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Arduino Project Hub

Programming ATtiny85 with Arduino Uno © GPL3+

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Step by step on how to program a ATtiny85 microcontroller with Arduino Uno development board.

[arduino \(/projecthub/projects/tags/arduino\)](#)

[attiny85 \(/projecthub/projects/tags/attiny85\)](#)

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Arduino UNO & Genuino UNO
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s=BAhJlhU5OTY3LEJhc2VBcnRp

(/projecthub/products/buy/41?
s=BAhJlhU5OTY3LEJhc2VBcnRpY2xIBjoGRUY%3D%0A)

Arduino Project Hub



Atmel ATTiny85 (/projecthub/p
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s=BAhJIhU5OTY3LEJhc2VBcnRpY2xIBjoGRUY%3D%0A)

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s=BAhJIhU5OTY3LEJhc2VBcnRp

Jumper Wires M/M (/projecthul
s=BAhJIhU5OTY3LEJhc2VBcnRp

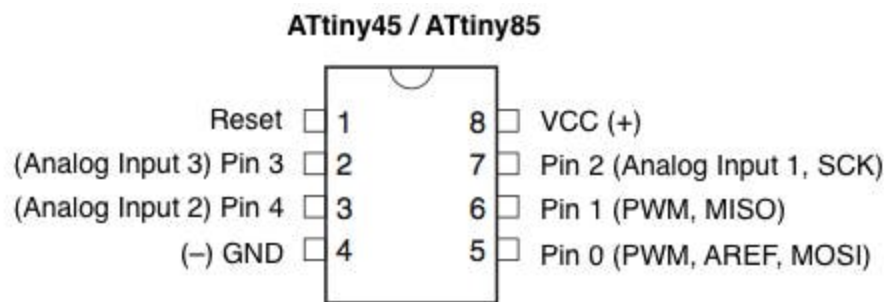
ABOUT THIS PROJECT ()

^

I am working on a project which requires reading multiple sensor data on different locations. These require only few PWM pins so using multiple Arduino Uno would be expensive and unnecessary. So I decided to use ATTiny85 microcontroller in place of Arduino Uno development boards. ATTiny85 is a cheap and powerful alternate when

u don't need too many PWM pins. Since ATtiny85 is just a microcontroller we need a Arduino Uno to program it. In this project I will explain how to do it. Below is the pin configuration of ATtiny85 and the datasheet can be found

here: http://www.atmel.com/images/atmel-2586-avr-8-bit-microcontroller-attiny25-attiny45-attiny85_datasheet.pdf (http://www.atmel.com/images/atmel-2586-avr-8-bit-microcontroller-attiny25-attiny45-attiny85_datasheet.pdf).



ATtiny85 Pin Configuration

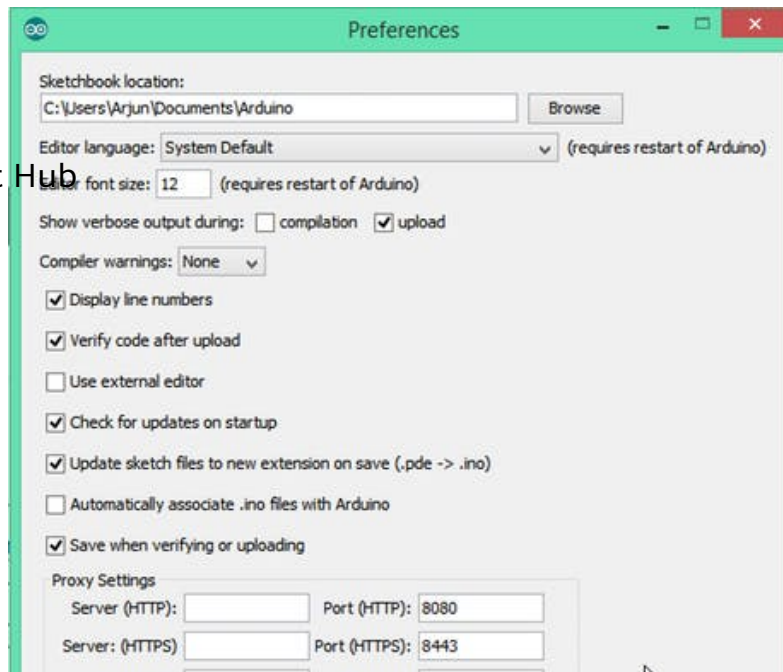
Configuring Arduino Uno as a ISP (In-System Programming)

To program the ATtiny85 we need to first set Arduino Uno in ISP mode. Connect your Arduino Uno to the PC. Open Arduino IDE and open the ArduinoISP example file (File -> Examples -> ArduinoISP) and upload it.

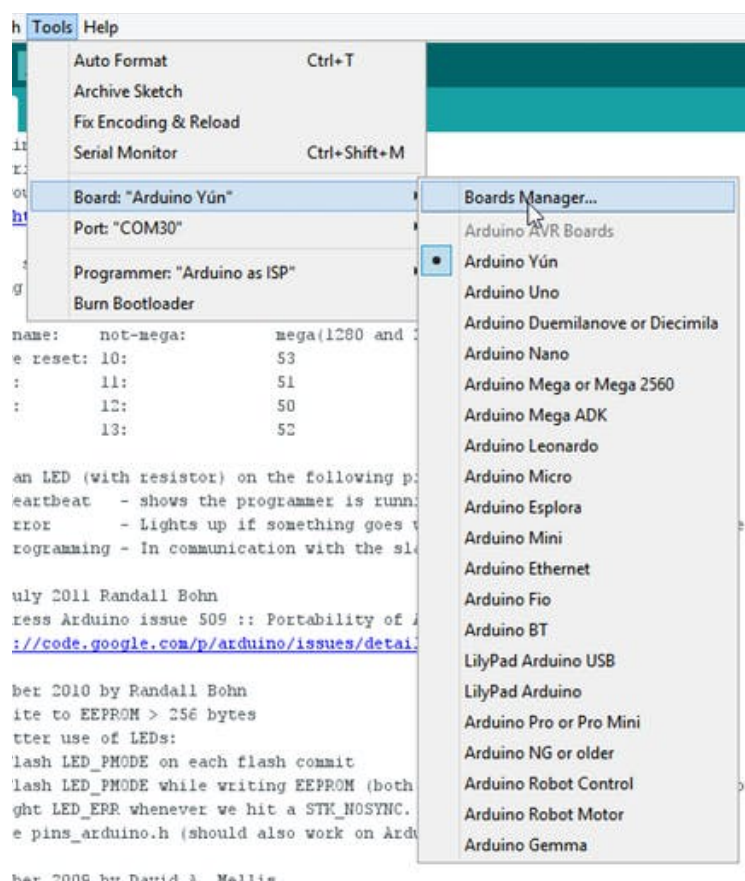
Adding ATtiny85 Support to Arduino IDE

By default Arduino IDE doesn't support ATtiny85 so we should add ATtiny boards to Arduino IDE. Open File -> Preferences and in the Additional Boards Manager URLs give this url https://raw.githubusercontent.com/damellis/attiny/ide-1.6.x-boards-manager/package_damellis_attiny_index.json (https://raw.githubusercontent.com/damellis/attiny/ide-1.6.x-boards-manager/package_damellis_attiny_index.json).

