

When  met 

@kyungw00k

Topic

- Arduino
- node.js + Arduino
 - Demo



Arduino is an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software. It's intended for artists, designers, hobbyists, and anyone interested in creating interactive objects or environments.

MADE
IN ITALY

AREF GND 13 12 11 10 9 8 7 6 5 4 3 2 1
DIGITAL (PWM ~) TX → RX ← 0

ARDUINO
UNO

TX
RX

ON

SPK16.000Y

RESET-EN

RESET

ICSP

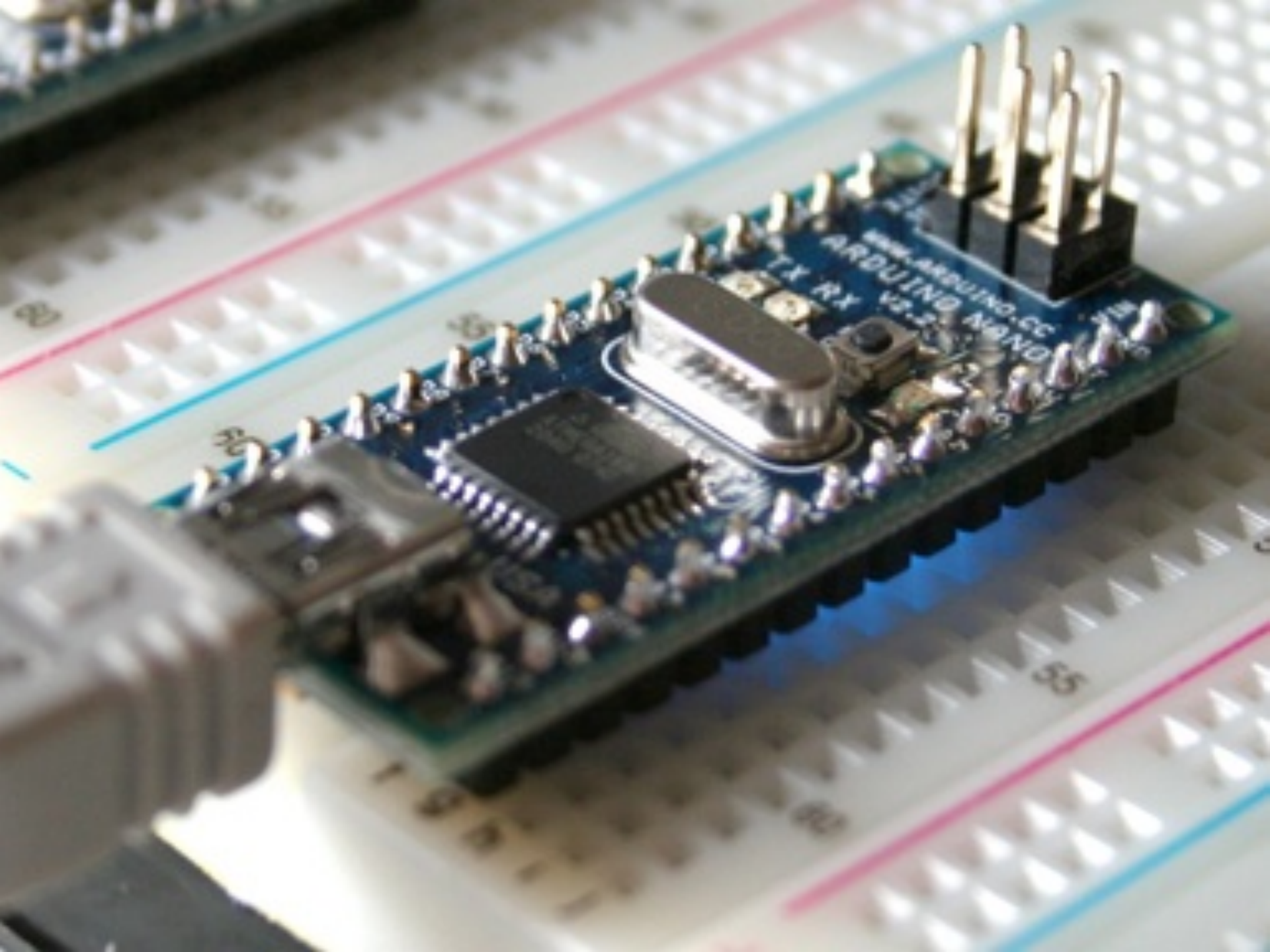
WWW.ARDUINO.CC

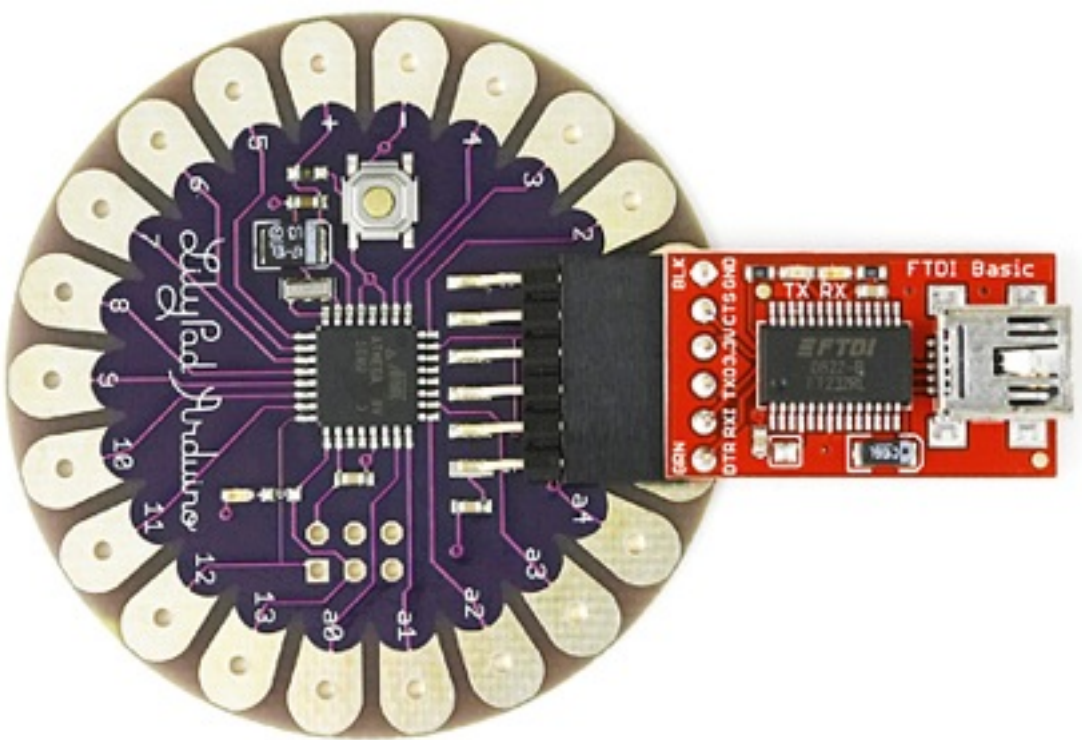
RESET
3.3V
5V
GND
GND
Vin

ANALOG IN
A0
A1
A2
A3
A4
A5

