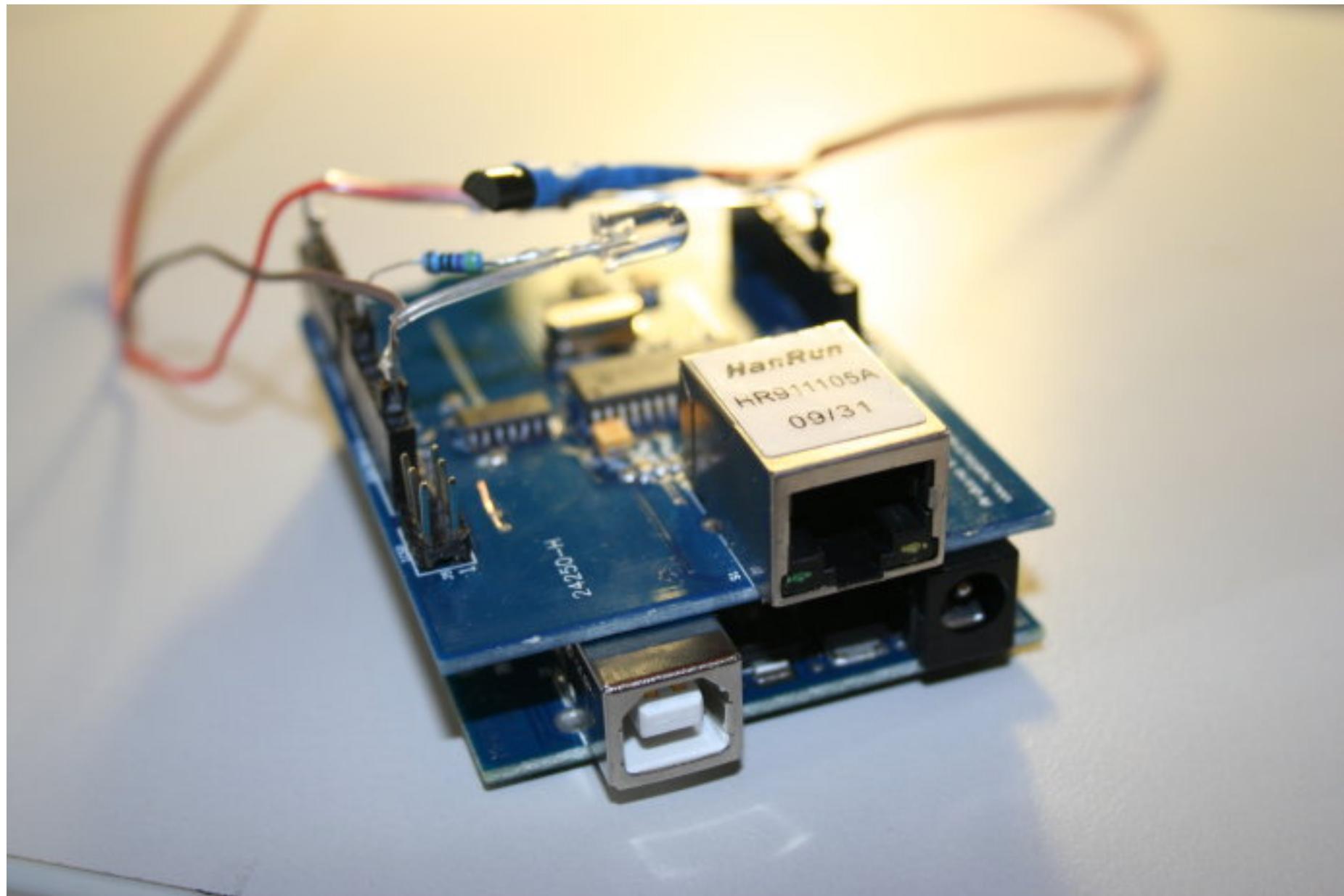


# Building a Web Enabled Temperature Sensor

# Building a Web Enabled Temperature Sensor

...or, my slide into Arduino powered  
madness...



