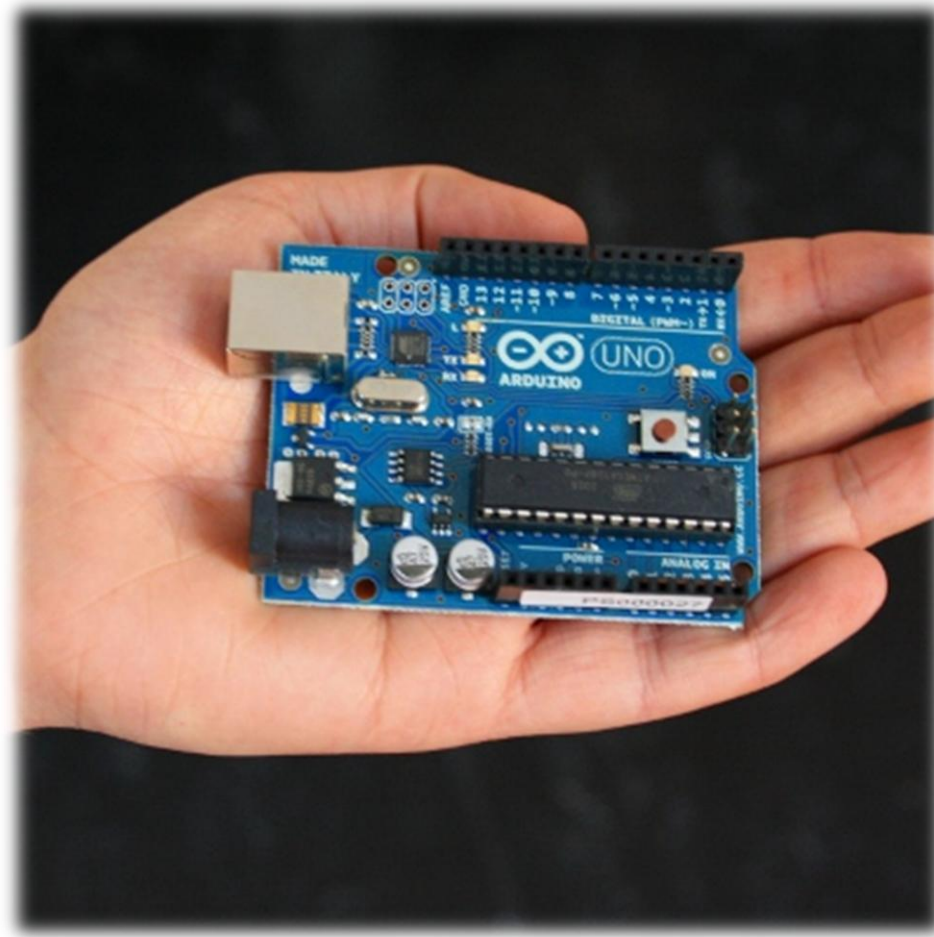


Komunikácia s reálnym svetom



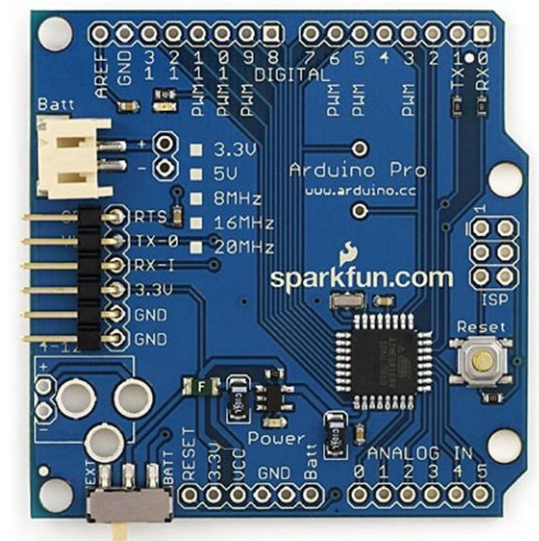
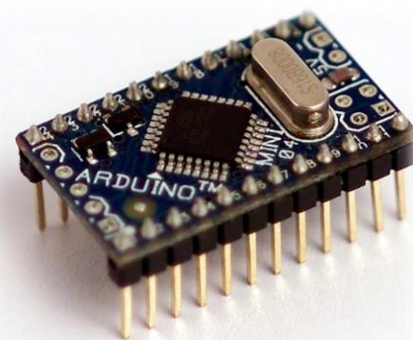
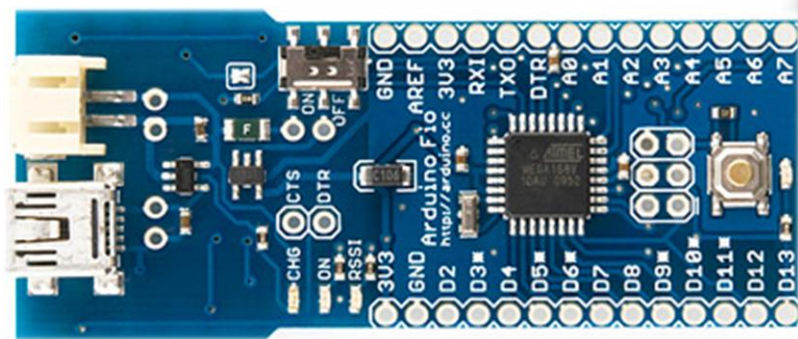
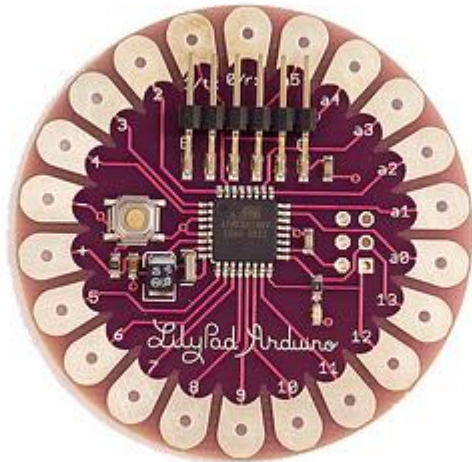
- Čo to je?
- Prečo komunikovať s reálnym svetom?
- Čo nám v tom bráni?