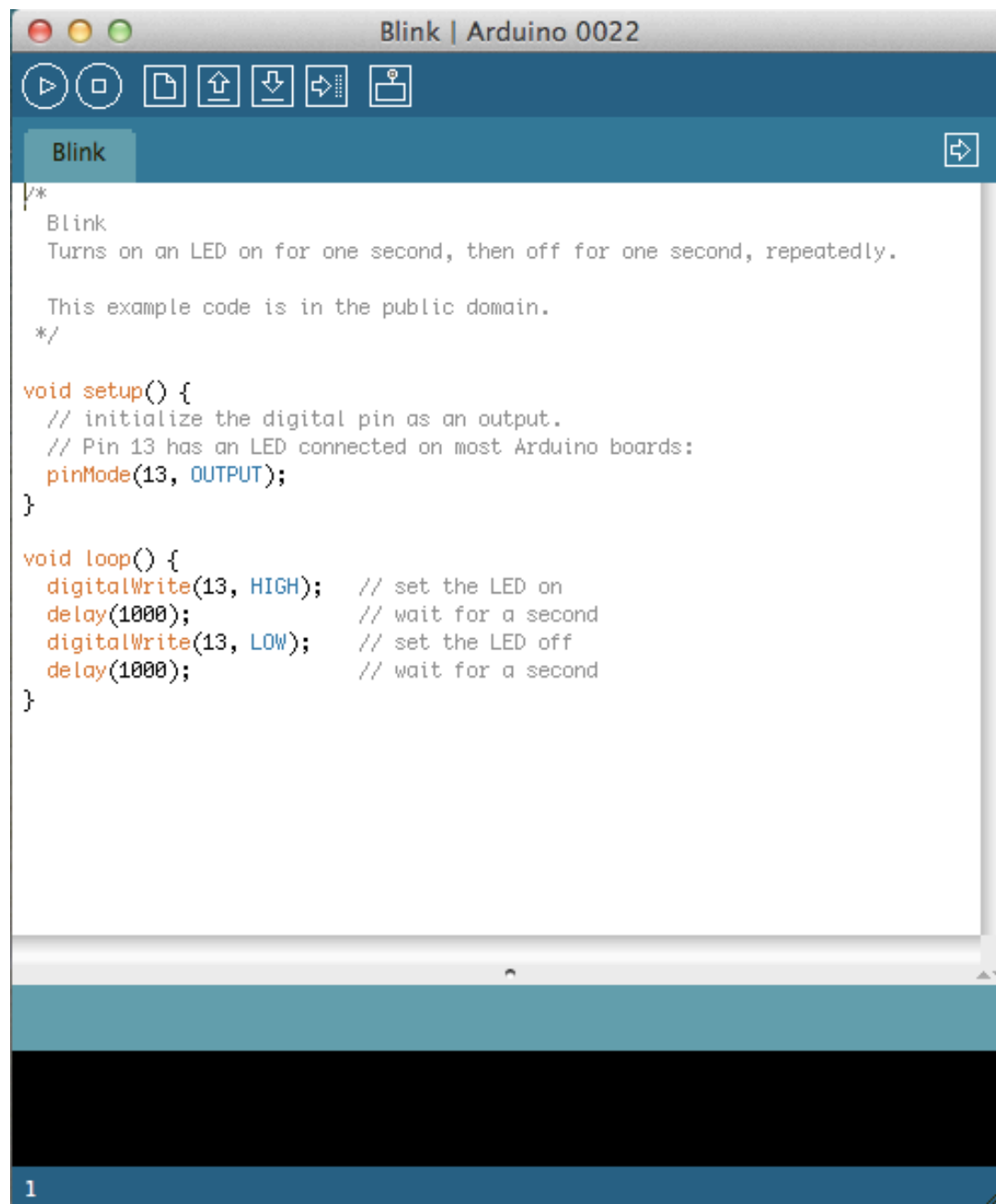
10
47
25V

10
47
25V









자주 쓰는 API

- Digital I/O
 - pinMode()
 - digitalRead()
 - digitalWrite()
- Analog I/O
 - analogRead()
 - analogWrite()

Pros/Cons

- Pros
 - (전자과 만나와도) 쉽게 사용할 수 있다.
 - Prototyping이 쉽다.
- Cons
 - 단가가 비싸다.
 - 부피가 크다.