Arduino Project Hub

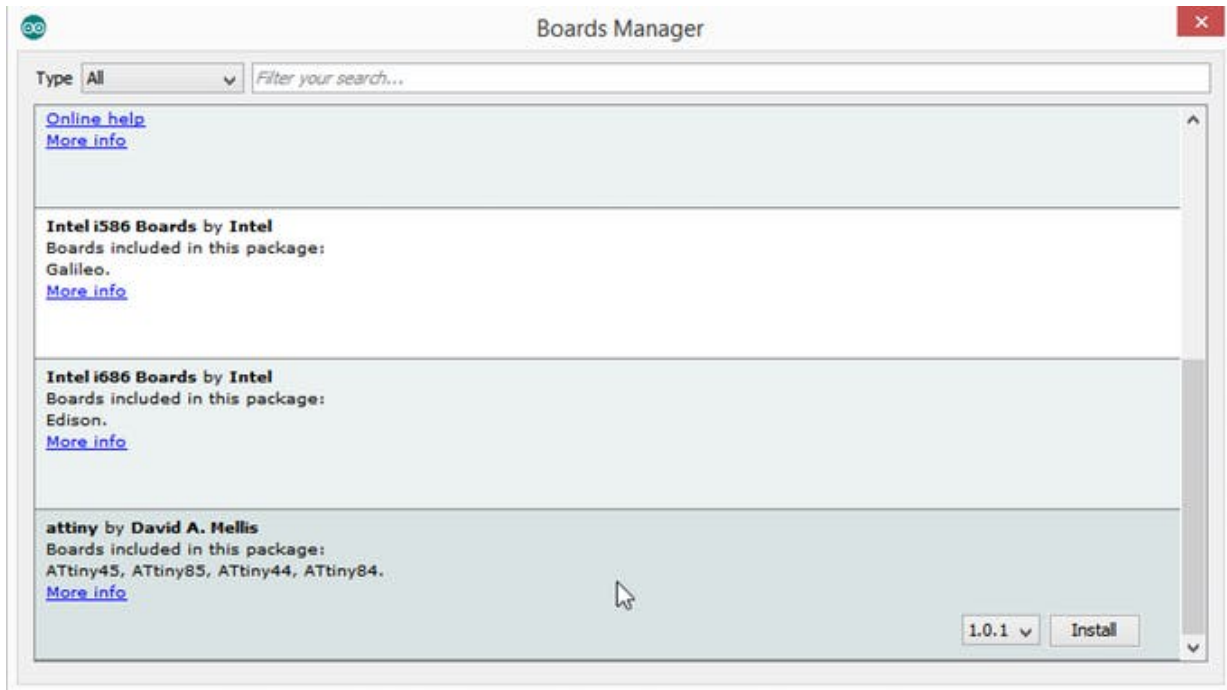


After this is done open Tools -> Board -> Board Manager



After opening Board Manager scroll down the list where it says "attiny by Davis A. Mellis". Click on that and install it.

Arduino Project Hub



After installing now you would be able to see a new entry in the Board menu

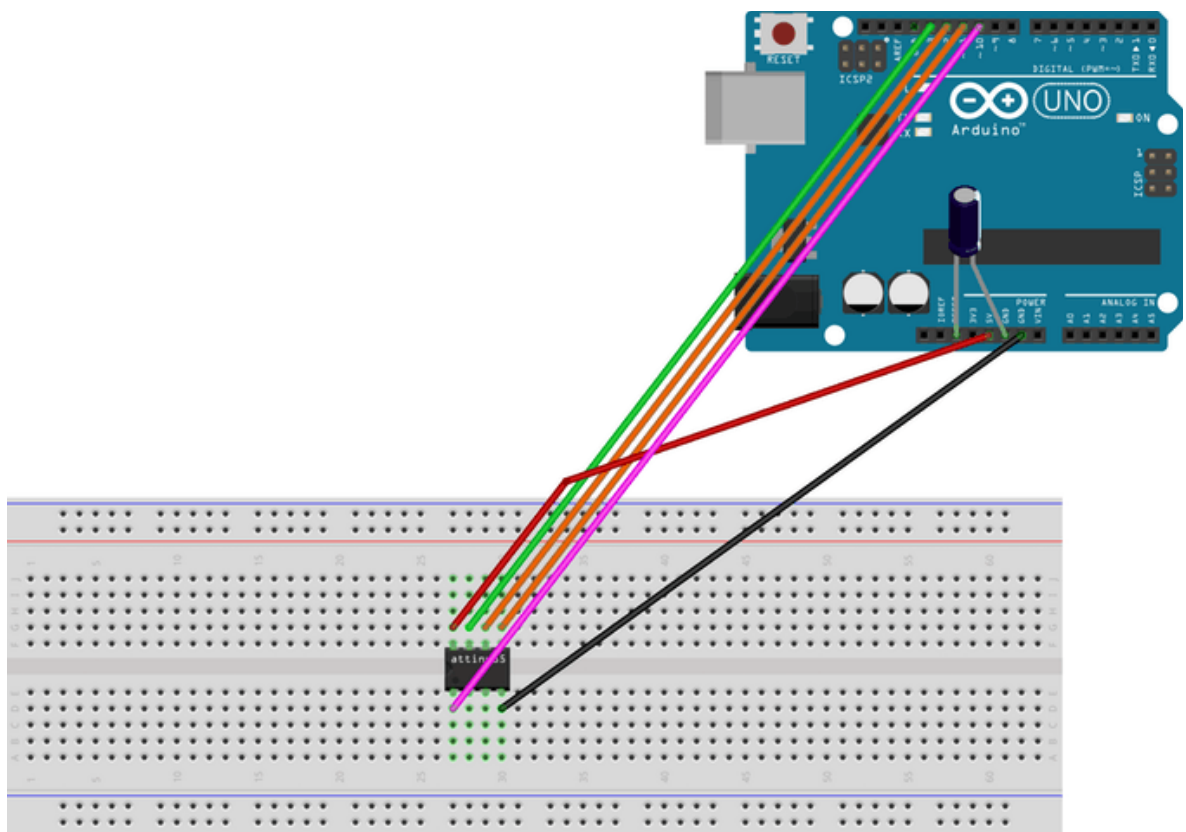
Arduino Project Hub

Connecting ATtiny85 with Arduino Uno

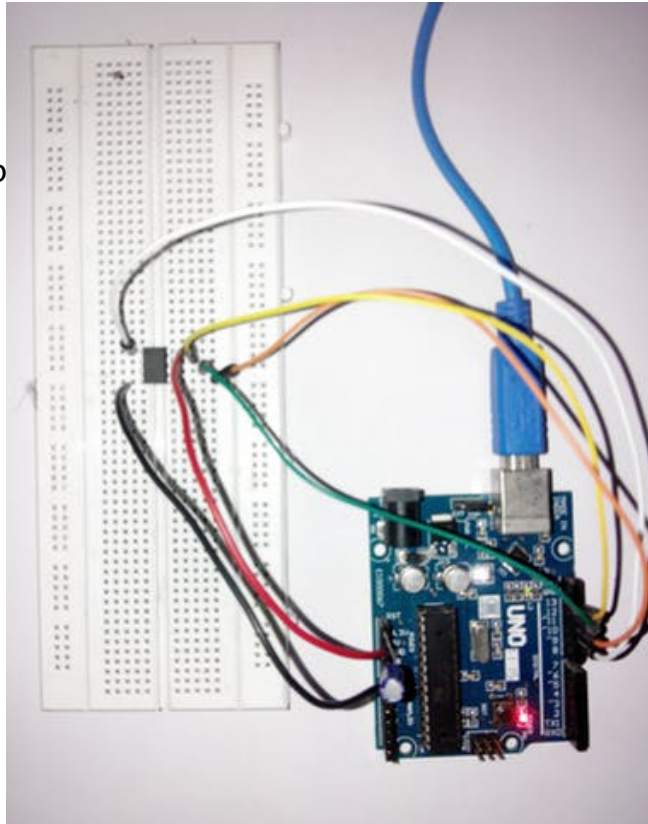
Now with all the above things ready we will start programming the attiny85. Connect the arduino uno to attiny85 using breadboard as below.

