

TV Out With Arduino

By [AdmRainbowBeard \(/member/AdmRainbowBeard/\)](#) in [Circuits \(/circuits/\)](#) > [Arduino \(/circuits/arduino/projects/\)](#)

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This Instructable is for those who would like to use your Arduino to output to a TV. Granted the Arduino is only powerful enough to produce a black and white picture it can still be fun to play with and useful for some projects.



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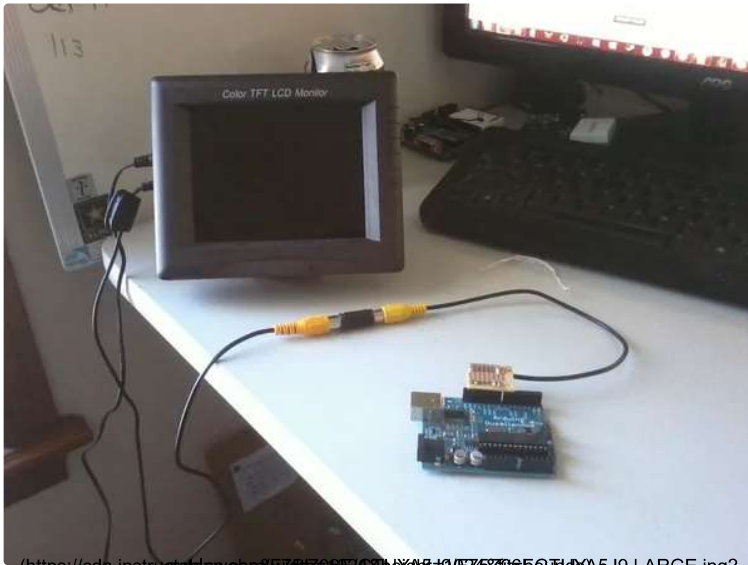
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Step 1: Item List



Things you will need:

Hardware

- Arduino
- A TV
- A Protoboard or PCB
- 2 Resistors
 - 1x 470 ohm (Yellow, Violet, Brown)
 - 1x 1k ohm (Brown, Black, Red)
- 2x 2-Pin headers (Only 3 are used but the 4th helps with stability)
- Spare RCA cord you don't mind cutting up

Software

- Arduino Software (<http://arduino.cc/en/Main/Software> (<http://arduino.cc/en/Main/Software>),)
- The TVout library (<http://code.google.com/p/arduino-tvout/> (http://code.google.com/p/arduino-tvout/downloads/detail?name=TVout_R5.91.zip&can=2&q=),)



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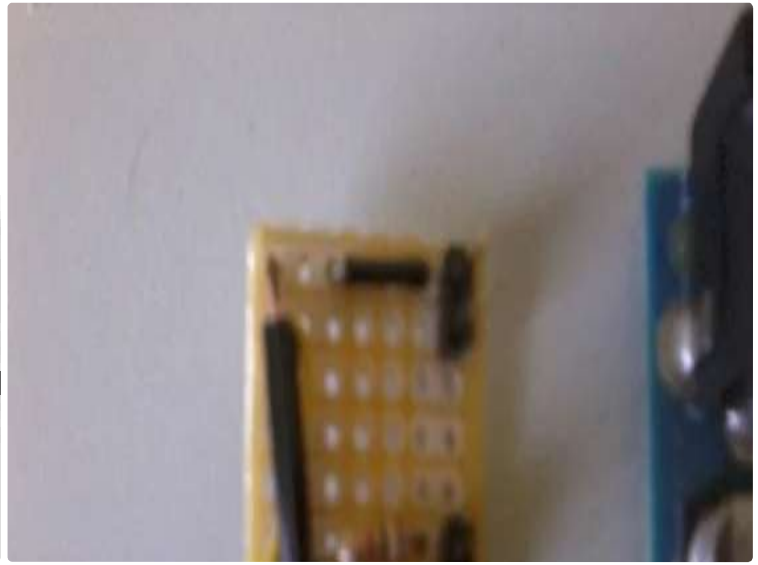
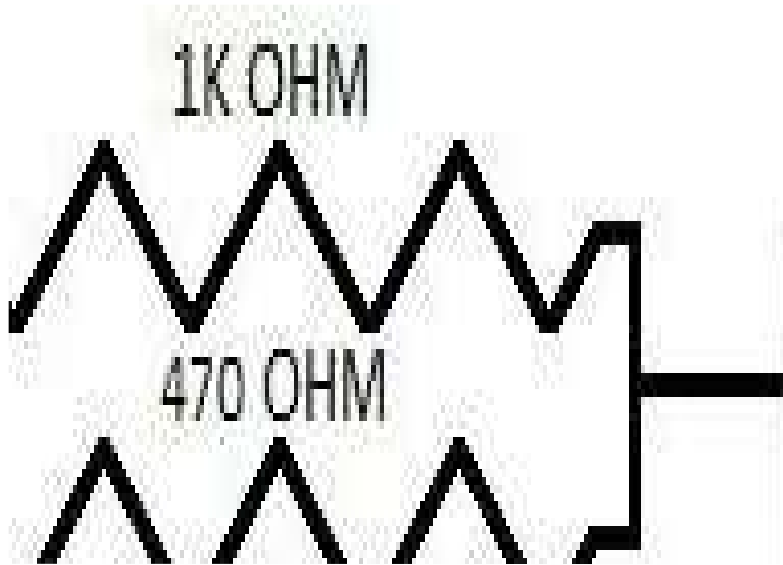
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Step 2: Assembly