Let's hook up with  node.js™

Requirements

- Software
 - node.js
 - node-arduino
 - node-serialport
- Hardware
 - Any Arduino Board

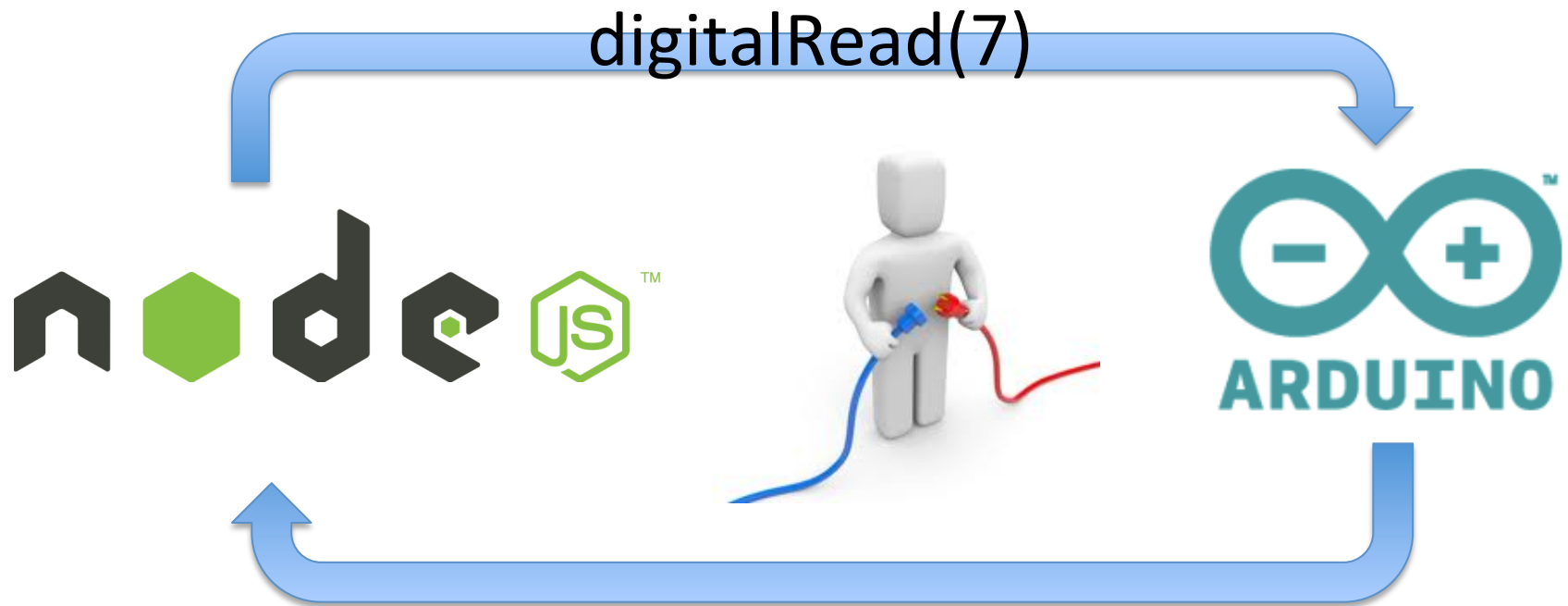
node-arduino

- Arduino Simple API Wrapper
 - Using node-serialport
 - Lacks of API support
 - **Can't use digital/analog Read! WTF!!!**





node-arduino 개선하기



```
Serial.println( digitalRead( Serial.read() ) );
```

node-arduino 개선하기



<http://www.twitvid.com/HAGDJ>

node-arduino 개선하기

- node-arduino쪽 read 함수를 비동기화.
 - Ex. `digitalRead( 7, function(data) {} );`
- Read한 값에 Pin 값 실어 보내기
 - long이 4byte인걸 감안해 pin값을 상위 2byte, 읽은 값을 하위 2byte에 실어 node로 전송한다.
- <http://github.com/kyungw00k/node-arduino>