...the other choice over Christmas was spending time with the in laws...

```
void setup()
{
  Serial.begin(9600);
}

void loop()
{
  Serial.println("Sorry, can't talk now, busy.");
}
```

...my wife is also quite patient...

```
#include <OneWire.h>
#include <DallasTemperature.h>

#define ONEWIRE 3

OneWire oneWire(ONEWIRE);
DallasTemperature sensors(&oneWire);

...

void setup()
{
    Serial.begin(9600);
    sensors.begin();
}

void loop()
{
    sensors.requestTemperatures();
    delay(1000);
}
```

...you know, let's just look at the compiler...



...that last picture was from <http://gothsinhotweather.com...>

```
#include <enc28j60.h>
#include <etherShield.h>
#include <ip_arp_udp_tcp.h>
#include <ip_config.h>
#include <net.h>
#include <websrv_help_functions.h>
```

...

```
#define MYWWWPORT 80
#define BUFFER_SIZE 550
#define ERROR_500 "HTTP/1.0 500 Error\r\nContent-Type: text/html\r\n\r\n<h1>500
Error</h1>"
```

```
static uint8_t mymac[6] = {0x54, 0x55, 0x58, 0x10, 0x00, 0x24};
static uint8_t myip[4] = {192, 168, 1, 253};
static uint8_t buf[BUFFER_SIZE + 1];
char data[BUFFER_SIZE + 1];
```

```
// The ethernet shield
EtherShield es = EtherShield();
```

...

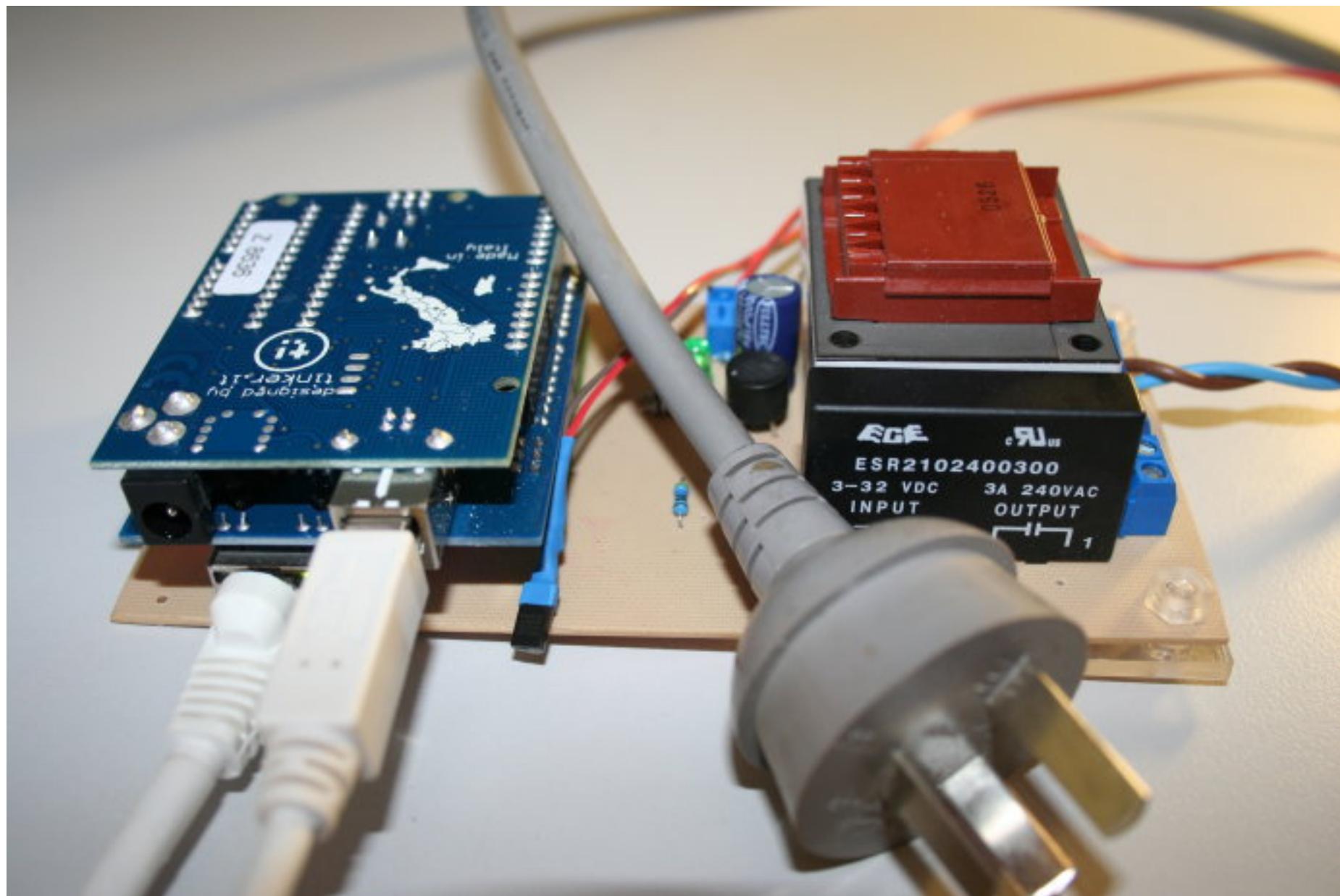
...blah blah blah TCP handler code...