Arduino Uno – ATtiny85

- 5V – Vcc
- Gnd – Gnd
- Pin 13 – Pin 2
- Pin 12 – Pin 1
- Pin 11 – Pin 0
- Pin 10 – Reset



fritzing

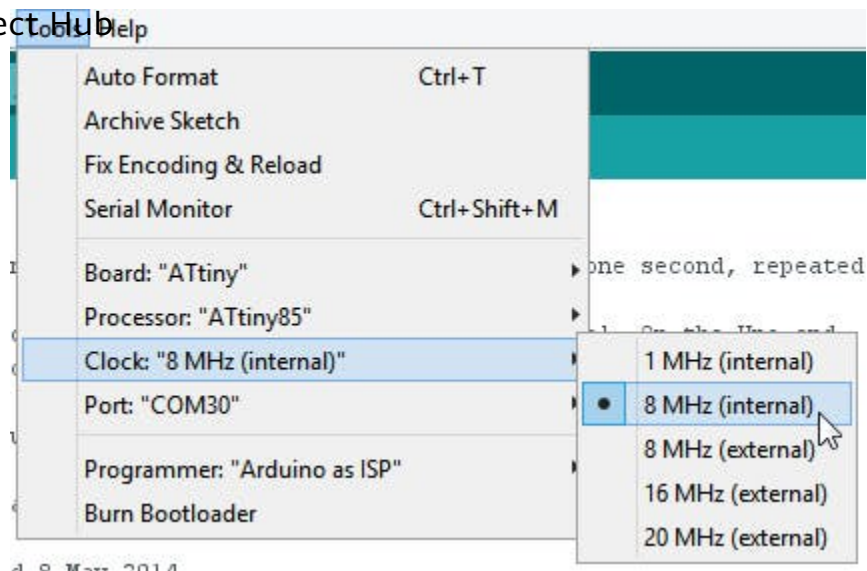


Add a 10uF capacitor between RESET and GND in arduino. This is to avoid arduino from being auto reset when we upload the program to attiny85. If you are using a electrolytic capacitor make sure the anode goes in GND of uno.

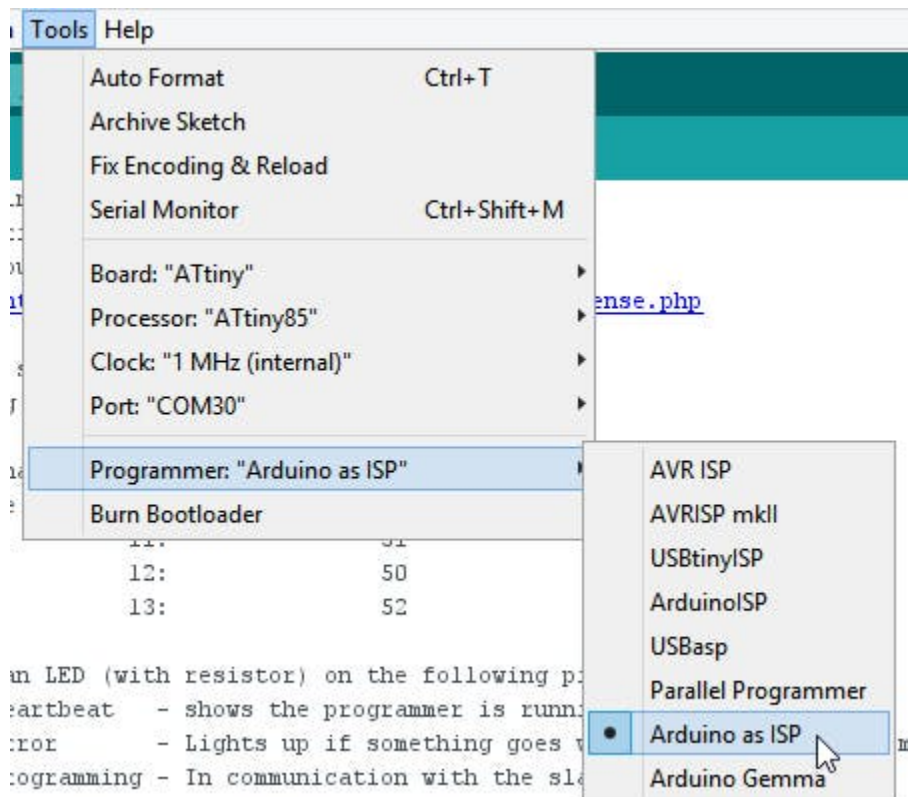
Uploading program to ATtiny85

Now back to Arduino IDE. Select ATtiny under Tools -> Board. Then select ATtiny85 under Tools -> Processor. And select 8 MHz (internal) under Tools -> Clock.

Arduino Project Hub



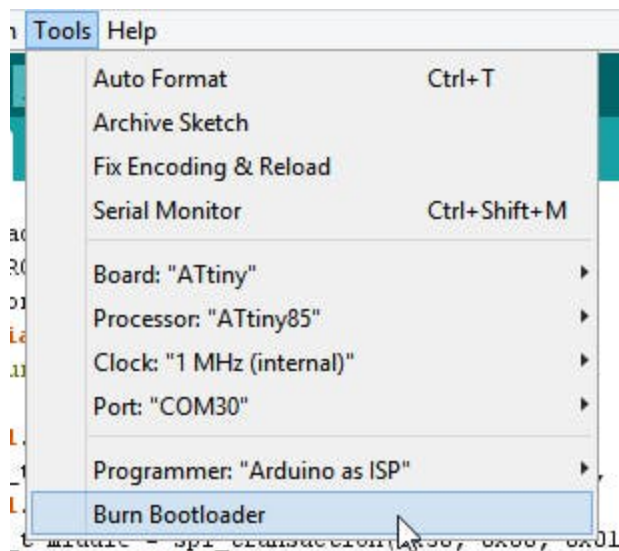
Then make sure Arduino as ISP is selected under Tools -> Programmer



By default the ATtiny85 runs at 1MHz. To make it to run at 8MHz select Tools ->

Burn Bootloader.

Arduino Project Hub



```
Done burning bootloader.
avrdude: Recv: . [10]
##### | 100% 0.05s

avrdude: Device signature = 0x1e930b
avrdude: Send: Q [51] [20]
avrdude: Recv: . [14]
avrdude: Recv: . [10]

avrdude done. Thank you.
```

You will get the above message if burning bootloader was successful.

Now open the Blink example from arduino examples and change the pin number from 13 to 0 and upload.

Arduino Project Hub

```
Blink$
1  /*
2   * Blink
3   * Turns on an LED on for one second, then off for one second, repeatedly.
4   *
5   * Many Arduinos have an on-board LED you can control. On the Uno and
6   * Leonardo, it is attached to digital pin 13. If you're unsure what
7   * pin the on-board LED is connected to on your Arduino model, check
8   * the documentation at http://arduino.cc
9   *
10  * This example code is in the public domain.
11  *
12  * modified 8 May 2014
13  * by Scott Fitzgerald
14  */
15
16
17 // the setup function runs once when you press reset or power the board
18 void setup() {
19   // initialize digital pin 13 as an output.
20   pinMode(13, OUTPUT);
21 }
22
23 // the loop function runs over and over again forever
24 void loop() {
25   digitalWrite(13, HIGH);   // turn the LED on (HIGH is the voltage level)
26   delay(1000);              // wait for a second
27   digitalWrite(13, LOW);    // turn the LED off by making the voltage LOW
28   delay(1000);              // wait for a second
29 }
```

