingerprint sensor R305/R307  
https://forum.arduino.cc/index.php?topic=570705.msg3907106#msg3907106](https://forum.arduino.cc/index.php?topic=570705.msg3907106#msg3907106)

Oct 15, 2018, 10:03 am (<https://forum.arduino.cc/index.php?topic=570705.msg3907106#msg3907106>) #17

I've seen boards behave differently when trying to use pin 0 and 1 and also have usb connected... so I'm always careful on such setup

Hello - Please do not PM me for help, others will benefit as well if you post your question publicly on the forums.

Bonjour Pas de messages privés SVP, poste dans le forum directement pour que ça profite à tous

)

nimit393  
(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)

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(https://forum.arduino.cc/index.php?  
action=profile;u=1052109  
)
```

1



## Newbie

Posts: 27

Karma: 0 [\[add\]](#)

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=1052109;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>)

**Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3907732#msg3907732>)**

Oct 15, 2018, 07:37 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3907732#msg3907732>)

#18

I extracted fingerprint template using the standard extract feature in Ada fruit library.

Redacted edition (https://auth.arduino.cc/login?client\_id=FORUM&redir=)

However, I can find 3 header message within the templates. I tried other fingerprint in the same device...all 3 have 3 header section embedded into it and long series of 0 and F. Which part of the message is actually the template which I can use and write it on to other fingerprint sensor.

Motive is to extract template and store in a central repository...which can be transmitted on to multiple sensors as the network get expanded.

nimit393  
(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)

```
(https://forum.arduino.cc/index.php?action=profile;u=1052109)
```

1



## Newbie

Posts: 27

Karma: U [add]

(<https://forum.arduino.cc>

**Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3910044#msg3910044>)**

Oct 17, 2018, 04:34 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3910044#msg3910044>)

#19

## Any updates?

c/index.php?  
(https://forum.arduino.cc)  
action=karma;sa=applau  
d;uid=1052109;e96c0852  
54=752dce7be6feeab8bc  
0756cc23ecdaa4)

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J-M-L  
(<https://forum.arduino.cc/index.php?action=profile;u=438300>)