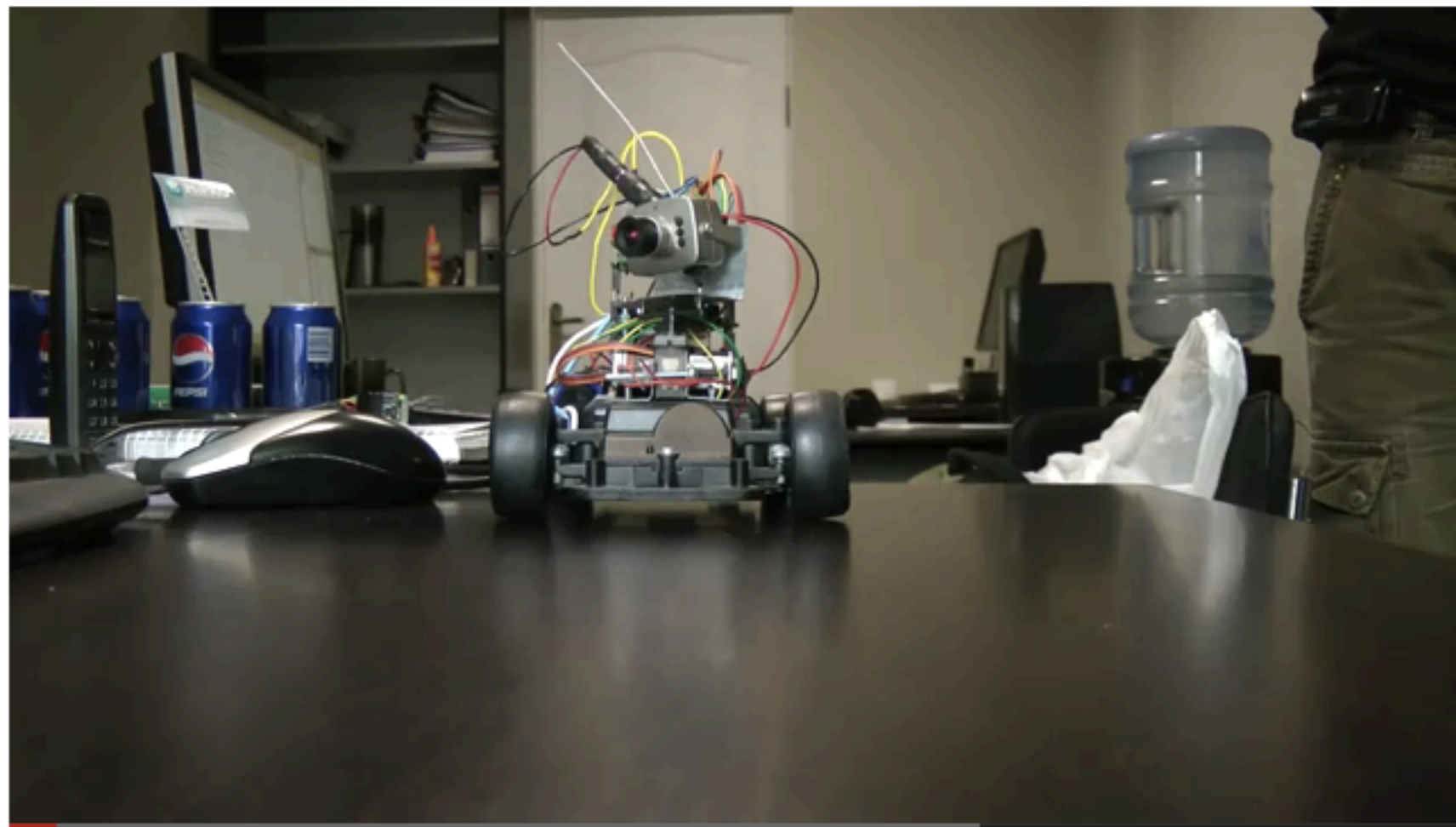
Arduino-based RC Project

Arduino-based RC car

zuzazee

동영상 19개