Arduino

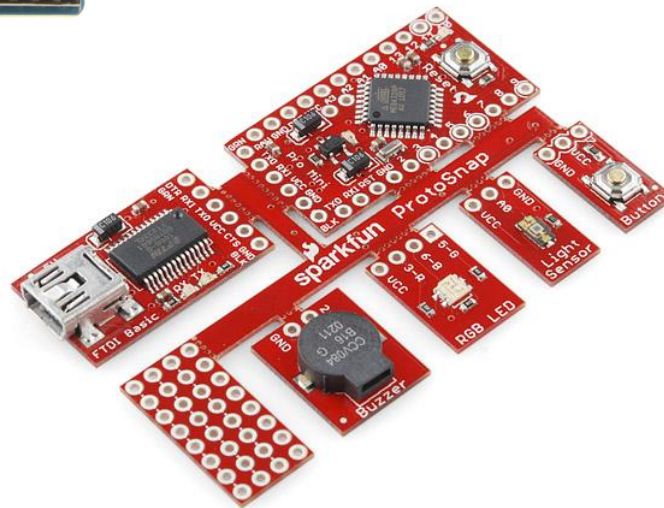
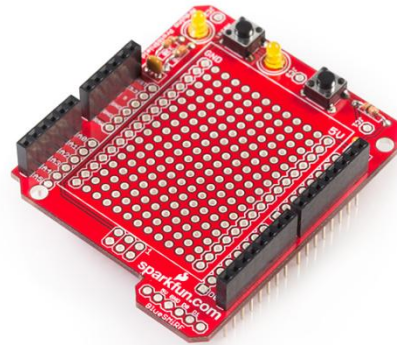
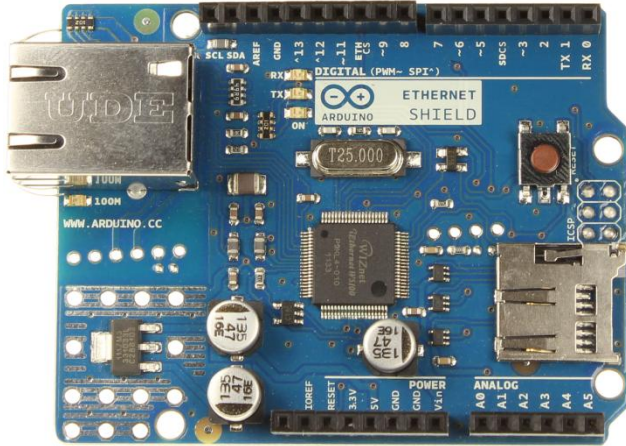


- **Elektronická platforma vyvinutá pre začiatočníkov**
- **Flexibilný a jednoducho použiteľný software a hardware**
- **Open-source**
- **Veľká komunita**

Arduino - hardware



Arduino - shields



Arduino - software

A screenshot of the Arduino IDE interface. The window title is "Blink | Arduino 1.0". The menu bar includes "File", "Edit", "Sketch", "Tools", and "Help". Below the menu bar is a toolbar with icons for checking, running, saving, uploading, and downloading. A tab labeled "Blink" is active. The main text area contains the following code:

```
/*  
  Blink  
  Turns on an LED on for one second, then off for one second, repeatedly.  
  
  This example code is in the public domain.  
  */  
  
void setup() {  
  // initialize the digital pin as an output.  
  // Pin 13 has an LED connected on most Arduino boards:  
  pinMode(13, OUTPUT);  
}  
  
void loop() {  
  digitalWrite(13, HIGH); // set the LED on  
  delay(1000);             // wait for a second  
  digitalWrite(13, LOW);  // set the LED off  
  delay(1000);             // wait for a second  
}
```