```
(https://forum.arduino.cc/index.php?action=profile;u=438300)
```



Brattain Member  
Posts: 17 211

Karma: 1165 [add]  
(<https://forum.ardublock.net/index.php?action=karma;sa=1;uid=438300;e9e54=752dce7be6fe0756cc23ecdaa4>)

## [Re: Write template on Fingerprint sensor R305/R307 \(<https://forum.arduino.cc/index.php?topic=570705.msg3910200#msg3910200>\)](https://forum.arduino.cc/index.php?topic=570705.msg3910200#msg3910200)

Oct 17, 2018, 06:38 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3910200#msg3910200>)

#20

Post the full true output of the example - not just an extract of what you think is meaningful

Are you running this on a UNO or MEGA ?

The stray FFFFFFFF you see are just there because buffer is [initialized with plenty of FF](https://github.com/adafruit/Adafruit-Fingerprint-Sensor-Library/blob/a0dce93b2e1ee44db42d960dfbb56653a4bb7c1b/examples/show_fingerprint_templates/show_fingerprint_templates.ino#L79) ([https://github.com/adafruit/Adafruit-Fingerprint-Sensor-Library/blob/a0dce93b2e1ee44db42d960dfbb56653a4bb7c1b/examples/show\\_fingerprint\\_templates/show\\_fingerprint\\_templates.ino#L79](https://github.com/adafruit/Adafruit-Fingerprint-Sensor-Library/blob/a0dce93b2e1ee44db42d960dfbb56653a4bb7c1b/examples/show_fingerprint_templates/show_fingerprint_templates.ino#L79)) in the library

They seem to use data packets of 256 bytes but seems what you get back is actually the 128 bytes version

having multiple data packet is not impossible as you might not be able to fit all the data in one frame, so you should expect when you send a command to get many answer and at some point the last frame will include a `End of Data packet` command so that you know it's the last one

there is plenty of garbage so would need to see exactly the output on the Serial console...

The 3 frames you see are

EF01

FFFFFFFFFF

## 02 Data packet

0082 length of package = command packets + data packets + CKSUM --> 128 bytes + 2  
for checksum

056C CKSUM (this one is OK)

EF01

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nimit393  
(https://forum.arduino.cc/index.php?action=profile;u=1052109)

(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)

1

# Newbie

Posts: 27

Karma: 0 [\[add\]](#)

(<https://forum.arduino.c>

[Re: Write template on Fingerprint sensor R305/R307 \(<https://forum.arduino.cc/index.php?topic=570705.msg2911222#msg2911222>\)](https://forum.arduino.cc/index.php?topic=570705.msg2911222#msg2911222)

The attachment shows template read for 2 different fingerprints.

However when I am trying to write the same template on other location...the serial trace does not show garbage values but cool term shows. And after sending the 4 chunks of template...finally when store command is used...reply is 01 ...error when receiving data.

 [Capture.JPG](https://forum.arduino.cc/index.php?action=dlattach;topic=570705;0;attach=278356) (<https://forum.arduino.cc/index.php?action=dlattach;topic=570705;0;attach=278356>)

147 33 KB

11,55 KB

downloaded 102 times

[Extract.txt](https://forum.arduino.cc/index.php?action=dlattach;topic=570705.0;attach=278358) (<https://forum.arduino.cc/index.php?action=dlattach;topic=570705.0;attach=278358>)

2.4 KB

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 [Rewrite.txt](https://forum.arduino.cc/index.php?action=dlattach;topic=570705.0;attach=278359)

<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=1052109;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>

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nimit393  
(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)



(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)



Newbie

Posts: 27

Karma: 0 [[add](#)]

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=1052109;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>)

[Re: Write template on Fingerprint sensor R305/R307](#) (<https://forum.arduino.cc/index.php?topic=570705.msg3911263#msg3911263>)

Oct 18, 2018, 04:54 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3911263#msg3911263>)

#22

---

Issue resolved...I am now able to write template from external source. You can ignore the above post.

---

J-M-L  
(<https://forum.arduino.cc/index.php?action=profile;u=438300>)



(<https://forum.arduino.cc/index.php?action=profile;u=438300>)



Brattain Member

Posts: 17,211

[Re: Write template on Fingerprint sensor R305/R307](#) (<https://forum.arduino.cc/index.php?topic=570705.msg3911284#msg3911284>)

Oct 18, 2018, 05:11 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3911284#msg3911284>)

#23

---

Would be fair to explain what you did and how you solved it for everyone having the same question in the future

---

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Karma: 1165 [add]  
(<https://forum.arduino.cc>)  
(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=438300;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>)

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nimit393  
(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)



(<https://forum.arduino.cc/index.php?action=profile;u=1052109>)



Newbie

Posts: 27

Karma: 0 [add]  
(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=1052109;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>)

Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3911403#msg3911403>)

Oct 18, 2018, 06:34 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3911403#msg3911403>) #24

1. First step to extract fingerprint from sensor is to load the desired template number to either buffer 1 or 2.
2. Once the template is loaded into buffer, read the template from buffer.
3. Template size might vary, hence, the whole template might be broken down into multiple bits and part.
4. This template can now be stored onto other device and can be reused to write the same template into similar sensor.
5. Commands for all the above functions are standard and can be viewed in the document shared in this blog post above.
6. Example of template extracted can also be viewed in the text files shared in the previous post.

J-M-L  
(<https://forum.arduino.cc/index.php?action=profile;u=438300>)



(<https://forum.arduino.cc/index.php?action=profile;u=438300>)



Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3911616#msg3911616>)

Oct 19, 2018, 08:44 am (<https://forum.arduino.cc/index.php?topic=570705.msg3911616#msg3911616>) #25

Thx - makes sense :-)

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Brattain Member  
(<https://forum.arduino.cc>)

Posts: 17,211

Karma: 1165 [[add](#)]

(<https://forum.arduino.cc/index.php?>

[action=karma;sa=applaud;uid=438300;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4](#))

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 nimit393  
(<https://forum.arduino.cc/index.php?>  
[action=profile;u=1052109](#))



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Newbie

Posts: 27

Karma: 0 [[add](#)]

(<https://forum.arduino.cc/index.php?>

[action=karma;sa=applaud;uid=1052109;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4](#))

 Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3925582#msg3925582>)

Oct 30, 2018, 03:40 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3925582#msg3925582>) #26

Hi,

Trying to send data over serial. The data is getting transmitted as ASCII equivalent when read over the other arduino with code shared by you in earlier post(one which displays the HEX values of the data received over serial). However, correct HEX value get displayed on the serial monitor of the arduino on which this code is running.

Code: [[Select](#)]