Ok I had already made this connector piece before I decided to make an Instructable.. And I apologize for the poor quality of the images, my cell phone's camera isn't the best but I think you'll get the point.

I got this schematic from the TVout Libraries Google code website:

<http://code.google.com/p/arduino-tvout/> (<http://code.google.com/p/arduino-tvout/>).



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Step 3: Programming

```
Instructable_01 | Arduino 0022
File Edit Sketch Tools Help
[Icons]
Instructable_01 $
#include <TVout.h>

TVout TV;

void setup ( )
{
  TV.start_render( _NTSC );
}

void loop ( )
{
  TV.clear_screen ( );
  TV.print_str ( 30, 40, "TVout FTW!!!" );
  TV.delay ( 60 );
}
```

Done uploading.

Binary sketch size: 7130 bytes (of a 30720 byte maximum)


3





<https://code.instructables.com/EX2D2Y4/C7UM4Z16/FY2D2Y5CTIYA716-LADCE-iss2>

Now for the fun part... Programming...

When it comes to the TVout Library there is a new version but it's still in beta and I've found it to be buggy so I just use the R5.91 release ([http://code.google.com/p/arduino-tvout/downloads/detail?name=TVout_R5.91.zip&can=2&q=\(http://code.google.com/p/arduino-tvout/downloads/detail?name=TVout_R5.91.zip&can=2&q=\).](http://code.google.com/p/arduino-tvout/downloads/detail?name=TVout_R5.91.zip&can=2&q=(http://code.google.com/p/arduino-tvout/downloads/detail?name=TVout_R5.91.zip&can=2&q=).))

I'm assuming you have a basic knowledge of Arduino programming so I won't go into too much detail here.. For a complete list of commands for the TVout Library go here (<http://code.google.com/p/arduino-tvout/wiki/FDcomplete> (<http://code.google.com/p/arduino-tvout/wiki/FDcomplete>).)

 **Instructable** 2014 (<https://cdn.instructables.com/ORIG/FNR/FNXN/GTQVP4MU/FNRFNXNGTQVP4MU.tmp>)
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Step 4: Finished Product



Now this is just the start... There is so many possibilities with this, One website really shows how the Arduino can be used as a game console (<http://nootropicdesign.com/hackvision/games.html> (<http://nootropicdesign.com/hackvision/games.html>).)

