

## 1 Blink Program

Yes; program works on Arduino Uno as intended.

## 2 Name Program

See attached files.

## 3 Modified Blink

See attached files.

## 4 Transform Step

```
1 void setup() {}  
2 void loop() { my_function();}  
3 void my_function()  
4 {  
5     void setup(){  
6         Serial.begin(9600);  
7     }  
8  
9     void loop(){  
10        Serial.println("AM I BEING ANNOYING?");  
11        delay(1000);  
12    }  
13 }
```

After running `ino build`, the following `.cpp` file was output after a transformation in the build process:

```
1 #include <Arduino.h>  
2 void setup();  
3 void loop();  
4 #line 1 "src/sketch.ino"  
5 void setup(){  
6     Serial.begin(9600);  
7 }  
8
```

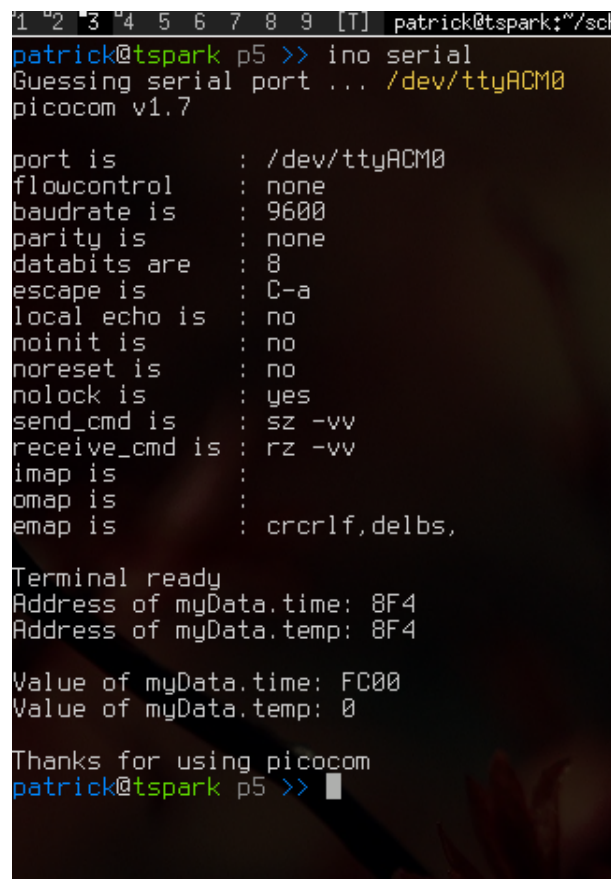
```
9 void loop(){
10     Serial.println(`AM I BEING ANNOYING?');
11     delay(1000);
12 }
```

## 5 Serial.begin(9600)

9600 represents the **Baud rate** (in units of symbols per second). The number 9600 is one of historical relevance and is used today for compatability reasons. The function itself is used to establish serial communications with a computer, the argument being the rate.

## 6 Secondary Serial Monitor

Since I have been using `ino` for most of my work on the Arduino, I have been using `picocom` to talk to the Arduino. In Figure 1, a screenshot of `picocom` in action is shown.



```
1 2 3 4 5 6 7 8 9 [T] patrick@tspark:~/sch
patrick@tspark p5 >> ino serial
Guessing serial port ... /dev/ttyACM0
picocom v1.7

port is          : /dev/ttyACM0
flowcontrol      : none
baudrate is      : 9600
parity is        : none
databits are     : 8
escape is        : C-a
local echo is    : no
noinit is        : no
noreset is       : no
nolock is        : yes
send_cmd is      : sz -vv
receive_cmd is   : rz -vv
imap is          :
omap is          :
emap is          : crclrf,delbs,

Terminal ready
Address of myData.time: 8F4
Address of myData.temp: 8F4

Value of myData.time: FC00
Value of myData.temp: 0

Thanks for using picocom
patrick@tspark p5 >> █
```

Figure 1: A screenshot of `picocom` in use