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> Programming Questions (<https://forum.arduino.cc/index.php?board=4.0>)

> Arduino pro mini Power Down mode issue (<https://forum.arduino.cc/index.php?topic=521819.0>)

[Go Down](#) Pages: [1]

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Topic: Arduino pro mini Power Down mode issue (Read 135 times)

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**pratik24192**  
(<https://forum.arduino.cc/index.php?action=profile;u=718542>)



(<https://forum.arduino.cc/index.php?action=profile;u=718542>)



Newbie

Posts: 4

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

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=718542;fd619f8=318e8d0d9ddaf64a3df893f1d131885d>)

<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=718542;fd619f8=318e8d0d9ddaf64a3df893f1d131885d>)

**PaulS**  
(<https://forum.arduino.cc/index.php?action=profile;u=160842>)

**Arduino pro mini Power Down mode issue** (<https://forum.arduino.cc/index.php?topic=521819.msg3557910#msg3557910>)

Jan 10, 2018, 02:54 pm (<https://forum.arduino.cc/index.php?topic=521819.msg3557910#msg3557910>)

Hello,

I have an issue regarding Power Down mode - MCU in sleep mode.

I have been set my Power down mode like :

LowPower.powerDown(SLEEP\_1S,ADC\_OFF,BOD\_OFF);

Whenever Switching interrupt(INT1 - RISING) occur at that time MCU will be "RESET"

then after come back in regular line.

So,What should I do ?

Thank you.

Regards,

Pratik Panchal

**Re: Arduino pro mini Power Down mode issue** (<https://forum.arduino.cc/index.php?topic=521819.msg3557933#msg3557933>)

Jan 10, 2018, 03:09 pm (<https://forum.arduino.cc/index.php?topic=521819.msg3557933#msg3557933>)

Quote

Seattle, WA USA

*“So, What should I do ?*

Well, you said:

## Quote

*“I have an issue regarding Power Down mode - MCU in sleep mode.”*

but you didn't tell us what the issue is.

## Quote

*“I have been set my Power down mode like : `LowPower.powerDown(SLEEP_1S,ADC_OFF,BOD_OFF);`*

But, under what circumstances?

## Quote

“Whenever Switching interrupt(INT1 - RISING) occur at that time MCU will be "RESET" 🤖 instead of going into ISR.

When seeing the code, this collection of words might make sense. Without the code, this makes no sense.

## Quote

*“then after come back in regular line.”*

How can you "come back in regular line" (whatever that means) after a reset?

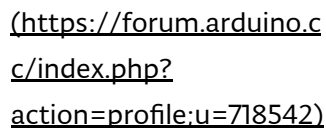
The art of getting good answers lies in asking good questions.

Re: Arduino pro mini Power Down mode issue (<https://forum.arduino.cc/index.php?topic=521819.msg3558240#msg3558240>)  
#2  
Jan 10, 2018, 06:16 pm (<https://forum.arduino.cc/index.php?topic=521819.msg3558240#msg3558240>)  
Sounds like a hardware issue to me so in addition to provide complete code also provide a

Sounds like a hardware issue to me so in addition to provide complete code also provide a wiring diagram of your setup (including power supply).

Posts: 7,726

pratik24192  
(<https://forum.arduino.cc/index.php?action=profile;u=718542>)



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d;uid=718542;fd619f8=31  
8e8d0d9ddaf64a3df893f  
1d131885d)

### #3

Here I'm mention some portion of my code and I'm indicate by writing `//**** ISSUE *****/` in my code.

[illegible]

```

TCCR1B = 0; // same for TCCR1B
TCNT1 = 0; // initialize counter value to 0
// set compare match register for 1 Hz increments
OCR1A = 15624; // = 1000000 / (64 * 1) - 1 (must be <65536)
// turn on CTC mode
TCCR1B |= (1 << WGM12);
// Set CS12, CS11 and CS10 bits for 64 prescaler
TCCR1B |= (0 << CS12) | (1 << CS11) | (1 << CS10);
// enable timer compare interrupt
TIMSK1 |= (1 << OCIE1A);
sei(); // allow interrupts
}

ISR(TIMER1_COMPA_vect)
{
    if(digitalRead(button1)==LOW) //LOW
    {
        delay(100);

        EEPROM.write(32,0);
        data_store_flag=1;
        Serial.println("Data collection started");
        //#####
    }
    else if(digitalRead(button2)==LOW) // LOW
    {
        delay(100);
        detachInterrupt(1);
        data_store_flag==0;

        //  addr=0;
        //  read_counter = EEPROM.read(32);
        //  Serial.print(read_counter);
        //  for(i=0;i<read_counter;i++)
        //  {
        //      read_data(addr);
        //      addr=addr+1;
        //  }
        Serial.println("Data collection finished");
        //#####
    }
}

void loop()
{
    //Serial.println(digitalRead(button1));
    float val = analogRead(A1);
    float temperature = ((val*1.1)/1024);
    temperature = temperature - 0.5;
    temperature = temperature/0.01;