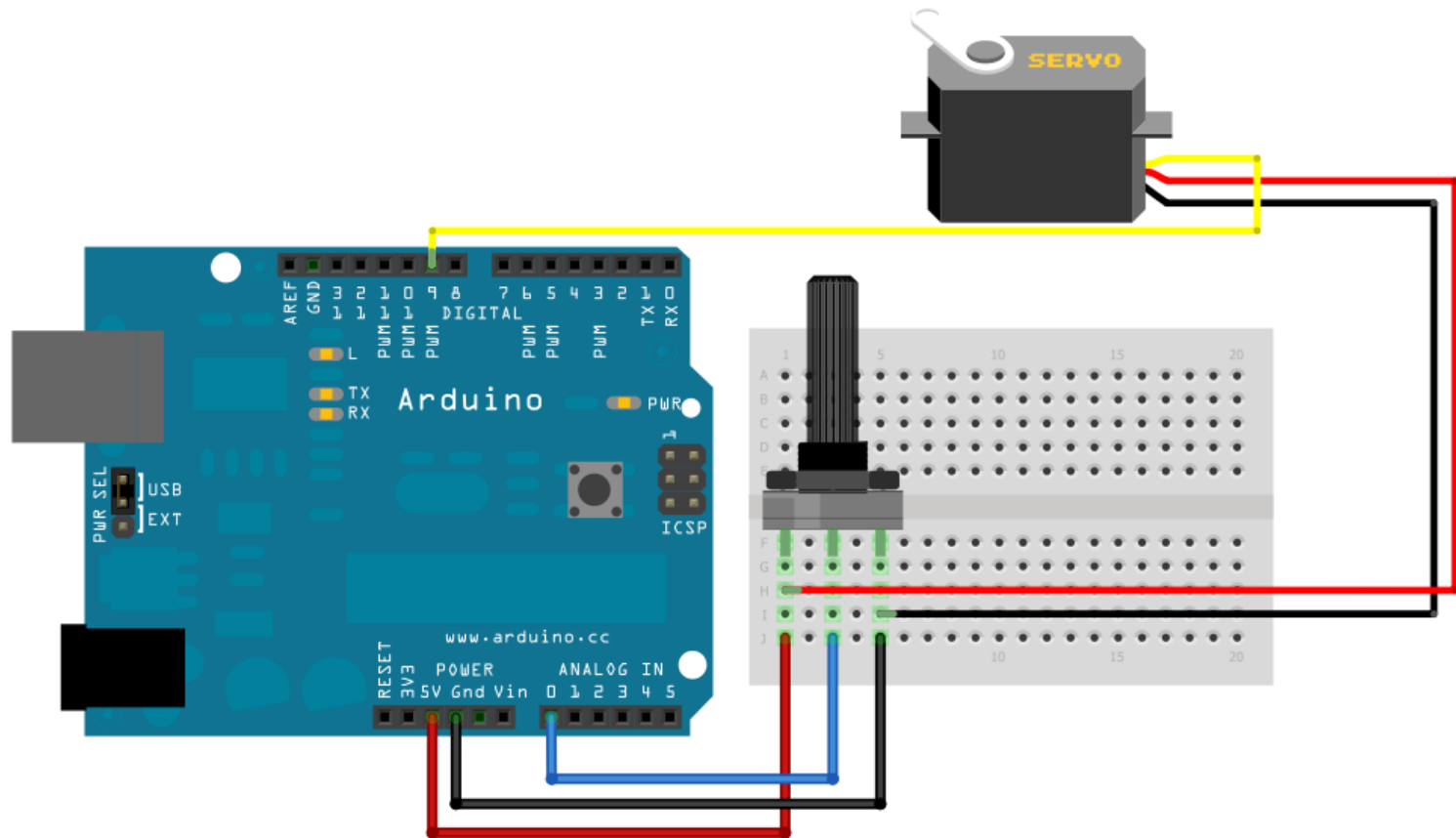
The status bar at the bottom shows "1" on the left and "Arduino Uno on COM14" on the right.

- **OBDuino**
 - <http://code.google.com/p/opengauge/wiki/OBDuino32K>
- **ServerDuino**
 - <https://github.com/cbuchler/ServerDuino>
- **High Altitude Ballon**
 - <http://www.sparkfun.com/tutorials/180>

