

GoldSTEM_Lesson_22_LCD_Clock

tm 4-02-2016

For this experiment uses the same setup as Lesson 21.



Load the Code

GoldSTEM_Lesson_22_LCD_Clock_Calendar

```
//GoldSTEM_Lesson_22_LCD_Clock tm 04-02-2016
```

```
#include <Wire.h>
#include "ds3231.h"
#include <LiquidCrystal.h>
```

```
LiquidCrystal lcd(7,8,9,10,11,12);
```

```
#define BUFF_MAX 128
```

```
uint8_t time[8];
char recv[BUFF_MAX];
unsigned int recv_size = 0;
```

```
unsigned long prev, interval = 1000;
```

```
void setup()
```

```
{  
  Serial.begin(9600);  
  Wire.begin();  
  DS3231_init(DS3231_INTCN);  
  memset(recv, 0, BUFF_MAX);
```

```
  lcd.begin(16, 2);
```

```
}
```

```
void loop()
```

```
{  
  char in;  
  char tempF[6];  
  float temperature;  
  char buff[BUFF_MAX];  
  unsigned long now = millis();  
  struct ts t;
```

```
  // LCD Display
```

```
  if ((now - prev > interval) && (Serial.available() <= 0)) {  
    DS3231_get(&t); //Get time
```

```
    lcd.clear();  
    lcd.setCursor(0,0);
```

```
    lcd.print("Time: ");  
    lcd.print(t.hour);
```

```
lcd.print(":");
if(t.min<10)
{
  lcd.print("0");
}
lcd.print(t.min);
lcd.print(":");
if(t.sec<10)
{
  lcd.print("0");
}
lcd.print(t.sec);

lcd.setCursor(0,1);

lcd.print(t.mon);
if(t.mday<10)
{
  lcd.print(" ");
}
lcd.print(t.mday);
lcd.print(" ");
lcd.print(t.year);
```

```
prev = now;
}
}
```

Questions

Can you add the word Time in front of the Time on the LCD?

End of Lesson