Done uploading.

```
avrdude: 790 bytes of flash written
avrdude: verifying flash memory against C:\Users\Arjun\AppData\Local\Temp\build7060851410767997699.tmp/Blink.cpp.hex:
avrdude: load data flash data from input file C:\Users\Arjun\AppData\Local\Temp\build7060851410767997699.tmp/Blink.cpp.hex:
avrdude: input file C:\Users\Arjun\AppData\Local\Temp\build7060851410767997699.tmp/Blink.cpp.hex contains 790 bytes
avrdude: reading on-chip flash data:

Reading | ##### | 100% 0.77s

avrdude: verifying ...
avrdude: 790 bytes of flash verified

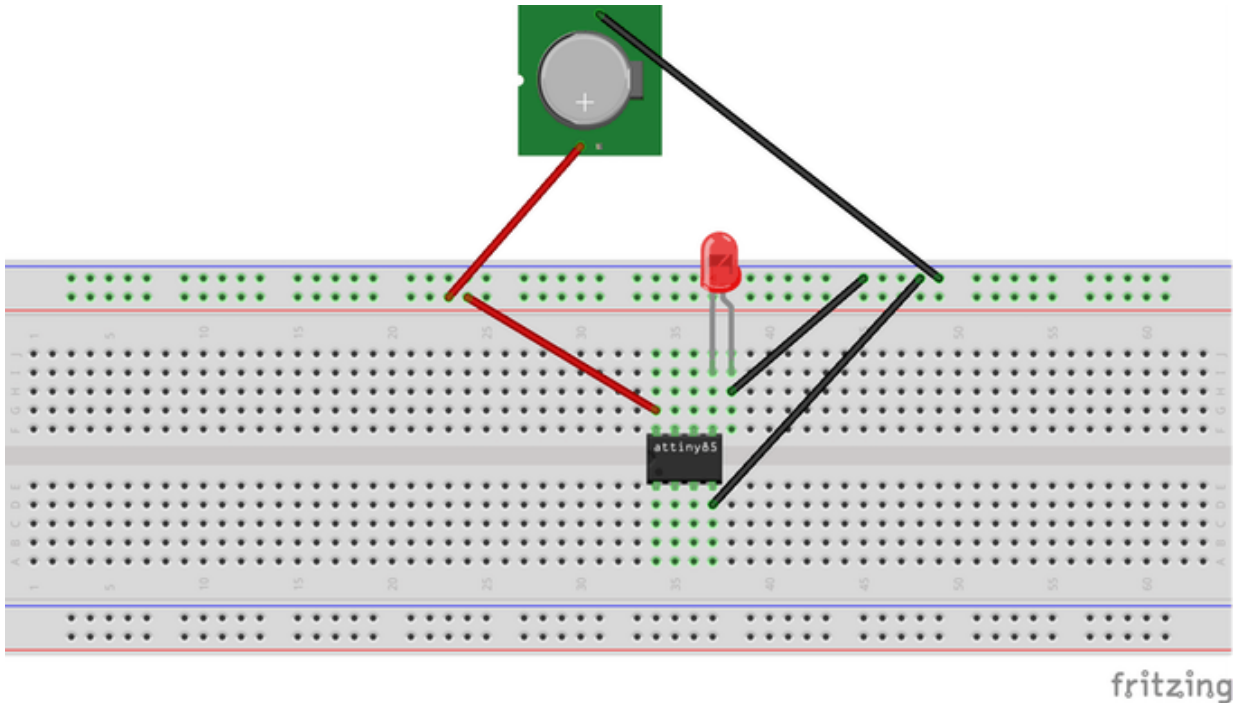
avrdude done. Thank you.
```

29

You can see the above message if everything was successful. Now we have upload the blink program to ATtiny85 and now lets test it out.

Testing ATtiny85 Blink

Now its time to test. Remove all connections from Arduino and take a power source! Here I will use a button cell to power ATtiny85.



Testing ATtiny Blink

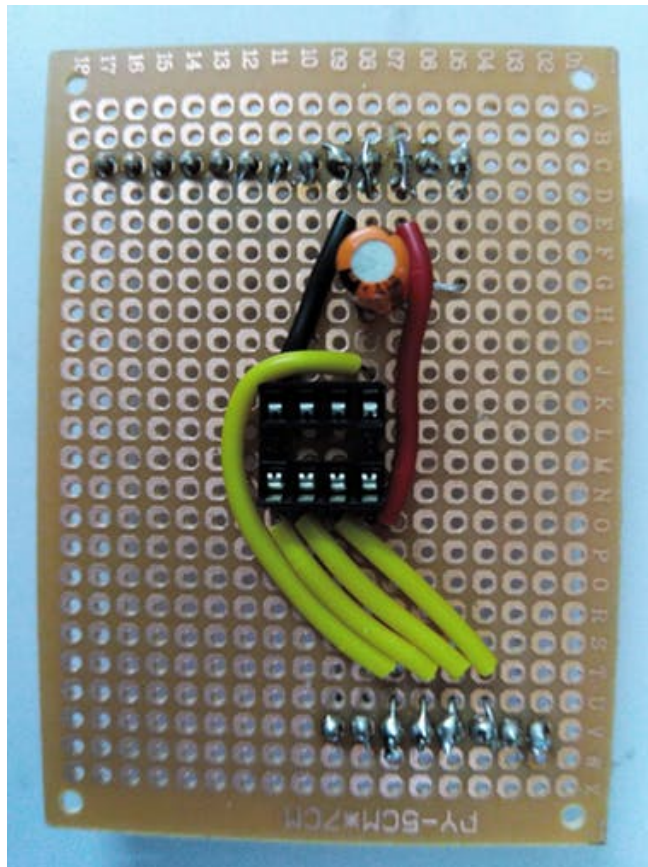


There it is the blink program running on a ATtiny85 with just a battery cell to power it. You can do many projects with low cost, low power and low space. Only your imagination is the limit here and the number of PWM pins of course.

Arduino Project Hub

Making it into a Shield

I converted the above circuit to a shield compatible with Arduino Uno.



◀ PREVIOUS

• • • • •

NEXT ▶

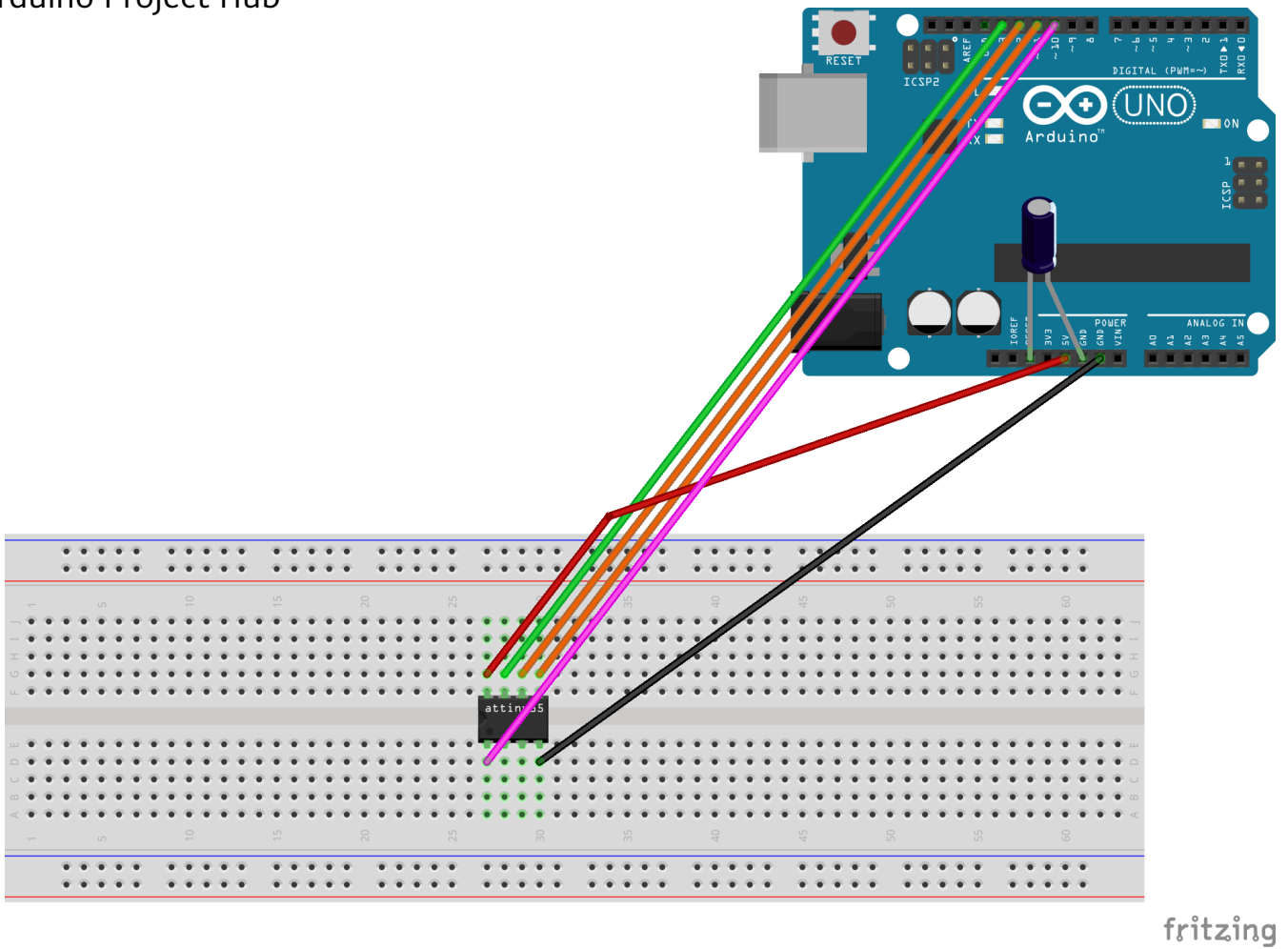
(Note: Being a software developer this is my first ever project on electronics. Please give in your suggestions to help me do more.)