```

```

float voltage_level = analogRead(A0);
voltage_level = (voltage_level*1.1)/1024;
// Serial.println(voltage_level);
DateTime now = RTC.now();
int year1 = now.year()/100;
int year2 = now.year()%100;
int year = now.year();
int month = now.month();
int date = now.day();
int hour = now.hour();
int minute = now.minute();
int second = now.second();
// Serial.println(year1);
// Serial.println(year2);
// Serial.println(month);
// Serial.println(date);
// Serial.println(hour);
// Serial.println(minute);
// Serial.println(second);
// delay(1000);

if(data_store_flag==1)
{
    write_data(addr,year1);
    addr++;
    counter_eeprom++;
    write_data(addr,year2);
    addr++;
    counter_eeprom++;
    write_data(addr,month);
    addr++;
    counter_eeprom++;
    write_data(addr,date);
    addr++;
    counter_eeprom++;
    write_data(addr,hour);
    addr++;
    counter_eeprom++;
    write_data(addr,minute);
    addr++;
    counter_eeprom++;
    write_data(addr,second);
    addr++;
    counter_eeprom++;
    write_data(addr,temperature);
    addr++;
    counter_eeprom++;
    EEPROM_write_long(34,counter_eeprom);

    Serial.println(set_delay);
    //attachInterrupt(1, wakeup, LOW);

```

\* \* \* \*

\*

★★★★★

Posts: 83,531

([https://forum.arduino.c](https://forum.arduino.cc/index.php?)  
[c/index.php?](https://forum.arduino.cc/index.php?)


Seattle, WA USA

## #4

```
ISR(TIMER1_COMPA_vect)
{
    if(digitalRead(button1)==LOW) //LOW
    {
        delay(100);
    }
}
```

An ISR is supposed to be FAST. Lightning fast. NO `delay()` crap. No blocking code. No calls to functions that rely on interrupts being enabled, like `Serial.print()`.

The art of getting good answers lies in asking good questions.

 **Re: Arduino pro mini Power Down mode issue** (<https://forum.arduino.cc/index.php?topic=521819.msg3560340#msg3560340>)

Jan 12, 2018, 05:44 am (<https://forum.arduino.cc/index.php?topic=521819.msg3560340#msg3560340>)

## #5

[action=profile;u=718542\)](https://forum.arduino.cc/index.php?action=profile;u=718542)



[c/index.php?](https://forum.arduino.cc/index.php?action=profile;u=718542)

[action=profile;u=718542\)](https://forum.arduino.cc/index.php?action=profile;u=718542)



Newbie

Posts: 4

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[c/index.php?](https://forum.arduino.cc/index.php?)

[action=karma;sa=applaud:uid=718542:fd619f8=31](https://forum.arduino.cc/index.php?action=karma;sa=applaud:uid=718542:fd619f8=318e8d0d9ddaf64a3df893f1d131885d)

[8e8d0d9ddaf64a3df893f](https://forum.arduino.cc/index.php?action=karma;sa=applaud:uid=718542:fd619f8=318e8d0d9ddaf64a3df893f1d131885d)

[1d131885d\)](https://forum.arduino.cc/index.php?action=karma;sa=applaud:uid=718542:fd619f8=318e8d0d9ddaf64a3df893f1d131885d)

Basic Low Power based code it will wakeup when Switching Interrupt occur by INTO and INT1.

Both Interrupts are "Level Trigger".