Arduino - ukážka č. 1



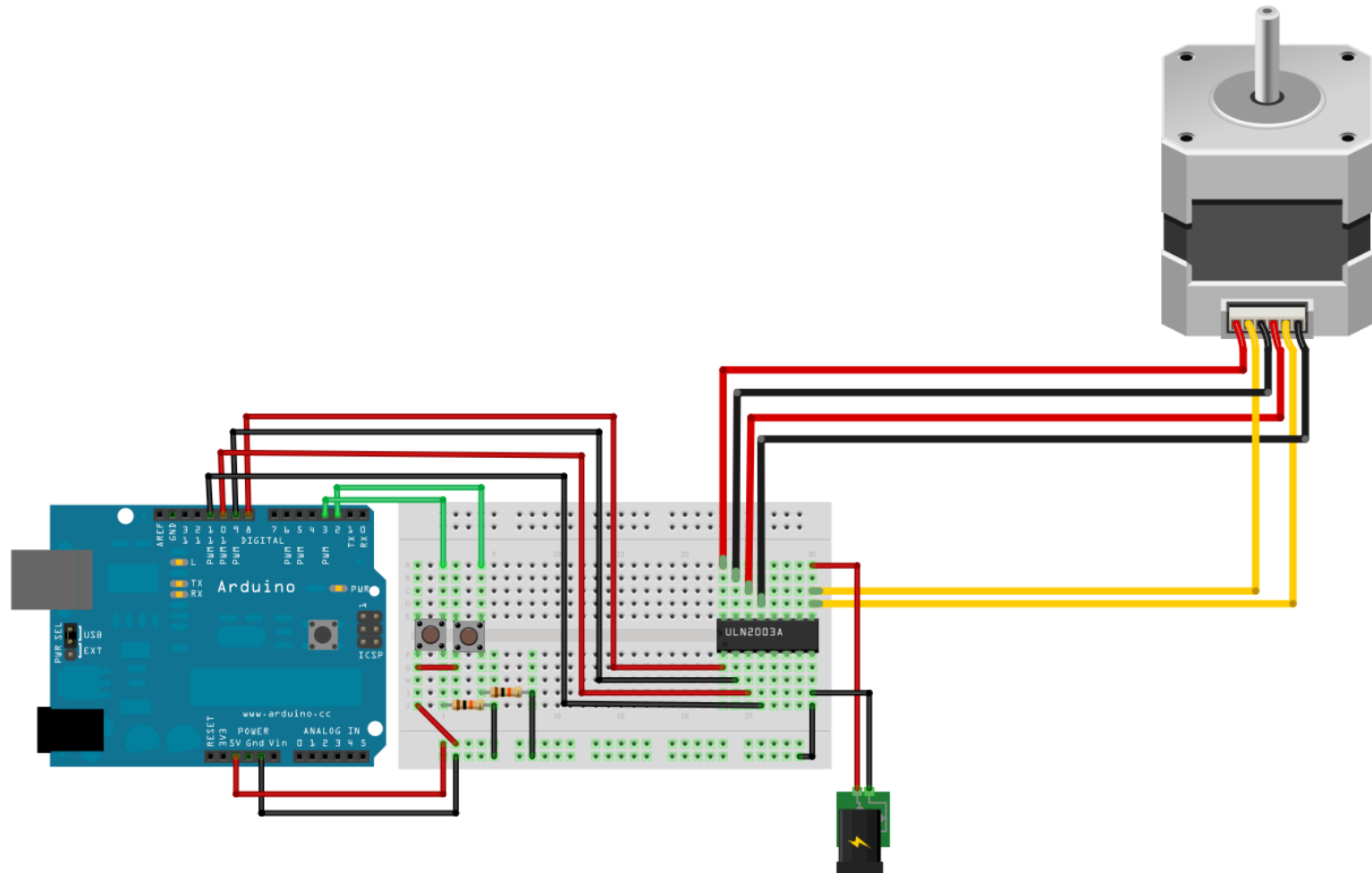
- Servo



Arduino - ukážka č. 1



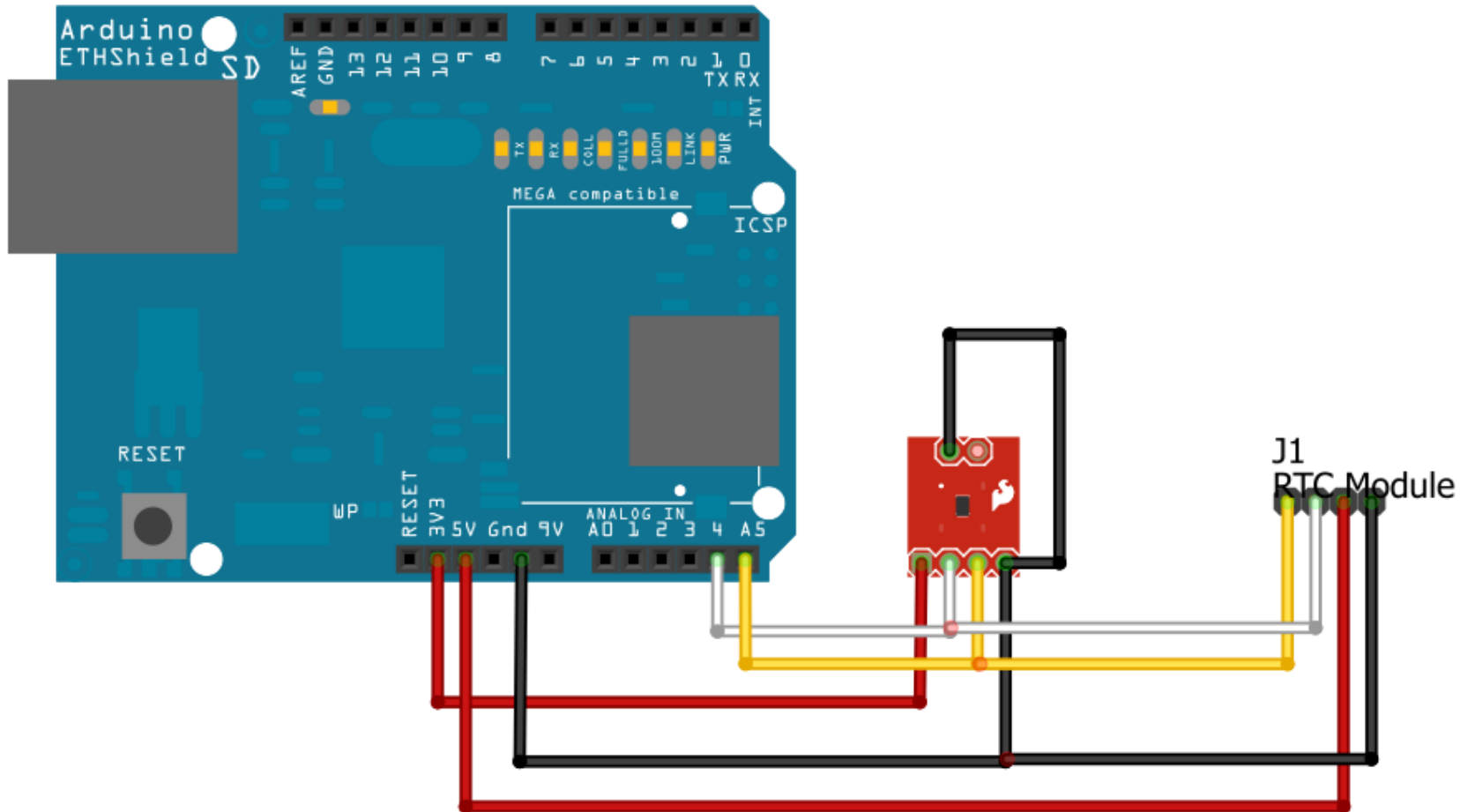
- **Krokový motor**