SCHEMATICS

**Programming
ATtiny85**

DOWNLOAD ([HTTPS://HALCKEMY.S3.AMAZONAWS.COM/UPLOADS/IMAGE_FILE/FII](https://halckemy.s3.amazonaws.com/uploads/image_file/fii))

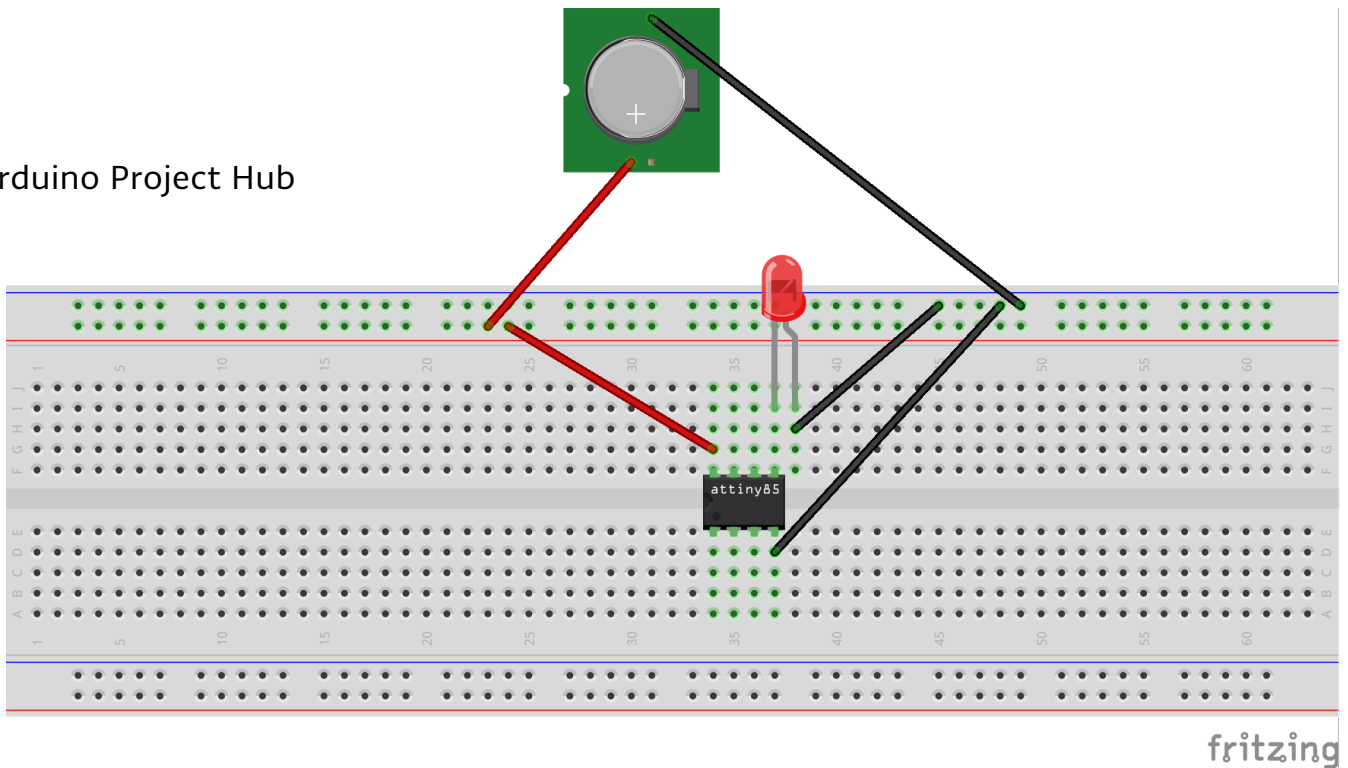
with Arduino
Uno -
Breadboard
Arduino Project Hub



Testing
ATtiny85
Blink

DOWNLOAD ([HTTPS://HALCKEMY.S3.AMAZONAWS.COM/UPLOADS/IMAGE_FILE/FILE/509](https://halckemy.s3.amazonaws.com/uploads/image_file/file/509))

Arduino Project Hub



CODE ()

Blink Program C/C++



(/PROJECTHUB/CODE_FILES/22033/DOWNLOAD)

```
/*
Blink
Turns on an LED on for one second, then off for one second, repeatedly.

Most Arduinos have an on-board LED you can control. On the Uno and
Leonardo, it is attached to digital pin 13. If you're unsure what
pin the on-board LED is connected to on your Arduino model, check
the documentation at http://arduino.cc

This example code is in the public domain.

modified 8 May 2014
by Scott Fitzgerald
*/

// the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin 13 as an output.
  pinMode(0, OUTPUT);
}
```

COMMENTS (0)

Please log in (/projecthub/users/sign_in?id=9967&m=base_article&reason=comment&redirect_to=%2Fprojecthub%2Farjun%2Fprogramming-attiny85-with-arduino-uno-afb829%23comments) or sign up (/projecthub/users/sign_up?id=9967&m=base_article&reason=comment&redirect_to=%2Fprojecthub%2Farjun%2Fprogramming-attiny85-with-arduino-uno-afb829%23comments&source=popup) to comment.



Patrick Grasseels (/projecthub/hantse)

2 years ago

(/pr
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hub/
but link

https://raw.githubusercontent.com/damellis/attiny/ide-1.6.x-boards-
manager/package_damellis_attiny_index.json

(https://raw.githubusercontent.com/damellis/attiny/ide-1.6.x-boards-
manager/package_damellis_attiny_index.json). is death 😞



Arjun Ganesan (/projecthub/arjun)

2 years ago

(/pr

ject
just tried. Its working Patrick. Can you try again ?

hub/

arju

n)



Patrick Grasseels (/projecthub/hantse)

2 years ago

(/pr

ject
Now it's work :p

hub/

hant

se)



Christopher Simon (/projecthub/cjsimon)

2 years ago

(/pr

Arduino

The period for the end of the sentence got included in the URL link in the article.

cjsi

mon

)



Arjun Ganesan (/projecthub/arjun)

2 years ago

(/pr

Thanks for pointing that out. Fixed it.

hub/

arju

n)



Gurinder Singh Gill (/projecthub/gsgill112)

2 years ago

(/pr

I am

currently

making

myself

a shield

to do

this

It's

Much

easier

that

way !!