Also I plan on releasing more projects to further explore uses of the Arduino and TVout library



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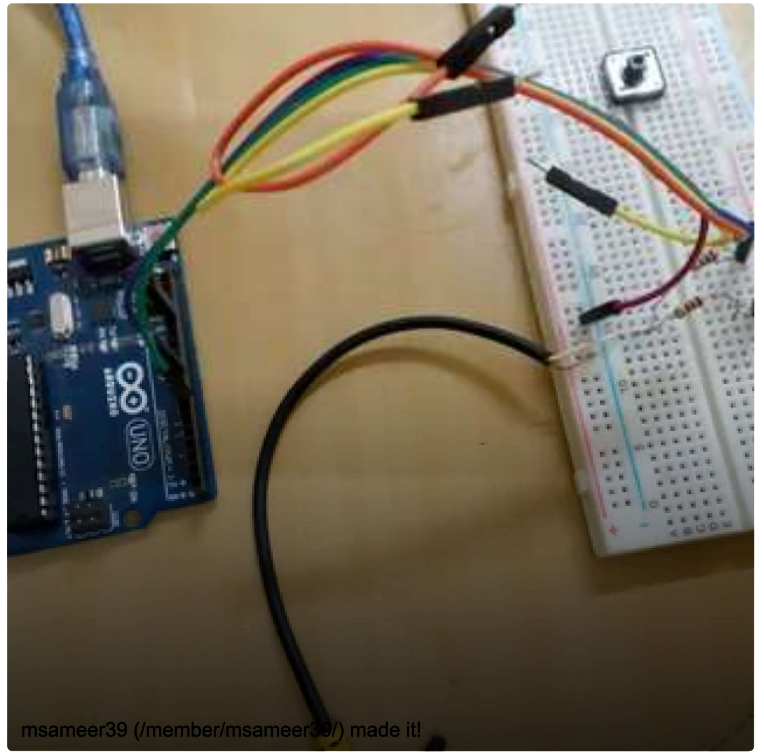