Arduino - ukážka č. 2



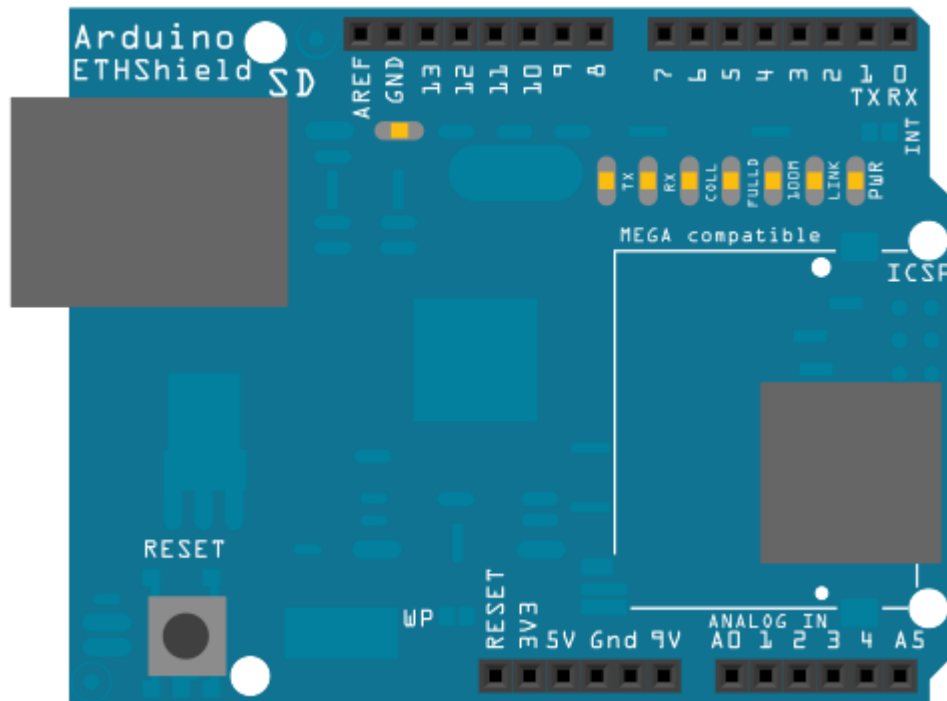
- Snímania a ukladanie teploty



Arduino - ukážka č. 3



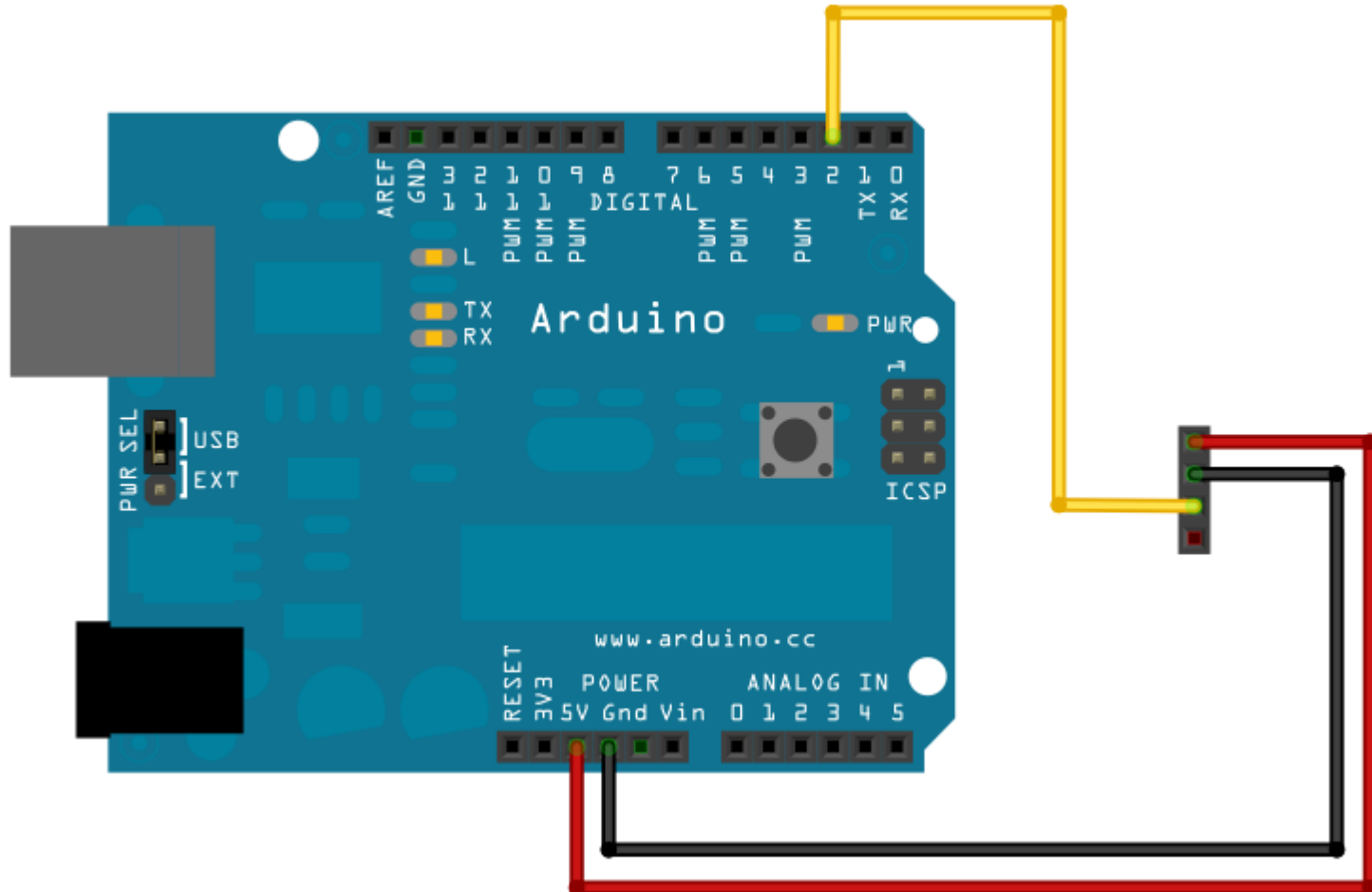