There

are

also

some

really

cheep

shields

available

to do

the

job 😊

gsgil

112)



Sagar Agrawal (/projecthub/Genesis)

2 years ago

(/pr

please

tell

me

when

you

succeed

at

this.

i

would

appreciate

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help

at

it

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Arjun Ganesan (/projecthub/arjun)

2 years ago

(/pr

Just

updated

the

project

with

photos

on

that.

hub/

arju

n)



Sagar Agrawal (/projecthub/Genesis)

2 years ago

(/pr

thanks

for

the

project

it

will

be

very

helpful

hub/

Gen

esis)



sarthak sethi (/projecthub/sarthaksethi)

2 years ago

(/pr

There's an issue with the project! I tried it on my attiny85, the delay given by the Arduino Project Hub was very high. For 1 second delay, it gave me 20 second delay. Also i tried it on 8mhz more but still not luck. please help

sarth

haks

ethi)



Arjun Ganesan (/projecthub/arjun)

2 years ago

(/pr

did you used the code exactly as it is here or did u changed it ? if so share your code here.

arju

n)



Daniel Wright (/projecthub/daniel6610)

a year ago

(/pr

I think the reason for the difference in delay is the attiny85 is running at 8Mhz and the delay is structured for a 16Mhz arduino. When I had the delay at about 400, it was giving me about a 1 second delay. Hope this helps.

dani

el66

10)



Josh Blackburn (/projecthub/Jblackburn)

a year ago

(/pr

From what I've done previously with ATTinys, I've found that setting them to 8Mhz gives weird timing, but using 1Mhz gives notmal timing, even after burning the bootloader.

Jblac

kburn

n)



sarthak sethi (/projecthub/sarthaksethi)

2 years ago

(/pr

Also one more thing, the attiny doesnot work with a coin cell. the issue is that the coin cell doesnot provide enough power to the attiny and so the LED lights up very dim. Any idea how to solve this as well? + if i put a 9v battery, it heats up

sarth

haks
ethi)

Arduino Project Hub



Arjun Ganesan (/projecthub/arjun)

2 years ago

(/pr
ject
hub/
arju
n)
try
power supply.

Attiny85 can operate only with voltage range 2.7 V ~ 5.5 V. So a 3V is well sufficient for attiny85 to run. May be the LED you used is rated for higher voltage. If you use 9V battery it will definitely damage the processor. Either try to use some 5V power source or use a voltage regulator with the 9V power supply.

1 thank



Chris S. (/projecthub/blownupp)

a year ago

(/pr
ject
hub/
blow
nup
p)

Great first hardware project! Thank you, I appreciate it. I recently got a few ATtiny's and this is the easiest to follow tutorial for using an UNO as ISP. I wonder if I can make a standalone ISP using one of my extra 328ps...



Chris S. (/projecthub/blownupp)

a year ago

(/pr
ject
hub/
blow
nup
p)

I just want to add too that this saved me from losing two of those Digispark boards.

Now I upgraded to Windows 10 apparently there's some issues with some of the Digispark clones (I was using the CJMCU variety - \$2 each!). The only thing to make sure you do is use that ATtiny boards manager file - otherwise Micronucleus will try and program it instead of the UNO as ISP.



Josh Blackburn (/projecthub/Jblackburn)

a year ago

(/pr
ject

hub/

Jblac

Hi, I'm having a small issue with programming the ATtiny85. I've tried everything I can think of, breadboarding, a programming shield, two different Arduino IDEs (1.6.8 and 1.7.9), but every time I try I get this error;
avrdude: Yikes! Invalid device signature.
Double check connections and try again, or use -F to override this check.
Any ideas of what might be happening?



Footy (/projecthub/Footy)

a year ago

Hi Arjun, I tried everything as instructed, and everything worked except that no messages appeared when I selected 'Burn bootloader'. In the IDE window it said 'bootloader done', but no message appeared like your instructions indicated. Same with uploading the 'blink' example.



nerd-man102 (/projecthub/nerd-man102)

9 months ago

Hi Arjun, this is an awesome project, however i always have problems with avrdude. whenever i try to burn bootloader it says "programmer not in sync." has anyone ever run into this problem? help wold be very much appreciated. thank you!

man

102)



neewaz (/projecthub/neewaz)

9 months ago

Hi Arjun, I tried to burn the bootloader to ATtiny13A using the same method, but I get error while burning. Does it work for ATtiny13A or do i need to do it the other way?



markwills (/projecthub/markwills)

9 months ago

(/pr
Dear Arjun,
Object
Arduino Project Hub

This is very useful information for new-comers to the Arduino platform.

mar
Many thanks.
kwil

s)



Harsha sharan (/projecthub/user877774)

8 months ago

(/pr
can arduino micro be used instead of uno?
Object
hub/
user

8777



Mohsin Farid (/projecthub/mohsin-farid)

8 months ago

(/pr
Can attiny13a work with this. do you have for other AVR's too?
Object

hub/
moh

sin-
farid



shrey1992 (/projecthub/shrey1992)

8 months ago

(/pr
I tried this method, it worked, but only once.
Object
Then it started giving this error:

avrdude: Expected signature for ATtiny85 is 1E 93 0B

Double check chip, or use -F to override this check.

Wrong microcontroller found. Did you select the right board from the Tools > Board menu?

I have checked the board menu etc, but it still doesn't work.



Billy Tchekhov (/projecthub/user77061)

6 months ago

(/pr
Hi, I'm sorry but the Bootloader sends a message as follows:
Object

"System wide configuration file is

"/Users/gtchekhov/Library/Arduino15/packages/arduino/tools/avrdude/6.0.1-ardui
user

7706

1)
no2/etc/avrdude.conf"

Arduino Project Hub
User configuration file is "/Users/gtchekhov/.avrduderc"User configuration file does not exist or is not a regular file, skipping"

I went through all the steps described and could not get the thing to recognize the Attiny.

Using MAC 10.8.5; a UNO as an ISP. The Attiny 85 is on the Boards List ok.

Does this conf file work only for Windows ? or what is the trouble's origin ?

Thanks



Billy Tchekhov (/projecthub/user77061)

6 months ago

(/pr
Works fine !

Object
hub/
user
7706
up)
HOWEVER please NOTE that you should FIRST run ArduinoISP on the UNO board with its UNO settings. THEN, only after doing this, then you change the settings to those for ATTiny and you run the Bootloader sketch. When this is done, you can upload your sketches.

The whole stuff is in two steps.

It took me some time to find this, getting all sorts of stranger messages because I was trying to run the arduinoISP sketch on the Attiny settings.



Mahesh Viswanathan (/projecthub/iotmahesh)

6 months ago

(/pr
didn't need to use a capacitor at all. Used an original Arduino Uno.

Object
hub/
iotm

ahes



DupontBill (/projecthub/DupontBill)

6 months ago

(/pr
Hello,

Object
hub/
Dup
ontB
lin)
I'm new to Arduino so please bear with me. I've been looking at tutorials for using the Uno to program the ATTiny85 and yours seems the clearest - thanks. However I'm running into the same problem regardless of whose tutorial I follow. First, when I attempt to burn the Bootloader, I get the message "Error while burning

bootloader."

The other problem is that when I attempt to compile the ArduinoISP sketch, I get the message "Serial" was not declared in this scope. Any guidance? Thanks

Arduino Project Hub



Thergj (/projecthub/Thergj)

5 months ago

(/pr
First, thanks to Arjun for this great starter project! I had some problems getting it to work, but it was mostly due to rookie mistakes. Here are my limited insights. The Attiny85 should be connected properly before you start programming your arduino. The only time I got any error messages was when the Attiny85 was not connected, or was incorrectly connected. Additionally, the only confirmations of successful uploads were one or two lines long, not the many lines of 'avrdude' stuff. For the sketch, copy and paste the one from the project page above. I edited the one from the example library but made a mistake which I had to find and correct later.

Finally, make sure that when you set up your final test circuit, the anode of your LED is in the right position. If it is connected backwards, it won't blink no matter how good everything else is.

Hope this helps!



Zonker Harris (/projecthub/Zonker)

5 months ago

(/pr
This is a great write-up, and the screen-shots are helpful. However, I'll add here that the VITAL STEP (which you added, but many other projects omit) is the step about clicking on "Burn Bootloader" anytime you change the options of the ATtiny! Since we don't usually need to do that for other sketches/platforms, it's not intuitive for many beginners, and even to many with Arduino experience. Maybe you could edit that, and make it a bolder font, or a specific step, to call more attention to this?

Regarding the ATtiny core file... I've found and used this one from Spence Konde successfully with the Arduino IDE v1.6.11, and the most recent Adafruit NeoPixel code. 😊

<https://github.com/SpenceKonde/ATTinyCore>

(<https://github.com/SpenceKonde/ATTinyCore>) (read the Installation files for more clues. 😊)



yanhey (/projecthub/yanhey)

4 months ago

Arduino Project Hub

What a helpful document! Many thanks!