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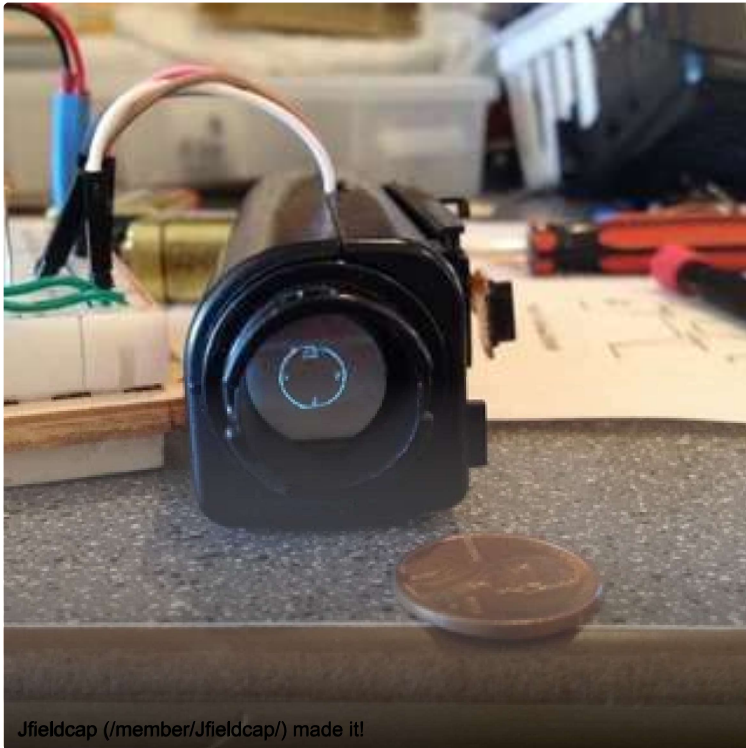
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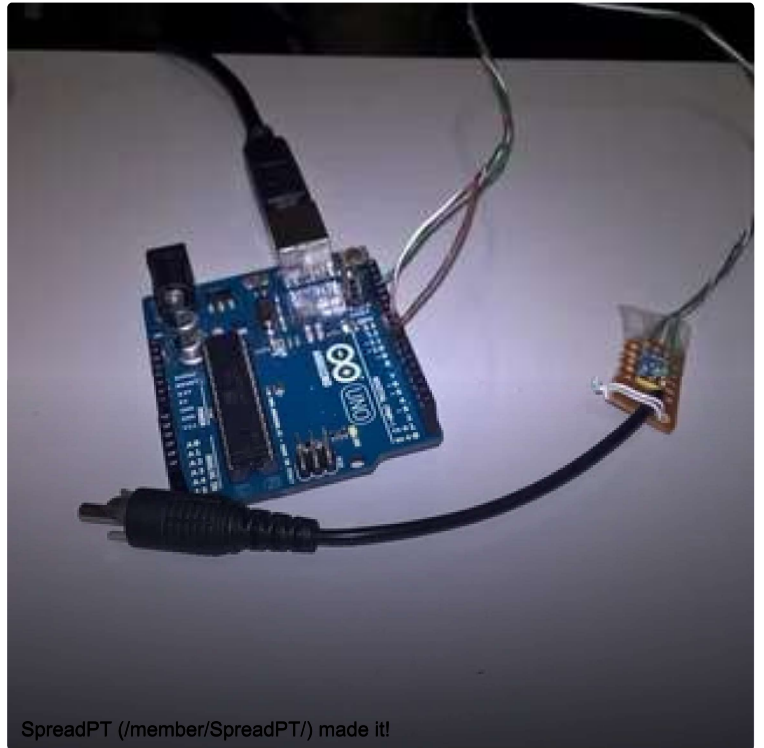
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