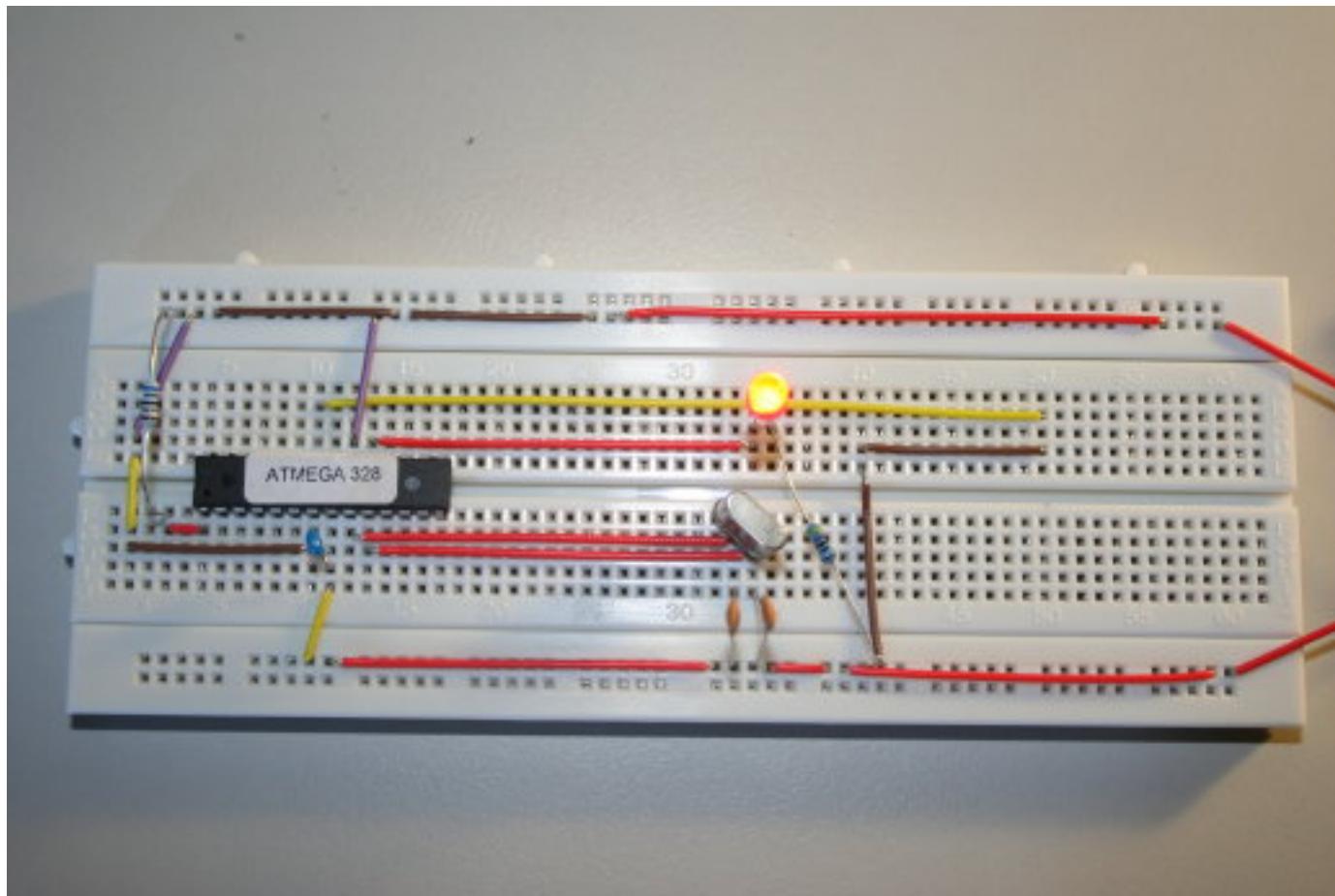
```
uint16_t http200ok(void)
{
    return(es.ES_fill_tcp_data_p(buf, 0,
        PSTR("HTTP/1.0 200 OK\r\nContent-Type: text/html\r\n"
              "Pragma: no-cache\r\n\r\n")));
}

// prepare the webpage by writing the data to the tcp send buffer
uint16_t print_webpage(uint8_t *buf)
{
    uint16_t plen;
    plen = http200ok();
    plen = es.ES_fill_tcp_data_p(buf, plen,
        PSTR("<html><head><title>Temperature sensor</title>"
              "</head><body><pre>"));
    plen = es.ES_fill_tcp_data(buf, plen, data);
    plen = es.ES_fill_tcp_data_p(buf, plen,
        PSTR("</pre></body></html>"));

    return(plen);
}
```