On the improvement side, I would add that AFTER you burned the bootloader, you will want to upload a sketch... this is done by opening a sketch, compiling it, then to hold down the shift key while pressing the Upload button, next to it, you will see "Upload Using the Programmer"... I spent almost a night before discovering this feature with 1.6.12.

1 thank



el_pablo (/projecthub/el_pablo)

3 months ago

(/pr

For those who owns a Digispark with the USB and having problems with Windows 10 drivers, this method works very well. You just need to adapt the pinout mapping which I give here.

The connections goes as follow :

Arduino --> Digispark

Pin 13 --> P2

Pin 12 --> P1

Pin 11 --> P0

Pin 10 --> P5

5V --> Vin

GND --> GND



meeta (/projecthub/meeta)

3 months ago

(/pr

Object

Hub I have tried to burn program using Arduino as ISP following these steps. but there is an error of "digital signature not verified" i have tried with external clock also but the problem is same.

**MustacheMtn (/projecthub/MustacheMtn)**

2 months ago

(/pr
 Worked perfectly. Thank you!
 Object Arduino Project Hub
 hub/

Mus
 tach

**ocsav (/projecthub/ocsav)**

2 months ago

(/pr
 I'd like to report a big success, thank you very much.
 Object

hub/
 The only real problem I had was that the Uno was being hold on reset (that's my
 every, I have no way to prove it) when I 1st connected it to load the ISP sketch. I
 had to remove the wire from the RST pin in order to program it. It might be a good
 idea to load the sketch into the Uno BEFORE connecting the wires to the
 breadboard.

When I loaded the ISP sketch I took a peek and noticed that you can have 3 status
 leds, one heartbeat, one error and one programming, I had the leds, I had the
 resistors, so I couldn't resist, blinking lights are always good. 😊 So I connected the
 leds to pins 9, 8 and 7.

Then I had a few more problems (all my fault), don't change what you don't know, I
 changed the baud rate from 19200 to 9600 because I thought that it made more
 sense and that my Uno had always worked at 9600. I was wrong, it must work at
 19200. When fixing this I learned that the only way to clear the error status (pin 8
 led ON) is pressing the Uno reset button or power off/on.

I'm really happy with this, it's the 1st time I use a bare IC to do something. 😊

Can't thank you enough, you're the best !!!

1 thank

**Zonker Harris (/projecthub/Zonker)**

2 months ago

(/pr
 Blinky lights ARE good! <http://www.instructables.com/id/IKEA-Star-With-Attiny-and-NeoPixels/> (<http://www.instructables.com/id/IKEA-Star-With-Attiny-and-NeoPixels/>)
 Object
 Zonker
 er)

**Zonker Harris (/projecthub/Zonker)**

2 months ago

(/pr
ject
Hub)
Zonker
er)
I've been using the SparkFun tinyUSB programmer, and I sometimes still have a problem when I have my project connected and try to upload a sketch to the tiny... have a pull-up on pin 7 as an input, and when I leave that switch connected, the upload is inhibited, and the programmer throws an error... After I pull that wire out of the socket, I can upload fine again, and then I need to plug the wire back in so I can work with the sketch. Tiny problem, no big deal. 😊

**Brandon Dixon (/projecthub/LysolPionex)**

2 months ago

(/pr
ject
Hub)
Lysol
Pion
ex)
Has anyone tried this with an off-brand Uno? I'm using a Kuman Uno, and it's unable to burn the bootloader (I've triple checked the wiring and config and tried resetting/power cycling) saying programmer is not responding and gives the error from avrdude: stk500_getsync() not in sync. I assume by "programmer" it means the Uno, correct?

The only thing I can think is wrong is maybe I have the wrong kind of capacitor. It's 10uF and 25V, but it's non-polarized and says nothing about coupling or decoupling. Could that be it?

**ocsav (/projecthub/ocsav)**

2 months ago

(/pr
ject
Hub)
ocsav)
Yup, my "Uno" is from ICStation, and it is so different that the only driver I found for that serial port is for Windows Vista, working by some miracle on Windows 10. I'm not familiar with the Kuman Uno but if you can use it for other projects it should be ok.

I think that most of the times this kind of problem happens when you try to upload the ISP sketch with the attiny settings on.

The sequence should be:

a) Configure the IDE to work with a UNO, connect the UNO to the PC, if you have already setup your breadboard make sure to remove the wire from the UNO's reset pin.

b) Open the ISP sketch, make sure that in the code (around line 145) you have `#define BAUDRATE 19200` and that it is not commented out, I changed that to 9600 and had getsync() problems, so, it MUST be 19200. You may also try

to uncomment the line with `#define USE_OLD_STYLE_WIRING`, according to comments in the code it should not be important to a UNO but I did it anyway and it worked.

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c) Upload the ISP sketch to the UNO, insert the wire in the RST pin and press the UNO reset button. If you are using the status leds the led on pin 9 should be pulsing now, that means that the ISP is ready and waiting.

d) Load your attiny sketch, configure the IDE (for me: board=Attiny25/45/85, cpu=Attiny85. clock=internal 8MHz) to the attiny and select the Arduino as ISP as programmer. Now it is time to burn the bootloader, I didn't do any kind of testing here, just pressed this once for each of the 2 attiny85 I have and that is all. You only need to do that once for each chip. My guess is that at this time it is quite important that you select the right CPU and clock option, I used 8 MHz internal clock and it worked ok, I read that it's a BAD idea to select an external clock without having the correct crystal to connect, you'll brick your attiny and can't recover it unless you wire in the external clock.

e) Upload the sketch to the attiny. Again the status leds are quite useful, if the led on pin 8 lights up than you have had a programming error, otherwise the led on pin 7 should blink while programming the attiny.

And that should be it, I don't think that the fact that you are using an unpolarized capacitor is the problem.

Oh, another dummy thing I did once. I installed the attiny chip on reverse, it got quite warm and of course it did not work, so make sure that it is installed correctly.



faraz87 (/projecthub/faraz87)

2 months ago

(/pr

ject
Hub/.

faraz
87)

Just tried following the steps but got some error while burning bootloader. The copied error message says:

Arduino: 1.8.1 (Windows 10), Board: "ATtiny25/45/85, ATtiny85, Internal 8 MHz"

```
C:\Program Files (x86)\Arduino\hardware\tools\avr\bin\avrdude -CC:\Program
Files (x86)\Arduino\hardware\tools\avr\etc\avrdude.conf -v -v -v -v -pattiny85
-cstk500v1 -PCOM1 -b19200 -e -Uefuse:w:0xff:m -Uhfuse:w:0xdf:m
```

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```
avrdude: Version 6.3, compiled on Dec 16 2016 at 13:33:19
Copyright (c) 2000-2005 Brian Dean, http://www.bdmicro.com/
(http://www.bdmicro.com/)
Copyright (c) 2007-2014 Joerg Wunsch
```

```
System wide configuration file is "C:\Program Files (x86)\Arduino\hardwar
e\tools\avr\etc\avrdude.conf"
```

```
Using Port                : COM1
Using Programmer           : stk500v1
Overriding Baud Rate      : 19200
```

```
avrdude: ser_open(): can't open device "\.\COM1": The system cannot find the file
specified.
```