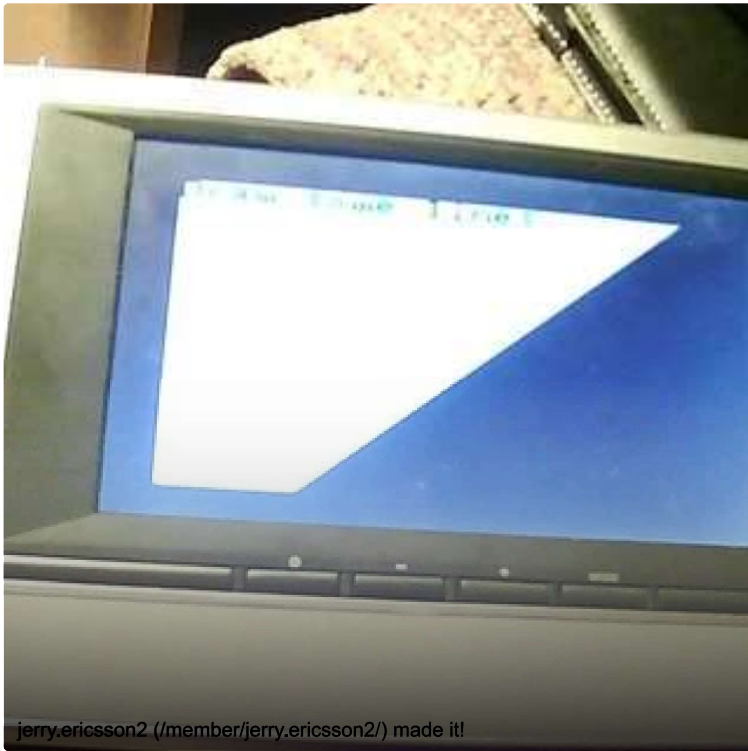
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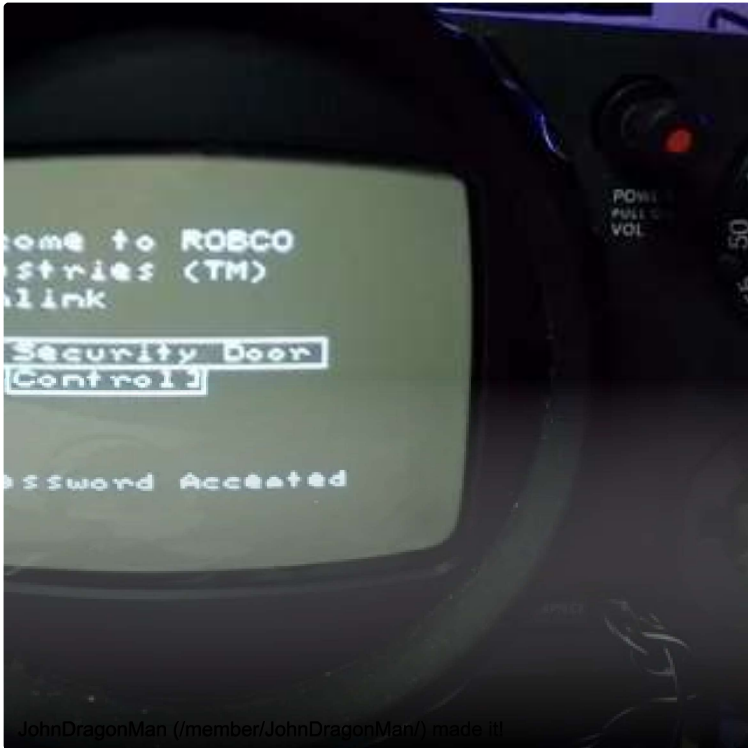
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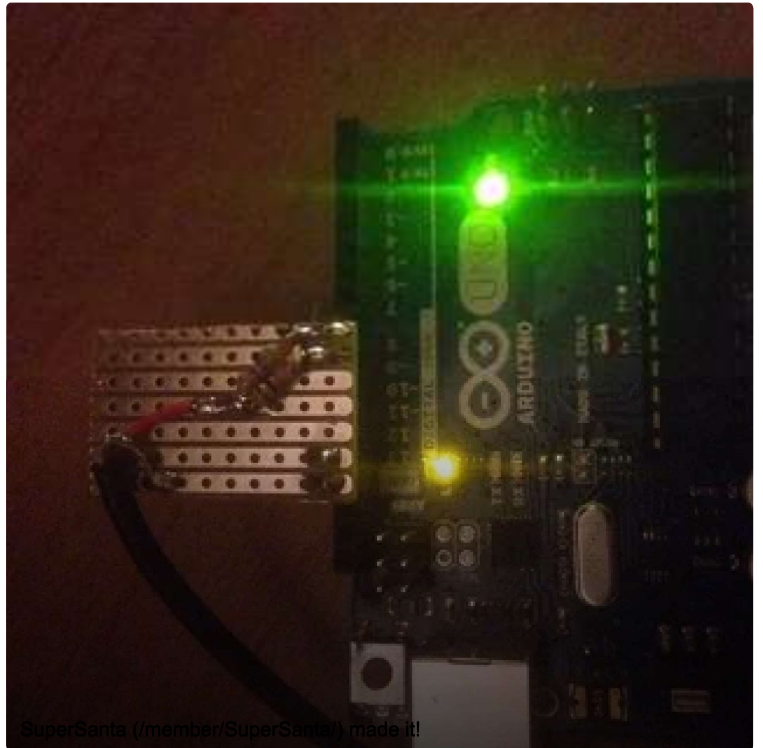