- **Web server**



Arduino - ukážka č. 4



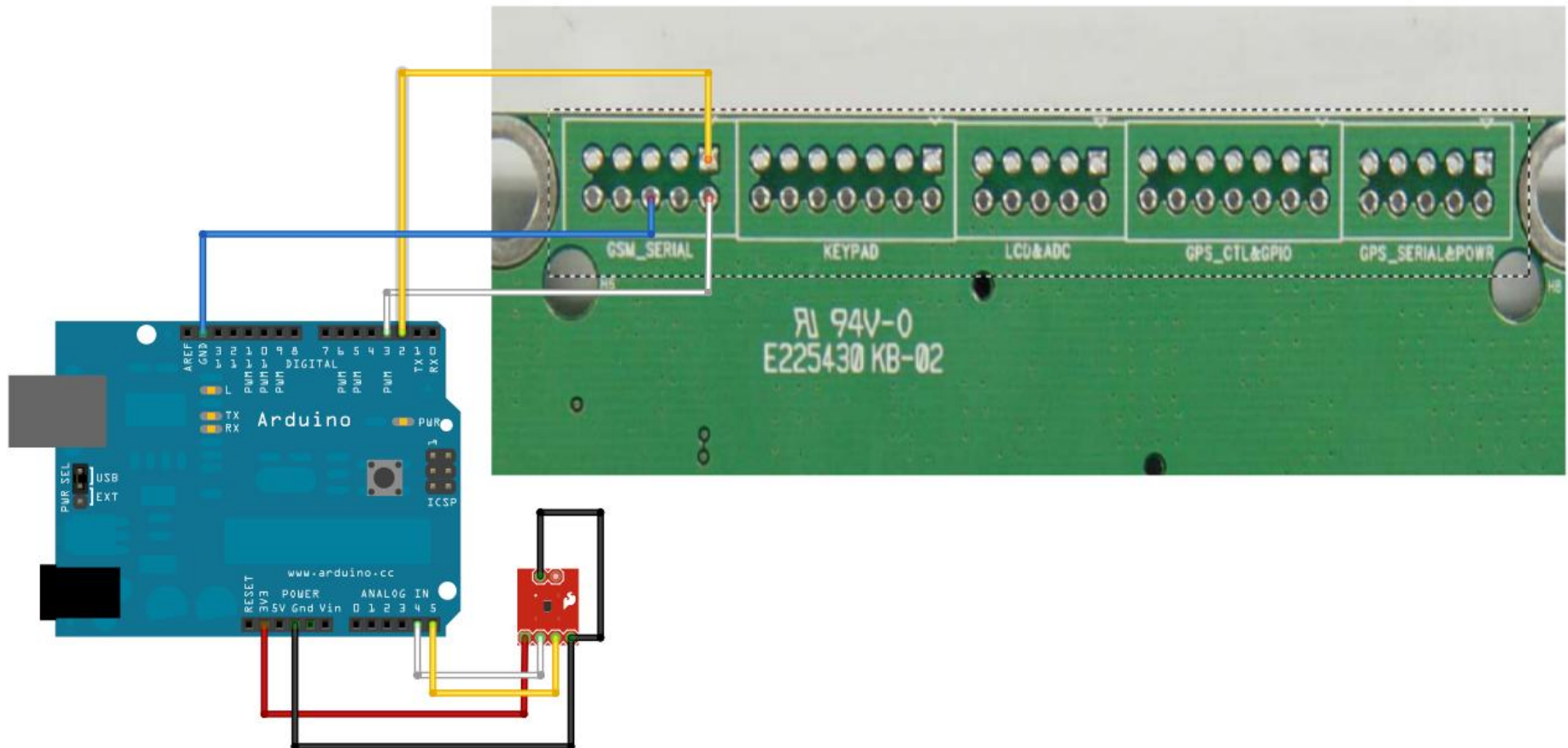
- GPS



Arduino - ukážka č. 5



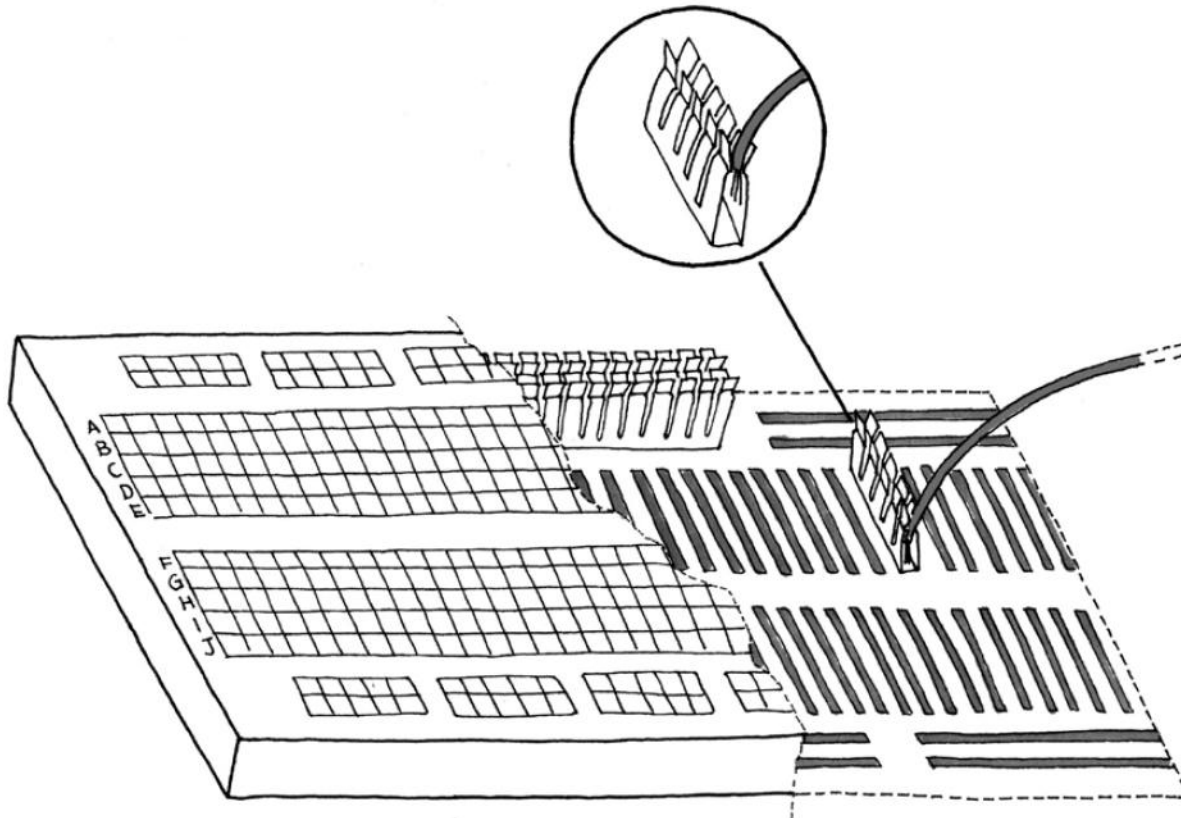