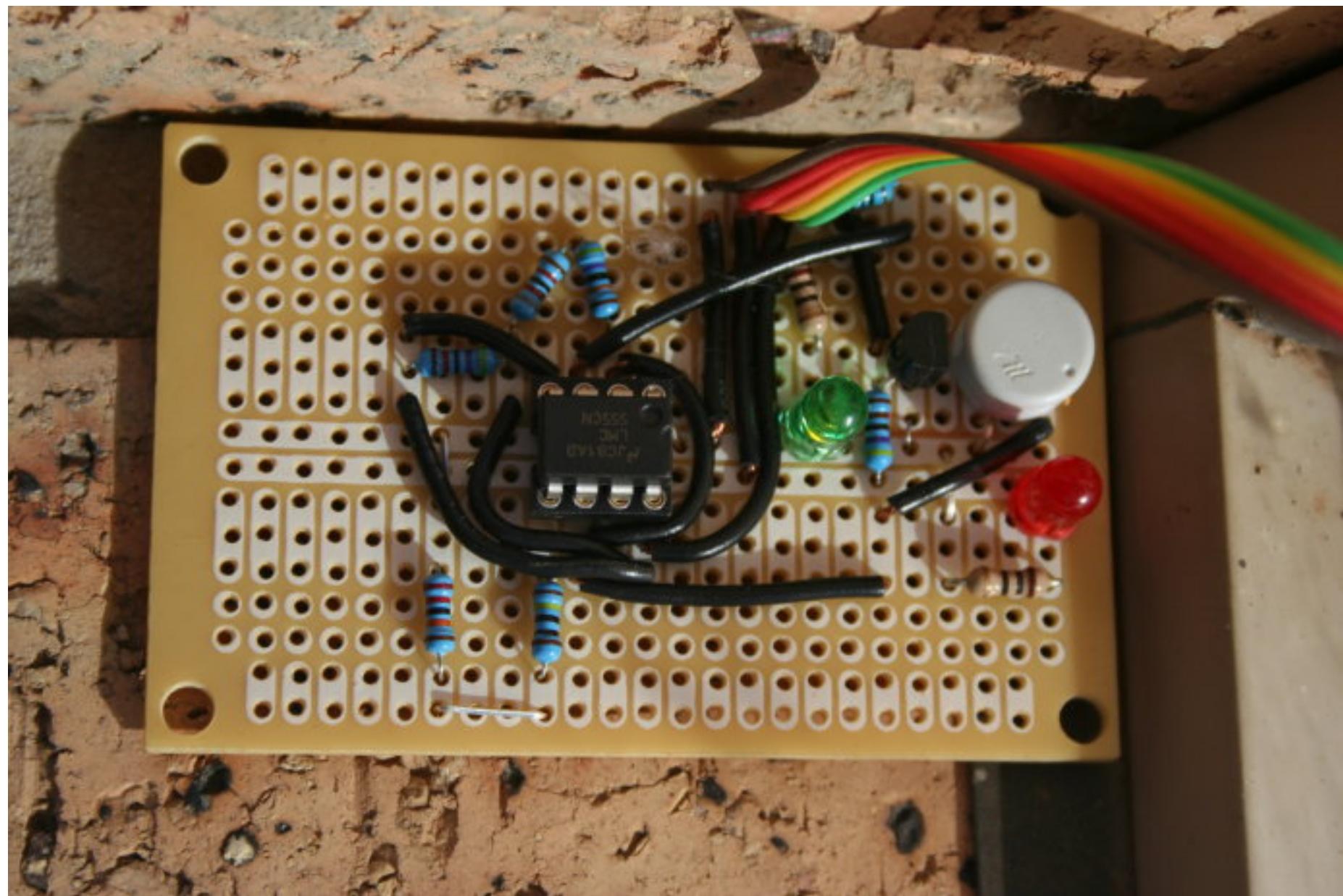
...actually, back to the compiler...