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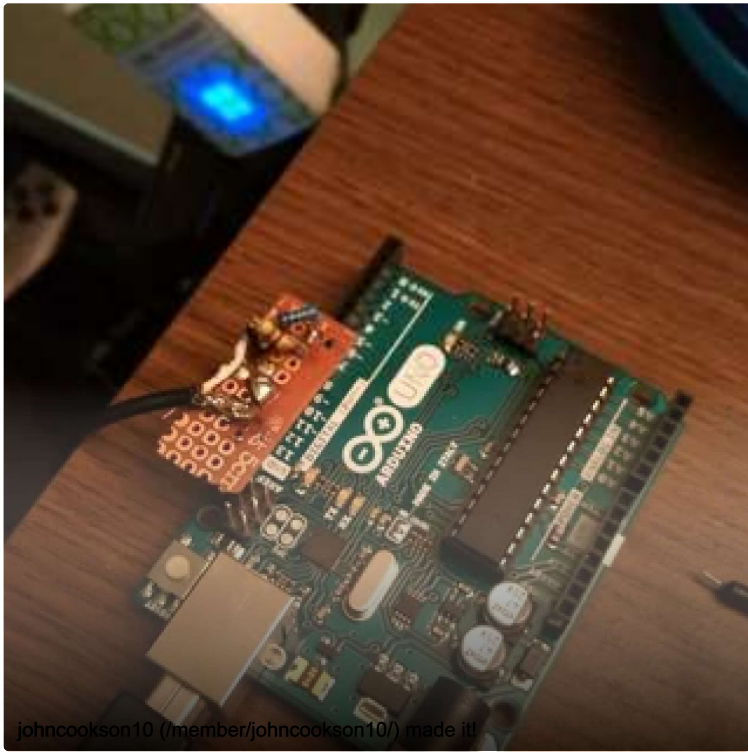
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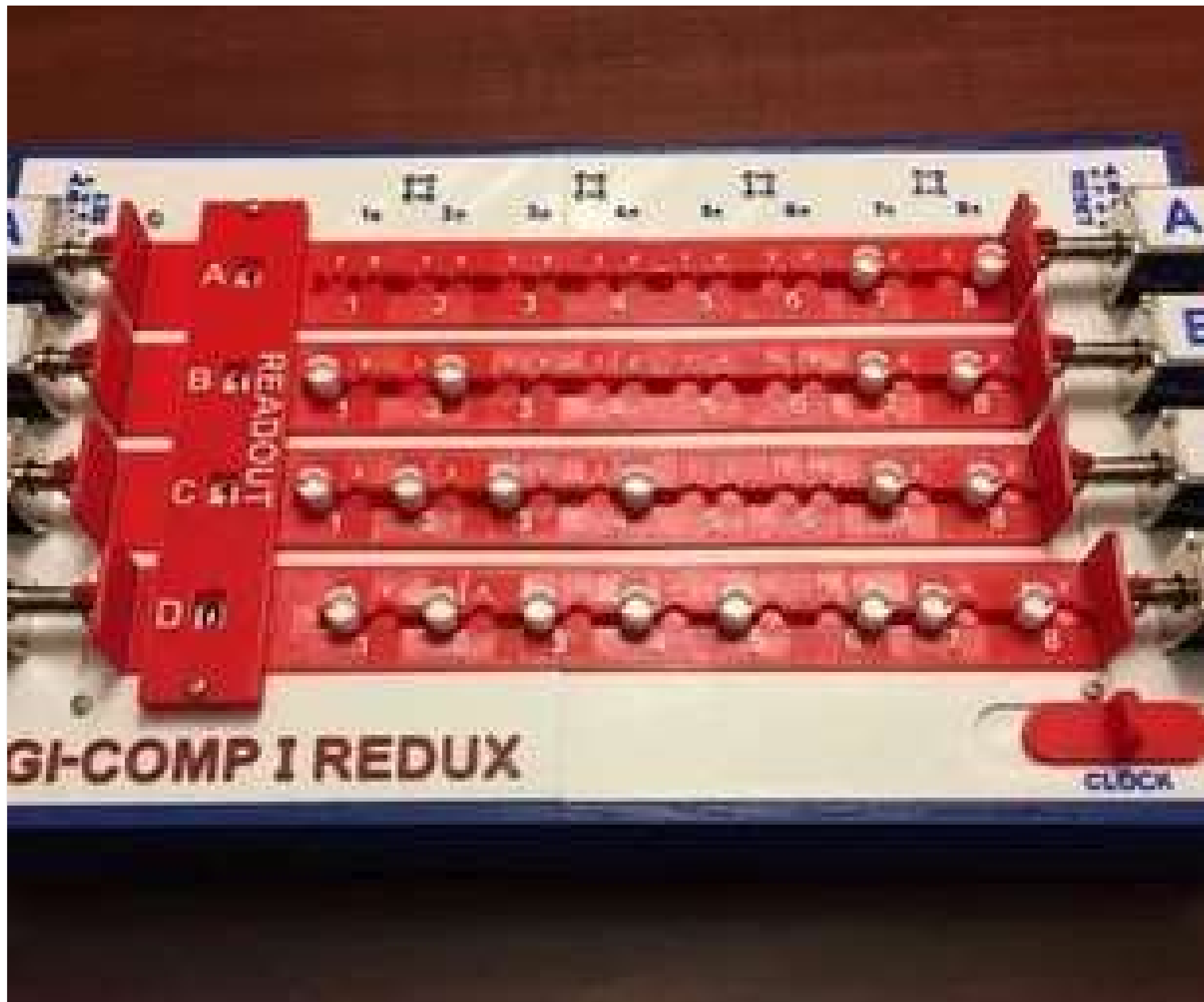


