

Arduino IDE 2.3.7

File Edit Sketch Tools Help

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TemploggerSwitch.ino

```
51 void LCD_preinit(void),
52 void LCD_delay_us(uint16_t us); // Temporary until time-logic synchronization.
53 void LCD_write_nibble(uint8_t nibble);
54 void LCD_write_cmd(uint8_t cmd);
55 void LCD_write_data(char c);
56 void LCD_write_string(const char* str);
57 void LCD_cursor(uint8_t row, uint8_t col);
58 void LCD_update_mode(temp_unit_t unit);
59
60 int main(void) {
61
62     // Variable Space Reservation
63     uint16_t adc_result;
64     int16_t tempC_x10;
65     uint16_t tempDisplay_x10;
66     uint32_t last_time = 0;
67     uint32_t now;
68     uint8_t last_btn_state = 1; // Pull-Up means release = high. So it starts "off."
69     uint8_t curr_btn_state;
70
71     LCD_preinit();           // Initialize MCU with LCD.
72     LCD_init();             // Initialize LCD.
73     LCD_update_mode(currentUnit); // Turn LCD on.
74     Timer1_init();          // Initialize Timer1.
75     ADC_init();             // Initialize ADC.
76     UART_init();            // Initialize UART.
77     BTN_init();             // Initialize BTN.
78     sei();                  // Enables interrupts.
79 }
```

Output Serial Monitor X

Message (Enter to send message to 'Arduino Uno' on 'COM4')

```
16:26:05.991 -> Temperature is 293.8 K
16:26:06.952 -> Temperature is 293.8 K
16:26:07.948 -> Temperature is 293.9 K
16:26:08.951 -> Temperature is 293.8 K
16:26:09.967 -> Temperature is 293.8 K
16:26:10.950 -> Temperature is 293.9 K
16:26:11.977 -> Temperature is 293.8 K
16:26:12.969 -> Temperature is 293.8 K
16:26:13.975 -> Temperature is 293.8 K
16:26:14.964 -> Temperature is 293.8 K
16:26:15.951 -> Temperature is 293.8 K
16:26:16.994 -> Temperature is 293.8 K
16:26:17.992 -> Temperature is 293.8 K
16:26:18.996 -> Temperature is 20.7 C
16:26:19.965 -> Temperature is 20.7 C
```