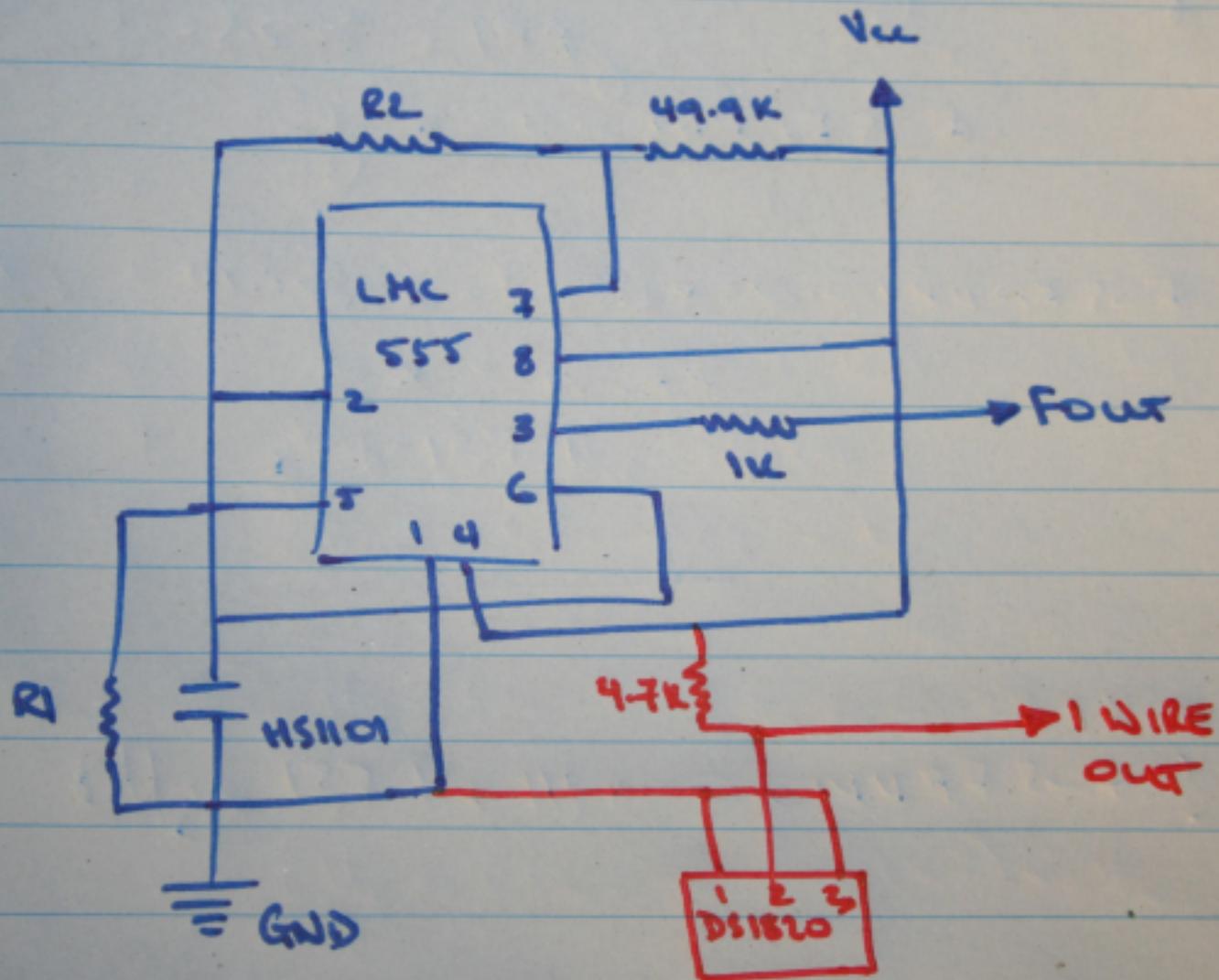














DestinAtor<sup>3</sup>

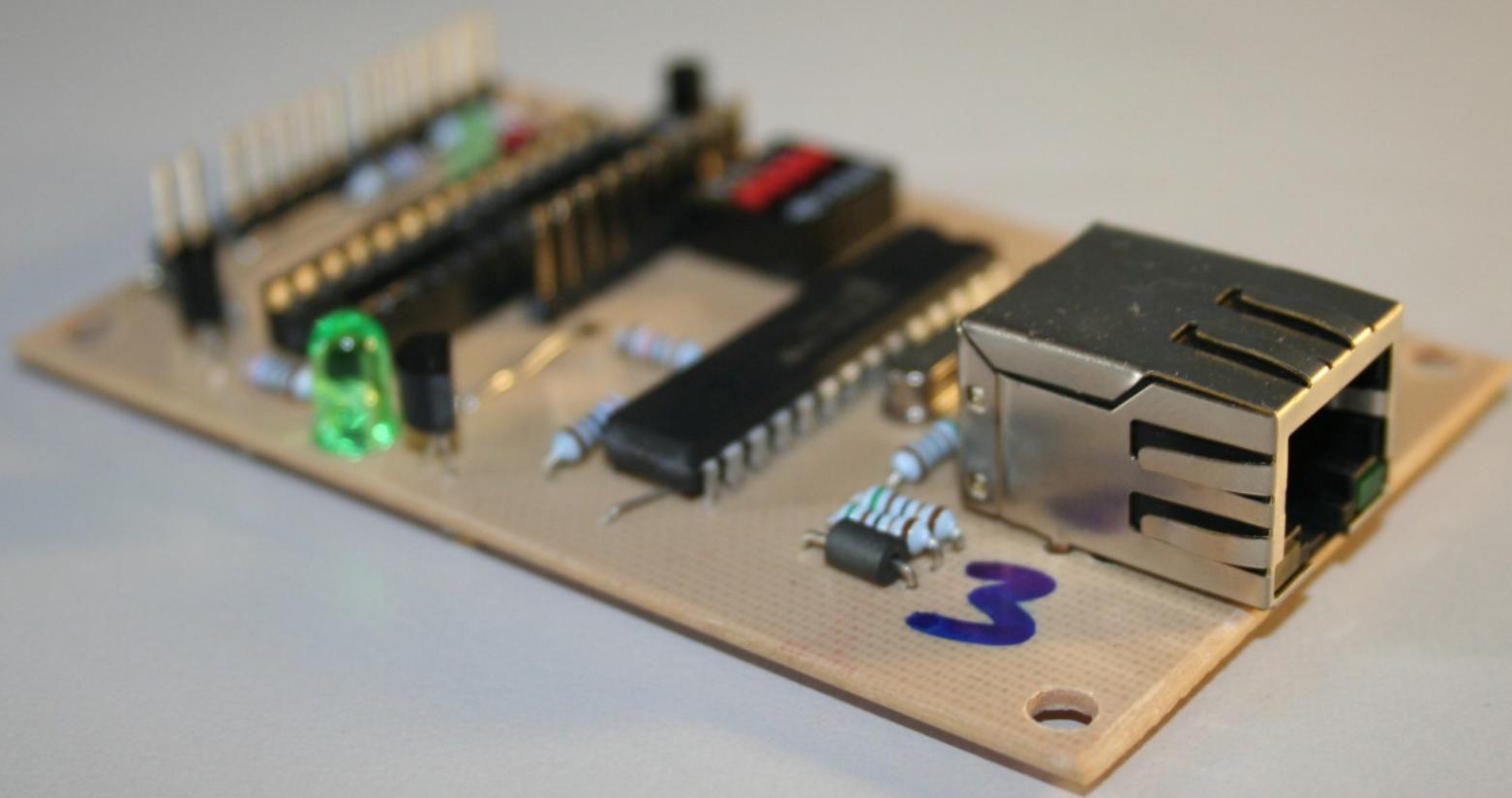