구독하기



좋아요



+ 추가 대상



공유



1,071

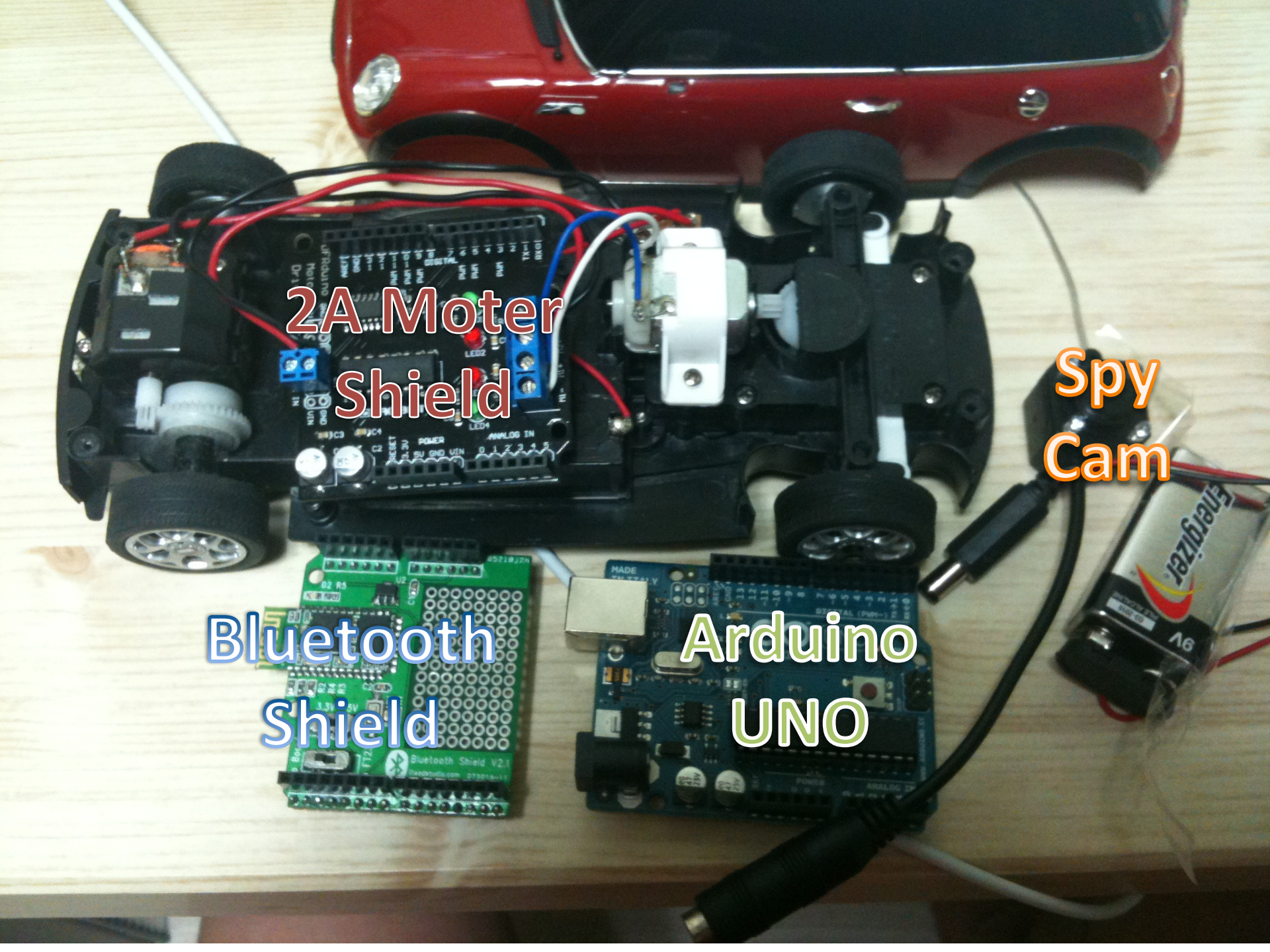


“아놔! 나도!”