- GSM



Arduino - príklady



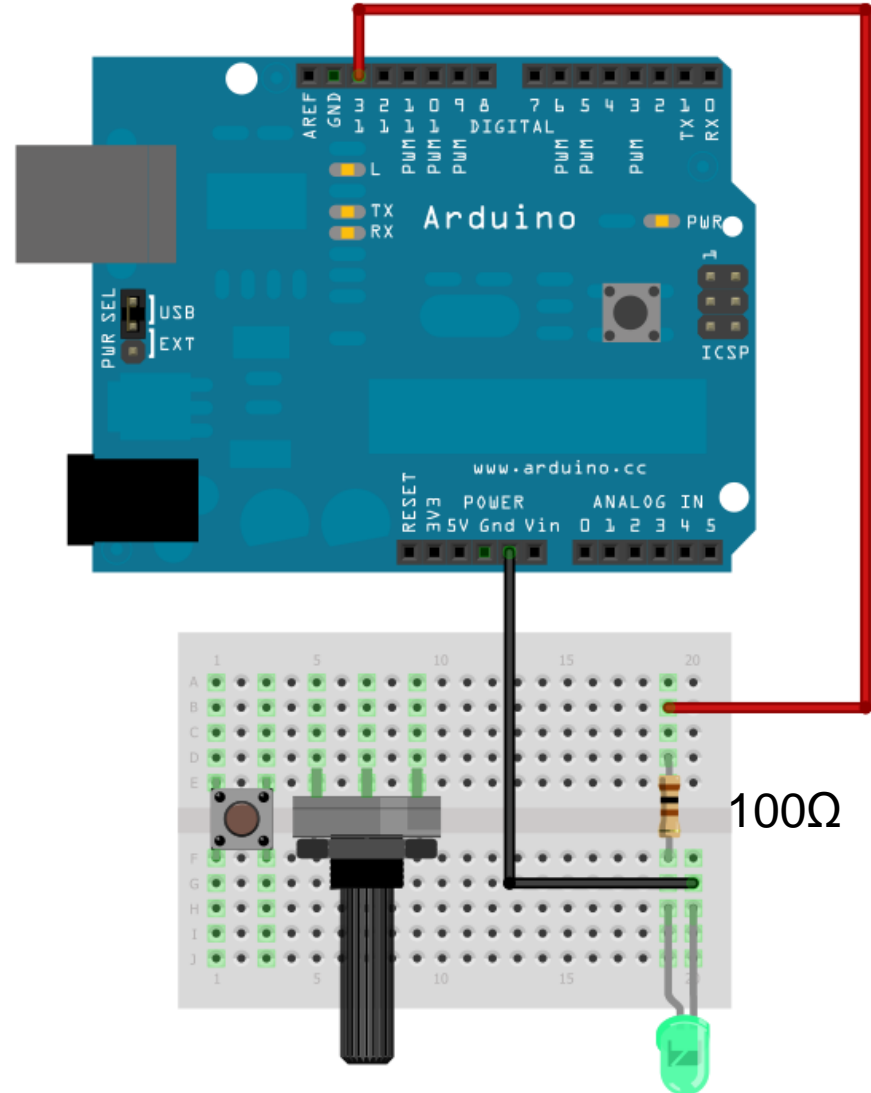
- Čo je to prepojovacie pole?



Arduino - příklad č. 1



- Hello World!