Personal Navigation Software and Maps

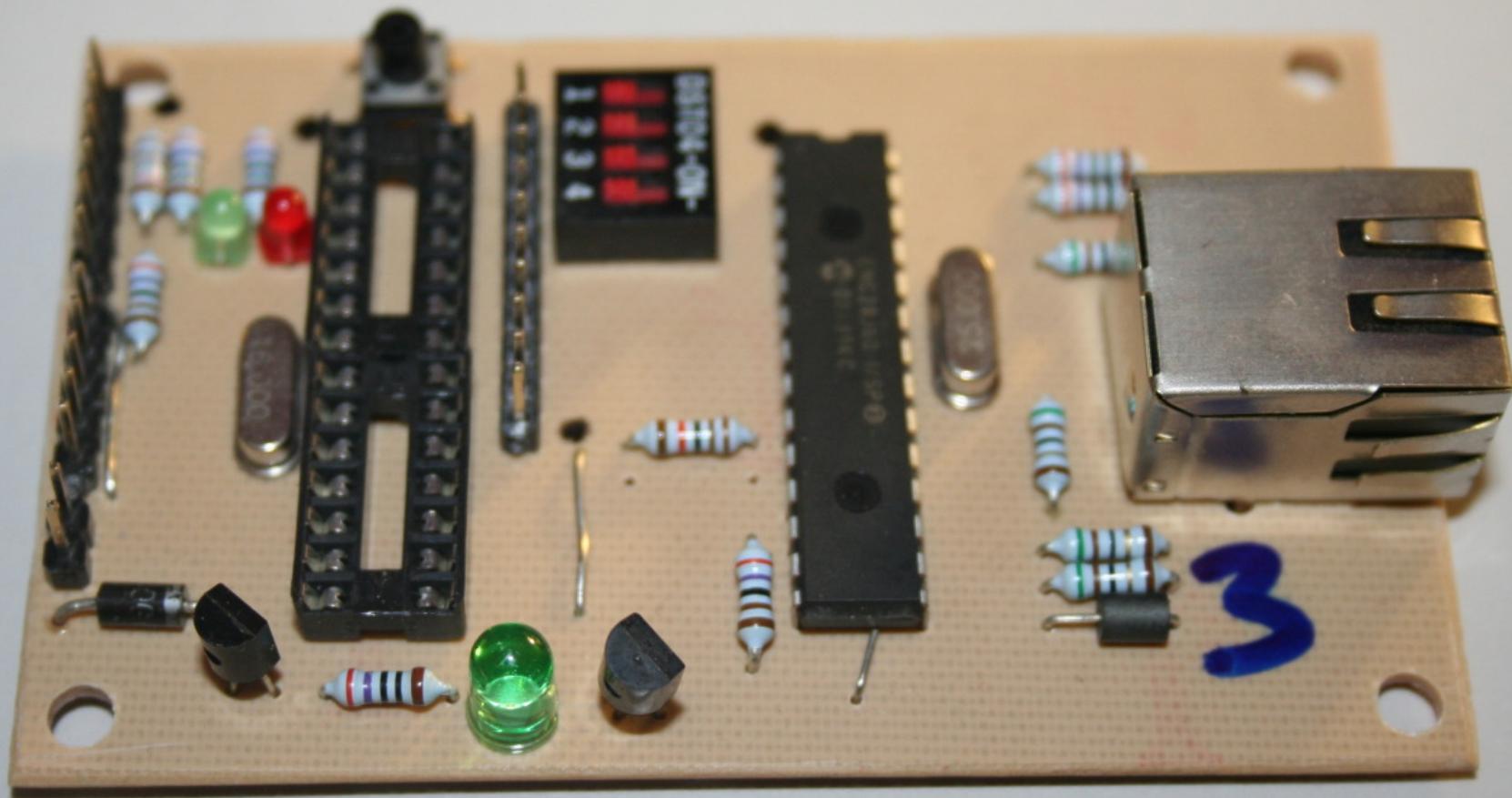
Microsoft

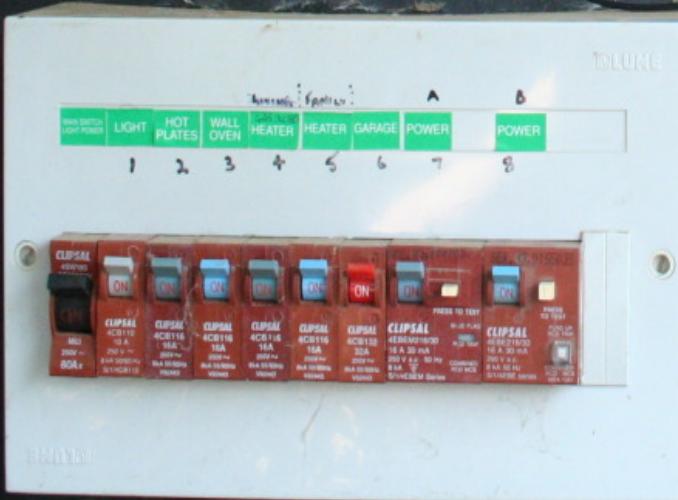












MAIN SWITCH OR PEAK KWS.  
TOP ELEMENT  
BOTTOM ELEMENT