```
/*
 SD card read/write
```

This example shows how to read and write data to and from an SD card file  
The circuit:

- \* SD card attached to SPI bus as follows:
- \*\* MOSI - pin 11
- \*\* MISO - pin 12
- \*\* CLK - pin 13

 ABCDEF.TXT (<https://forum.arduino.cc/index.php?action=dlattach;topic=570705.0;attach=279969>)

1.02 KB

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 nimit393  
(<https://forum.arduino.cc/index.php?>  
[action=profile;u=1052109](#))



(<https://forum.arduino.c>

 Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3925788#msg3925788>)

Oct 30, 2018, 06:18 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3925788#msg3925788>) #27

Understood my mistake...should had used Serial.write instead of Serial.print

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)

 Newbie

Posts: 27

Karma: 0 [add]

(<https://forum.arduino.cc>  
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d;uid=1052109;e96c0852  
54=752dce7be6feeab8bc  
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J-M-L  
(<https://forum.arduino.cc>  
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action=profile;u=4383  
00)



(<https://forum.arduino.cc>  
c/index.php?  
action=profile;u=438300  
)

 Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3925828#msg3925828>)

#28

Oct 30, 2018, 06:41 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3925828#msg3925828>)



 Brattain Member

Posts: 17,211

Karma: 1165 [add]

(<https://forum.arduino.cc>  
c/index.php?  
action=karma;sa=applau  
d;uid=438300;e96c0852  
54=752dce7be6feeab8bc  
0756cc23ecdaa4)

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marcoas  
(<https://forum.arduino.cc>  
c/index.php?  
action=profile;u=10829  
71)

 Re: Write template on Fingerprint sensor R305/R307 (<https://forum.arduino.cc/index.php?topic=570705.msg3938287#msg3938287>)

#29

Nov 08, 2018, 09:27 pm (<https://forum.arduino.cc/index.php?topic=570705.msg3938287#msg3938287>)

@nimit393, Can you show us, the code for write template on sensor, please?

Quote from: nimit393 on Oct 18, 2018, 06:34 pm (<https://forum.arduino.cc/index.php?msg=3911403>)



(<https://forum.arduino.cc>)

(<https://forum.arduino.cc/index.php?action=profile;u=1082971>)

)



Newbie

Posts: 1

Karma: 1 [[add](#)]

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=1082971;e96c085254=752dce7be6feeab8bc0756cc23ecdaa4>)

- “
1. First step to extract fingerprint from sensor is to load the desired template number to either buffer 1 or 2.
  2. Once the template is loaded into buffer, read the template from buffer.
  3. Template size might vary, hence, the whole template might be broken down into multiple bits and **SIGN IN (HTTPS://AUTH.ARDUINO.CC/LOGIN?CLIENT\_ID=FORUM&RED**
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  5. Commands for all the above functions are standard and can be viewed in the document shared in this blog post above.
  6. Example of template extracted can also be viewed in the text files shared in the previous post.

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(<https://www.wireshark.org/>) (<https://github.com/arduino/arduino-team>)