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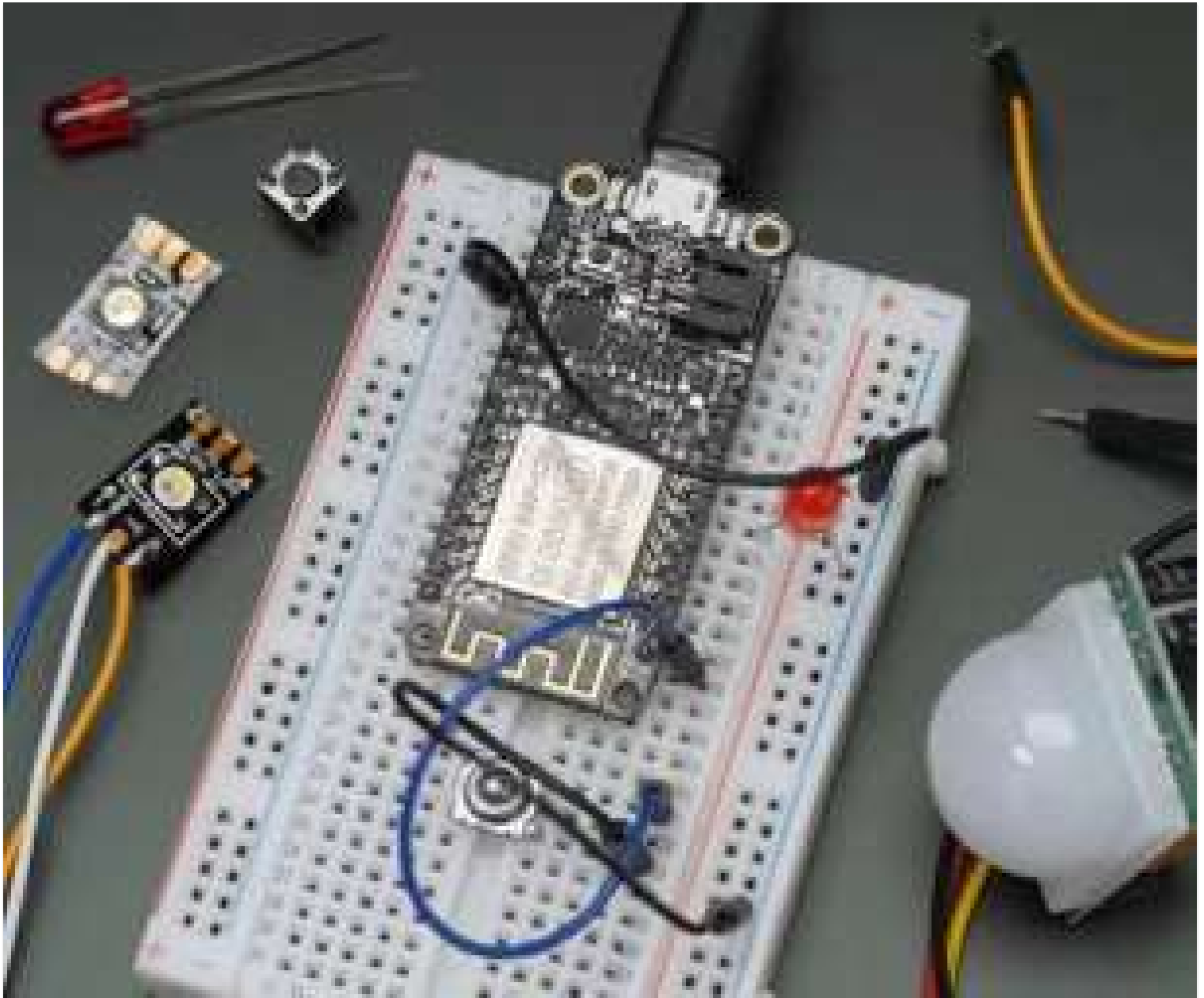
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Please be positive and constructive.

