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lm73\_functions.c

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```
// lm73_functions.c
// Roger Traylor 11.28.10

#include <util/twi.h>
#include "lm73_functions.h"
#include <stdlib.h>
#include <util/delay.h>

volatile uint8_t lm73_wr_buf[2];
volatile uint8_t lm73_rd_buf[2];

//*****
**
uint8_t lm73_temp_convert(char temp_digits[], uint16_t lm73_temp, uint8_t f_not_c){
    uint8_t temp = 0;
    // Only read positive temperatures; check sign bit
    if (((lm73_temp) & (1<<15)) == 0) {
        temp = (lm73_temp>>7) & 0xFF;

        if (f_not_c != 0) {
            temp = (int)((temp * 1.8) + 32);
        }
    }

    itoa(temp, temp_digits, 10);
    return temp;
}
```