#### PROGRAM :

```
#include "LowPower.h"
#include <avr/sleep.h>
```

```
void setup() {
```

```
    // put your setup code here, to run once:
    Serial.begin(9600);
```

```
    Serial.println("In Setup >>>>>>>>>");
```

```
    pinMode(1,INPUT);
    pinMode(0,INPUT);
```

```
    attachInterrupt(1,wakeup,LOW);
    attachInterrupt(0,sleep,LOW);
```

```
}
```

```
void sleep()
```

```
{
    Serial.println("In Sleep >>>>>>>>>");
}
```

```
void wakeup()
```

```
{
    Serial.println("In wakeup >>>>>>>>>");
}
```

```
void loop() {
```

```
    // put your main code here, to run repeatedly:
```

```
    for(int i=0;i<=10;i++)
    {
        Serial.println("Start");
        Serial.end();
```

```
        LowPower.idle(SLEEP_1S, ADC_OFF, TIMER2_OFF, TIMER1_ON, TIMERO_OFF,
                        SPI_OFF, USART0_OFF, TWI_OFF);
    }
```

```
    delay(1000);
    Serial.begin(9600);
    Serial.println("Stop");
```

```
}
```

## OUTPUT :

```
In Setup >>>>>>>>>
Start
Stop
Start In Setup >>>>>>>> // Stop Switch press (INT1)
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
In wakeup >>>>>>>>>
Start
Stop
Start In Setup >>>>>>>> // Start Switch press (INT0)
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
In Sleep >>>>>>>>>
Start
Stop
```

So, each and every time during sleep duration whenever Interrupt occur at that MCU firstly RESTART than after going to ISR (here two ISR is wakeup or sleep).

Can any one tell me what should I do for solve this issue ?

Thank you.

Regards,  
Pratik

---



**PaulS**  
(<https://forum.arduino.cc/index.php?action=profile;u=16084>)



(<https://forum.arduino.cc/index.php?action=profile;u=16084>)



Brattain Member


Posts: 83,531

Karma: 2447 [\[add\]](#)

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

[action=karma;sa=applaud;uid=16084;fd619f8=318e8d0d9ddaf64a3df893fd131885d](https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=16084;fd619f8=318e8d0d9ddaf64a3df893fd131885d))

Seattle, WA USA

 **Re: Arduino pro mini Power Down mode issue** (<https://forum.arduino.cc/index.php?topic=521819.msg3564892#msg3564892>)  
Jan 15, 2018, 01:21 pm (<https://forum.arduino.cc/index.php?topic=521819.msg3564892#msg3564892>)

#6

Code: [\[Select\]](#)

```
Serial.begin(9600);

Serial.println("In Setup >>>>>>>>");

pinMode(1, INPUT);
pinMode(0, INPUT);
```

AFTER starting the Serial instance, you f\*\*ked with the hardware serial pins. Why?

Those are pin numbers, not interrupt numbers.

Code: [\[Select\]](#)

```
for(int i=0;i<=10;i++)
{
  Serial.println("Start");
  Serial.end();
```

What do you think print() is going to do in the second iteration of that loop? If you said "nothing", you got it right. Any other answer is wrong.

Calling end() is NOT what you want to be doing there. flush(), maybe.

Why do you need to call LowPower.idle() 10 times? That seems useless. If it won't work the first time, what makes you think it will work the 7th or 8th time?

The art of getting good answers lies in asking good questions.

**pylon**  
(<https://forum.arduino.cc/index.php?action=profile;u=99350>)




(<https://forum.arduino.cc/index.php?action=profile;u=99350>)



Tesla Member

Posts: 7,726

 **Re: Arduino pro mini Power Down mode issue** (<https://forum.arduino.cc/index.php?topic=521819.msg3565214#msg3565214>)  
Jan 15, 2018, 05:49 pm (<https://forum.arduino.cc/index.php?topic=521819.msg3565214#msg3565214>)

#7

Code: [\[Select\]](#)

```
void sleep()
{
  Serial.println("In Sleep >>>>>>>>");
}

void wakeup()
{
  Serial.println("In wakeup >>>>>>>>");
}
```

(<https://forum.arduino.cc/index.php?action=karma;sa=applaud;uid=99350;fd619f8=318e8d0d9ddaf64a3df893fd131885d>)

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## => Programming Questions ▼

(<https://www.usf.edu/college-of-engineering-and-computer-science/undergraduate/undergraduate-research/undergraduate-research-fellowships/undergraduate-research-fellowships-faq>)