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(/member/simaopintocorreia/) simaopintocorreia (/member/simaopintocorreia/) 3 months ago

Reply

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i HAVE DOWNLOADED THE LIBRARY TODAY AND I AM EXPLORING THIS BECAUSE THE
EXEMPLES ARE VERY LONG AND THIS ARE SIMPLE .
THANCKS.



(/member/devicemodder/) devicemodder (/member/devicemodder/) 1 year ago

Reply

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Can i get a link to buy that screen?



(/member/msameer39/) msameer39 (/member/msameer39/) 2 years ago

Reply

▲ Upvote

How can I get the bitmap converted into arduino readable file?



(/member/msameer39/) msameer39 (/member/msameer39/) 2 years ago

Reply

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That is great. I am going to try it



(/member/mpetkovi%25C4%25871/) mpetković1 (/member/mpetkovi%25C4%25871/) 2 years ago

Reply

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I'm having troubles using this library. I use DHT22 sensor and BMP180 sensor. When i call read function of each sensor it returns me nonsense(DHT22 sensor says it's -999 % humidity and barometric sensor says it's 0 degrees C and 2.34 hPa pressure). Can anyone help me? I would appreciate any advice.



(/member/JordanM148/) JordanM148 (/member/JordanM148/) 2 years ago

Reply

▲ Upvote

Guys how about the input of the message? does it by manual input using keyboard? or by sending message through cellphones?



(/member/JonathanR119/) JonathanR119 (/member/JonathanR119/) 3 years ago

Reply

▲ Upvote

is this compatible with arduino mega 2560?



(/member/JonathanR119/) JonathanR119 (/member/JonathanR119/) 3 years ago

Reply

▲ Upvote

hi sir...what pin should I use if I'm using arduino mega 2560?..



(/member/AaravM/) AaravM (/member/AaravM/) 3 years ago

Reply

▲ Upvote

it isnt working it shows

Arduino: 1.6.8 (Windows 7), Board: "Arduino/Genuino Uno"

C:\Users\Mohit\Documents\Arduino\sketch_mar29d\sketch_mar29d.ino:1:19: fatal error: TVout.h: No such file or directory

#include <TVout.h>

^

compilation terminated.

exit status 1

Error compiling for board Arduino/Genuino Uno.

This report would have more information with

"Show verbose output during compilation"

option enabled in File -> Preferences.

2 replies ▼



(/member/OfficialLingga/) OfficialLingga (/member/OfficialLingga/) 3 years ago

Reply

▲ Upvote



(/member/AaravM/) AaravM (/member/AaravM/) 3 years ago

Reply

▲ Upvote

where is the code i cant find which code to use

1 reply ▼



(/member/HarryS42/) HarryS42 (/member/HarryS42/) 3 years ago

Reply

▲ Upvote

Thank you so much for sharing the good experience for me. I am just step into beginner stage. Hope many of us are happy with your support on Arduino work.



(/member/u971/) u971 (/member/u971/) 3 years ago

Reply

▲ Upvote

Thanks for this it was easy and fun to make and play with.



(/member/DmitryI/) DmitryI (/member/DmitryI/) 3 years ago

Reply

▲ Upvote

It would be nice to use it for Arduino Oscilloscope on that screen.



(/member/RocketmanR/) RocketmanR (/member/RocketmanR/) 3 years ago

Reply

▲ Upvote

I have a mac and I don't know how to download the library? Can some one please help



(/member/DataLoreBorg/) DataLoreBorg (/member/DataLoreBorg/) 4 years ago

Reply

▲ Upvote








Does the 470ohm resistor have to be exactly that? because I am having a hard time finding that and I don't really want to buy one because radio shack is really far away. If it doesn't then what's the best replacement.

1 reply ▼

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