```
avrdude done. Thank you.
```

Error while burning bootloader.

Need help!!!



ocsav (/projecthub/ocsav)

a month ago

(/pr
ject
Hub/
ocsav)
I find that COM1 somewhat suspicious, when you sent the ISP sketch to the UNO you were using COM1???? In my laptop without any physical COM ports the port that I get when I connect the UNO is COM3. With the UNO connected check in the IDE what COM is being used, you can too take a look in device manager, under Ports (COM & LPT).

Probably it's a good idea not to remove the uno from the PC after loading the ISP sketch.

Just do as described above.

Load the ISP sketch to the uno, connect the wires, change the board, chip and programmer in the IDE and that should be it, the COM port should stay the same that was used to program the uno



Peter Albronda (/projecthub/albronda)

a month ago

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I think the text about the capacitor is not correct, it should be:
"make sure the cathode/minus goes in GND of uno. "

albr
onda
)



SureshSuthar (/projecthub/SureshSuthar)

23 days ago

(/pr

bject

hub)

have

done

everything

as

mentioned

but

it

is

showing

"Error

while

burning

boot

loader

and

programmer

is

not

responding".

I

tried

same

procedure

using

two

different

arduino

uno

boards

but

it

gives

same

error. please help

thar)

AUTHOR



(/projecthub/arjun)

Arjun Ganesan (/projecthub/arjun)

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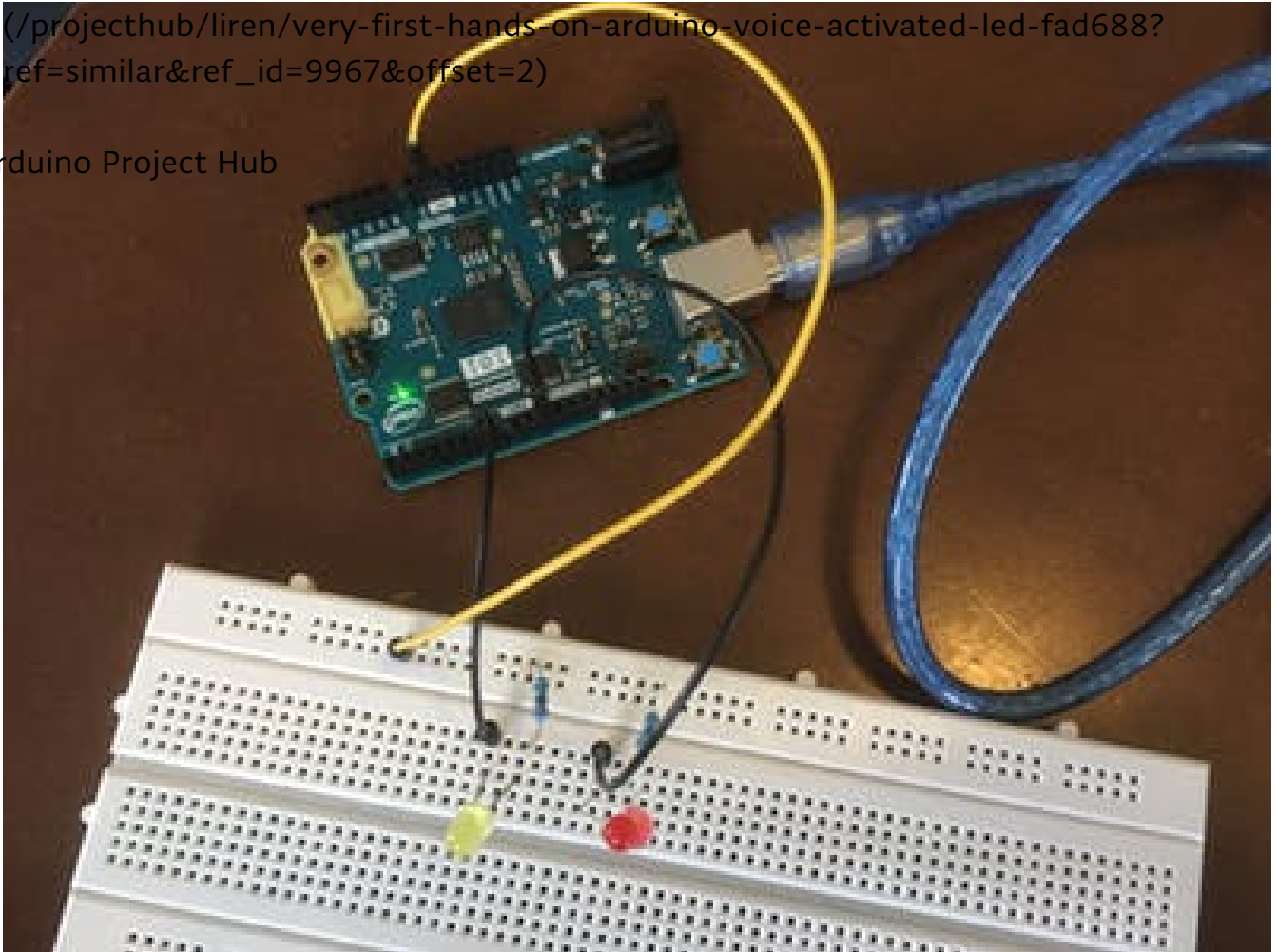
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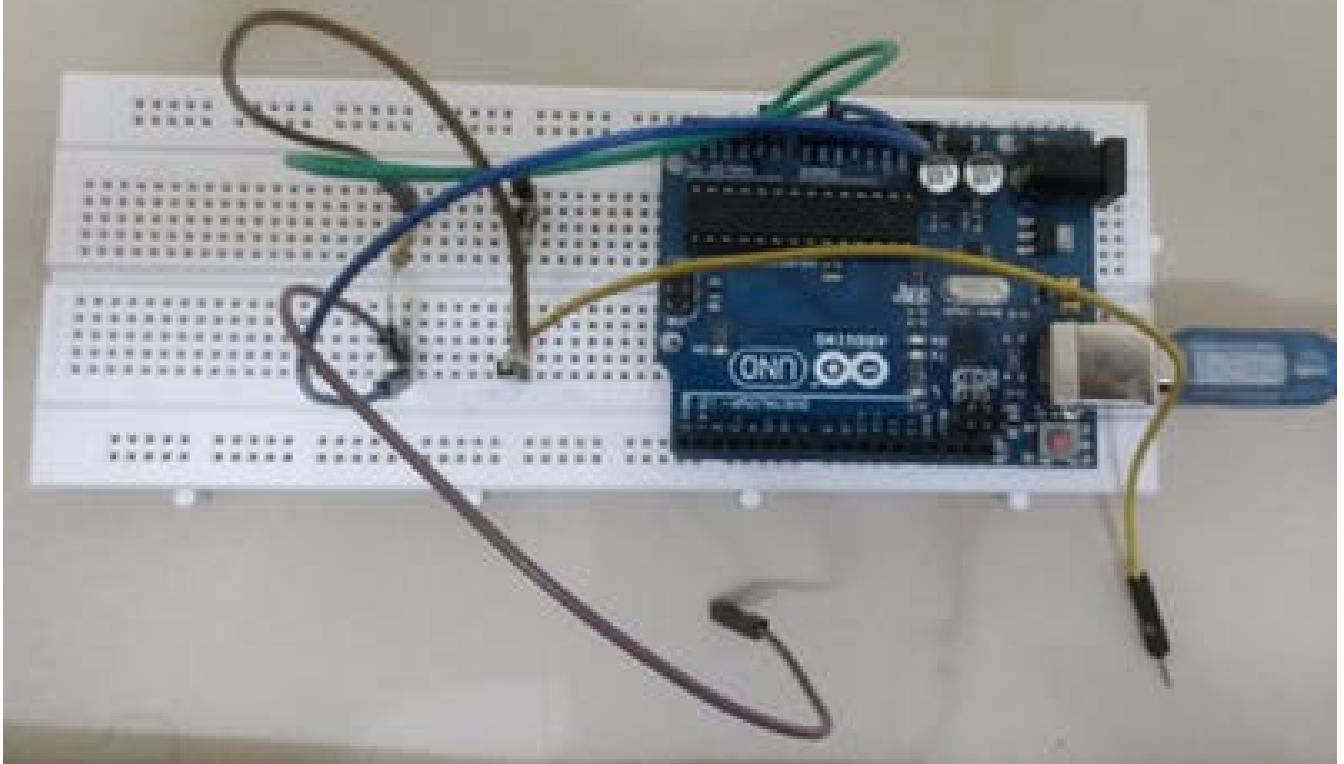
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by **Team Next Tech Lab**

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