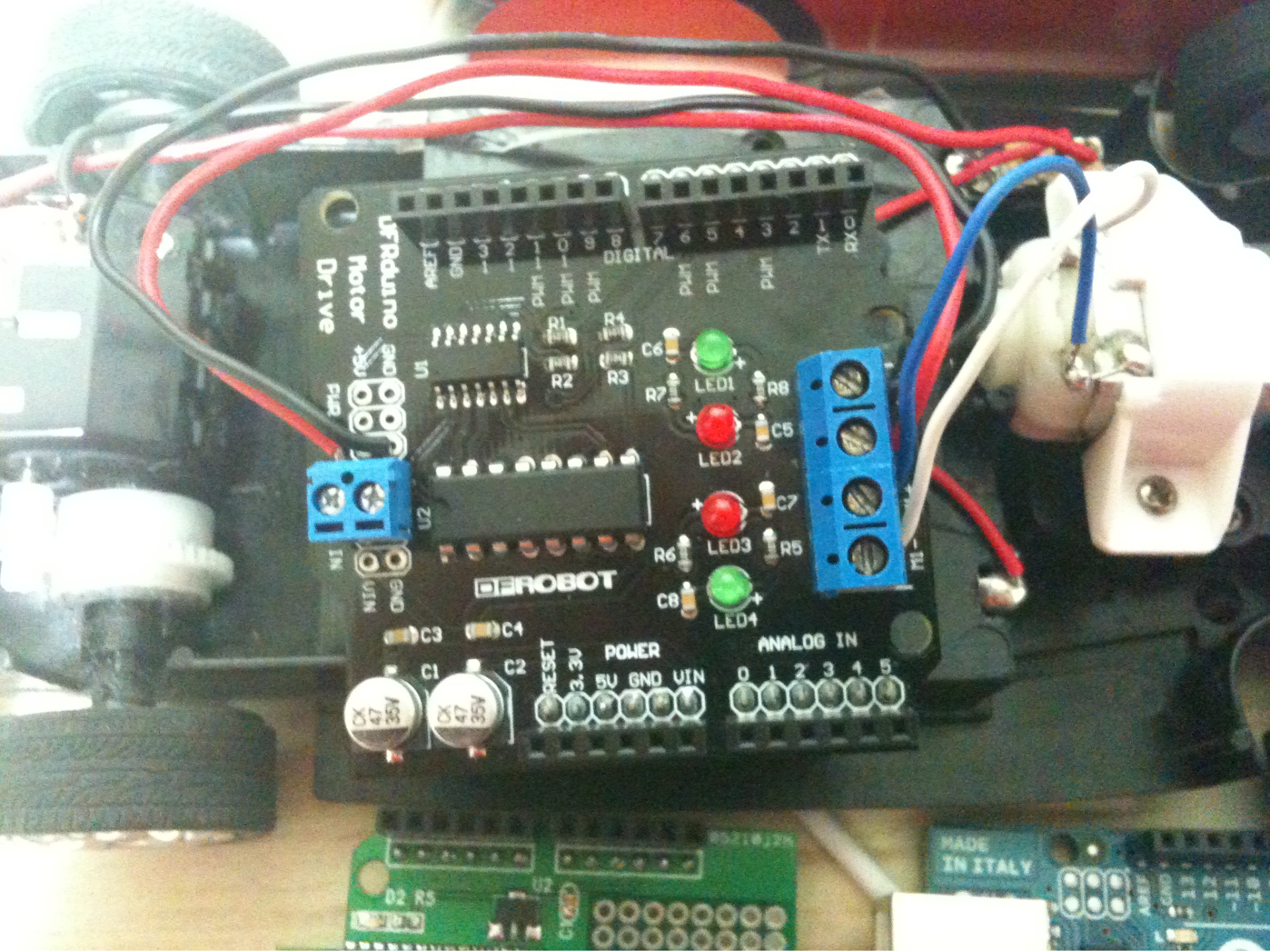


2A Motor
Shield

Spy
Cam

Bluetooth
Shield

Arduino
UNO



uFduino
Drive
Motor

ROBOT

RESET 3.3V
POWER 5V GND VIN

ANALOG IN
0 1 2 3 4 5

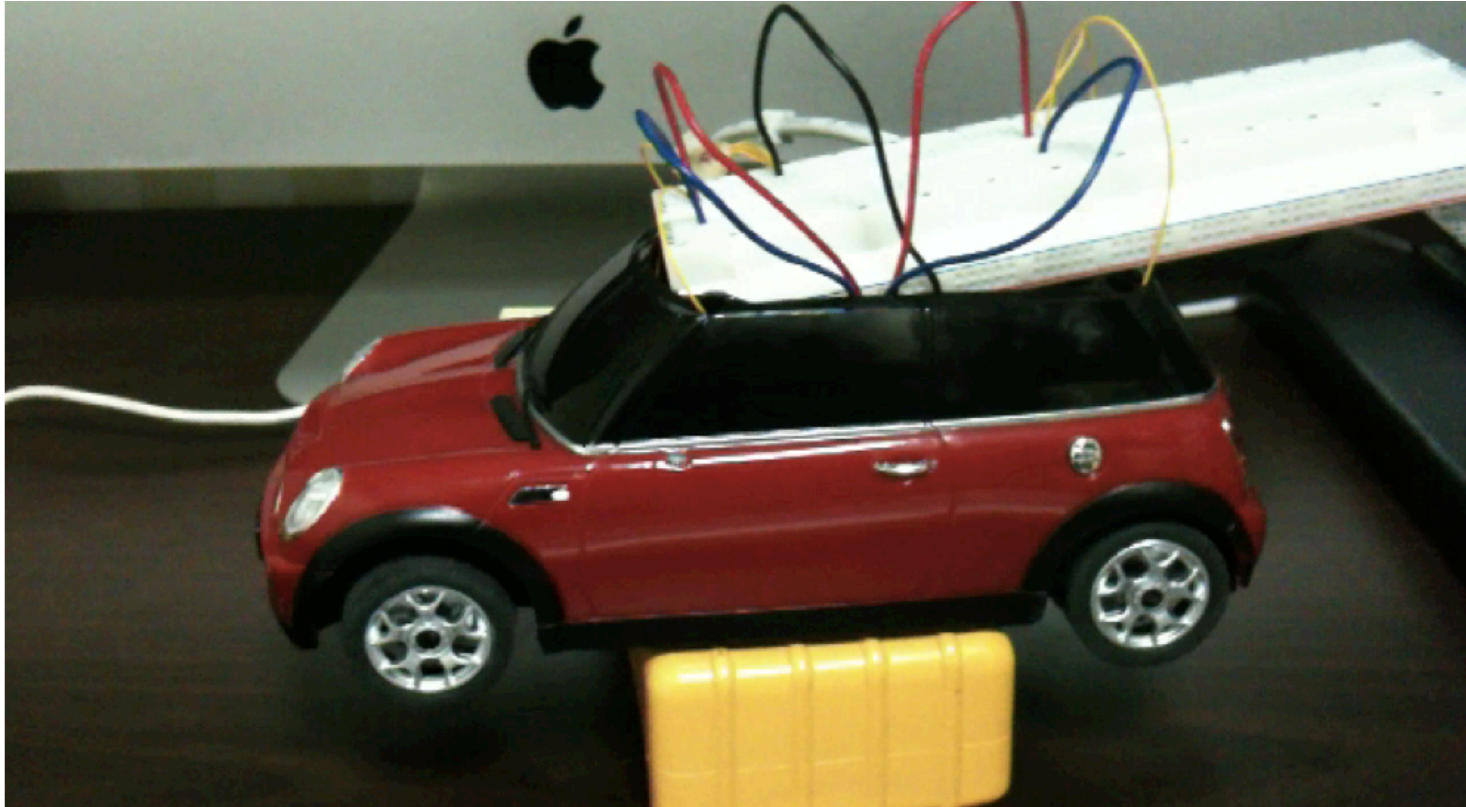
U1
U2

LED1
LED2

LED3
LED4

MADE
IN ITALY

Demo



<http://www.twitvid.com/KJBWT>

Questions?



"Excuse me, but is this The
Society for Asking Stupid
Questions?"

köszönöm !תודה dēkuji

mahalo 고맙습니다

thank you

merci 谢谢 danke

Ευχαριστώ شکرا

どうもありがとう gracias