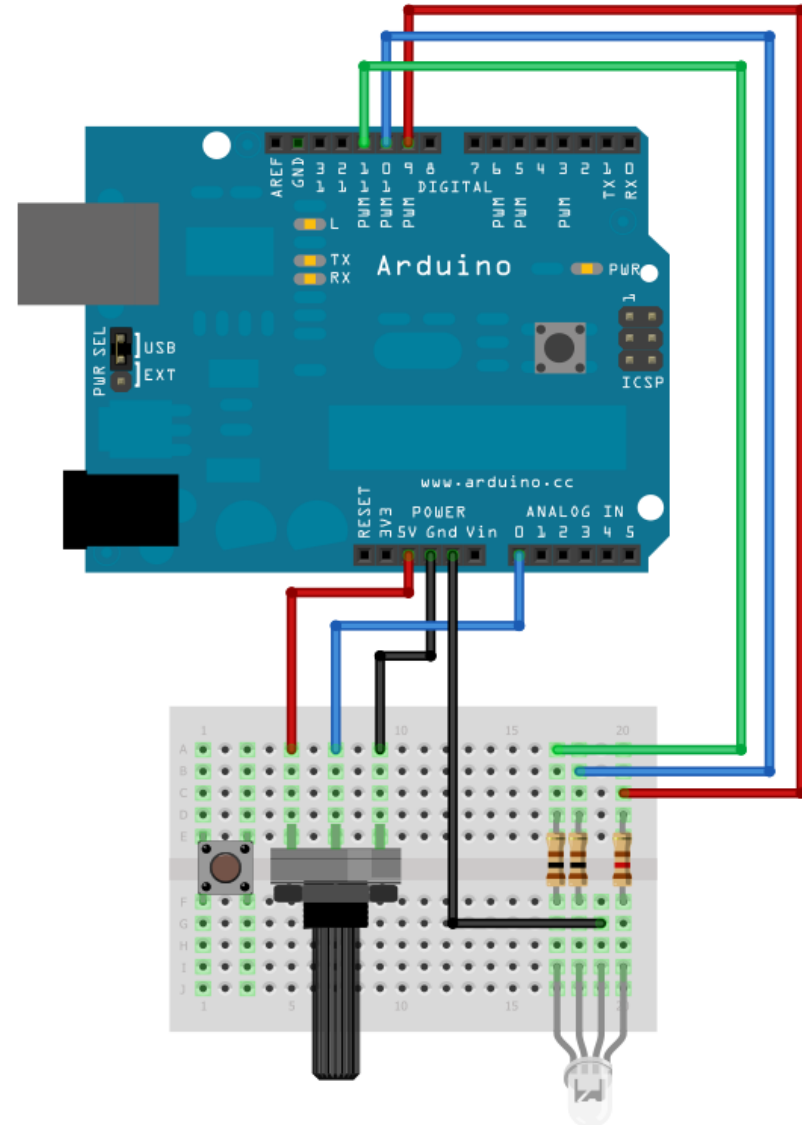


100Ω

Arduino - příklad č. 2



- RGB lampička



100Ω

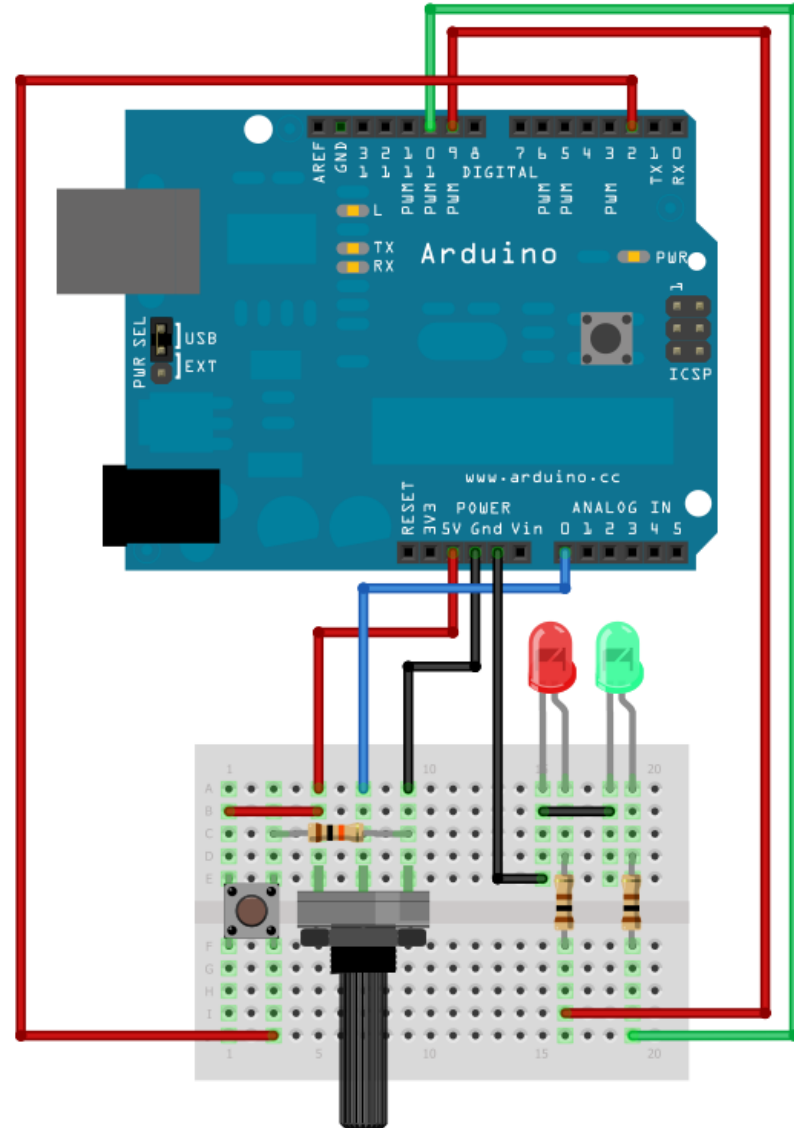


150Ω

Arduino - příklad č. 3



- LED prepínač



100Ω



10kΩ

Ďakujem za pozornosť