

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

TX → 1

RX ← 0

DIGITAL (PWM~)

-∞+™
UNO
ARDUINO

SPK16.000Y

RESET-EN

RESET

ON

ICSP

WWW.ARDUINO.CC

ATMEGA328P-PU
ATMEL 1016

RESET

3.3V

5V

GND

POWER

GND

Vin

A0

A1

A2

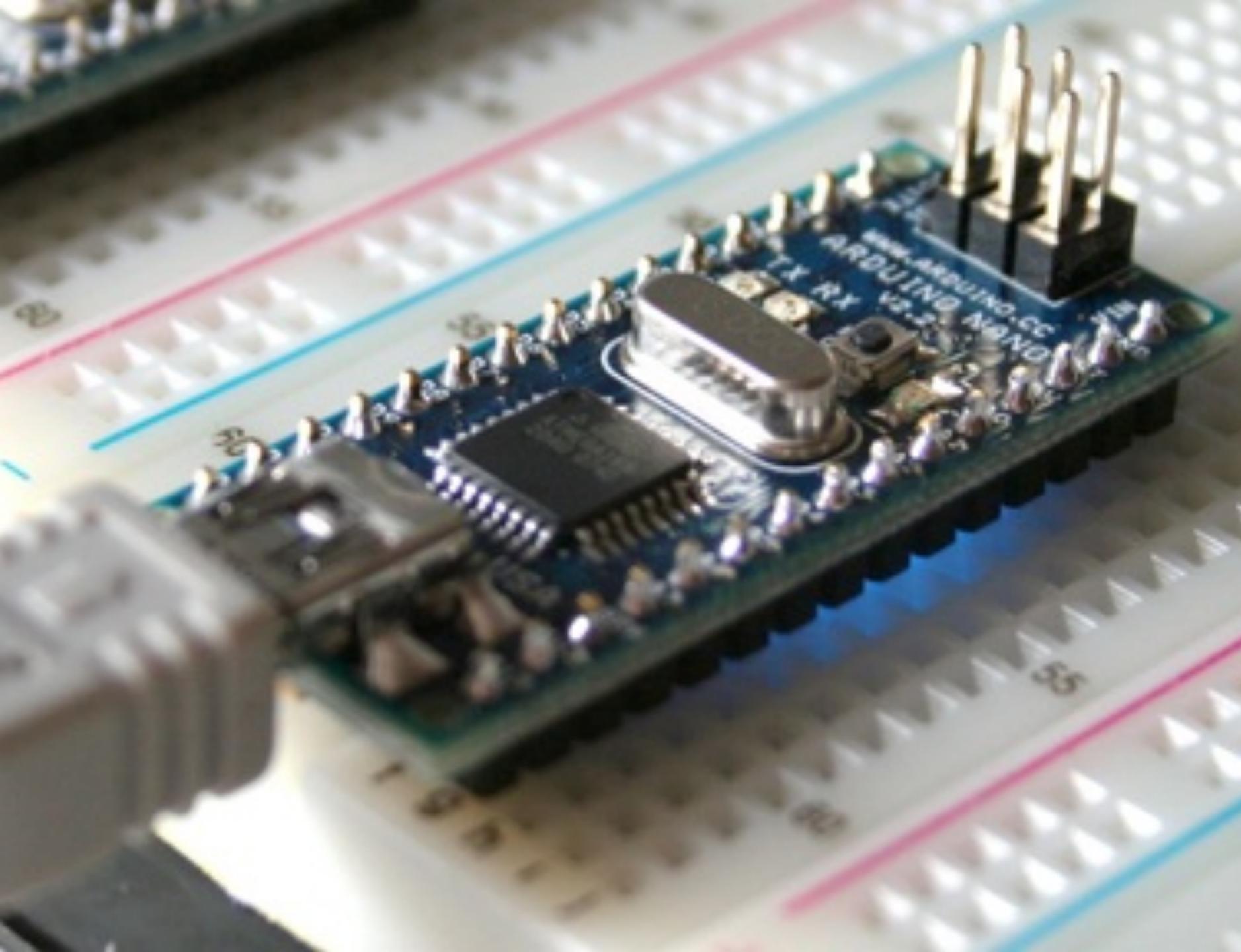
A3

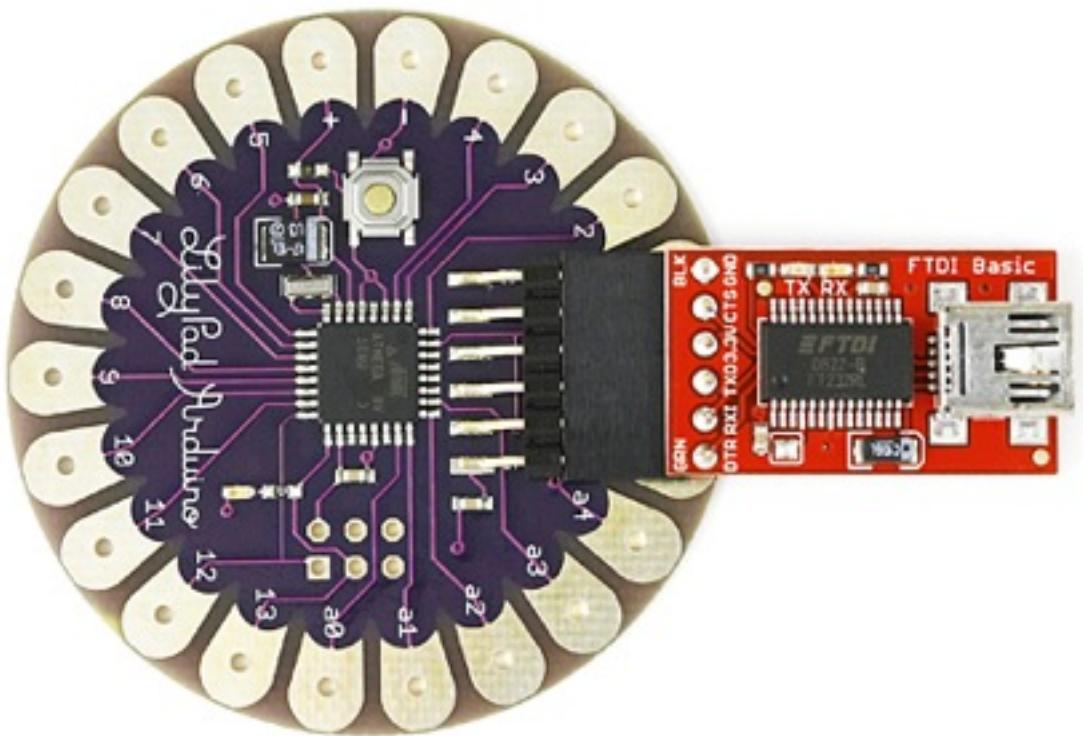
A4

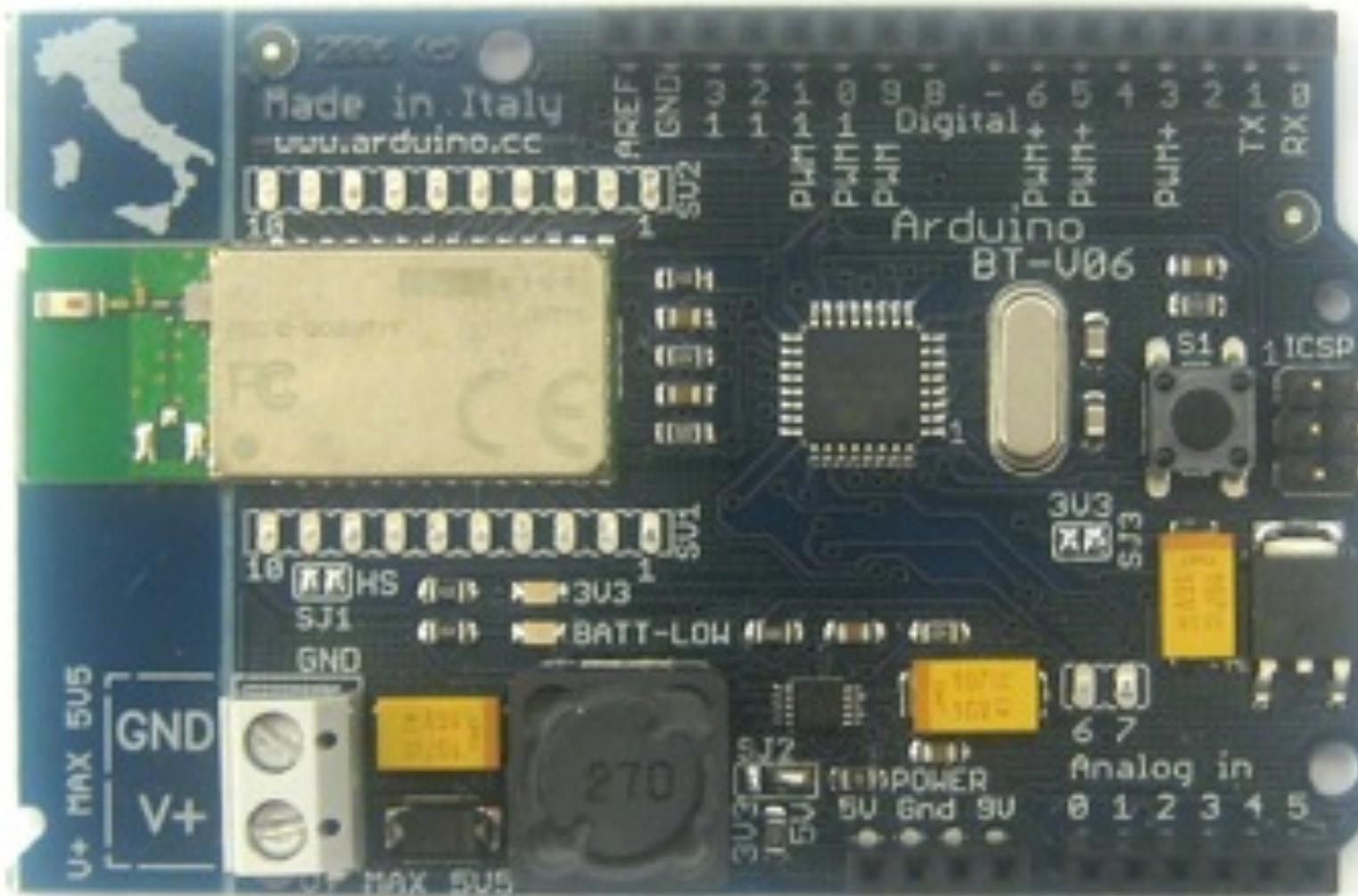
A5

00 47 25V

00 47 25V







Blink | Arduino 0022

Play Stop Refresh Upload Download Open Save

Blink

```
/*
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
}
```

1

자주 쓰는 API

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

Pros/Cons

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

Let's hook up with     

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

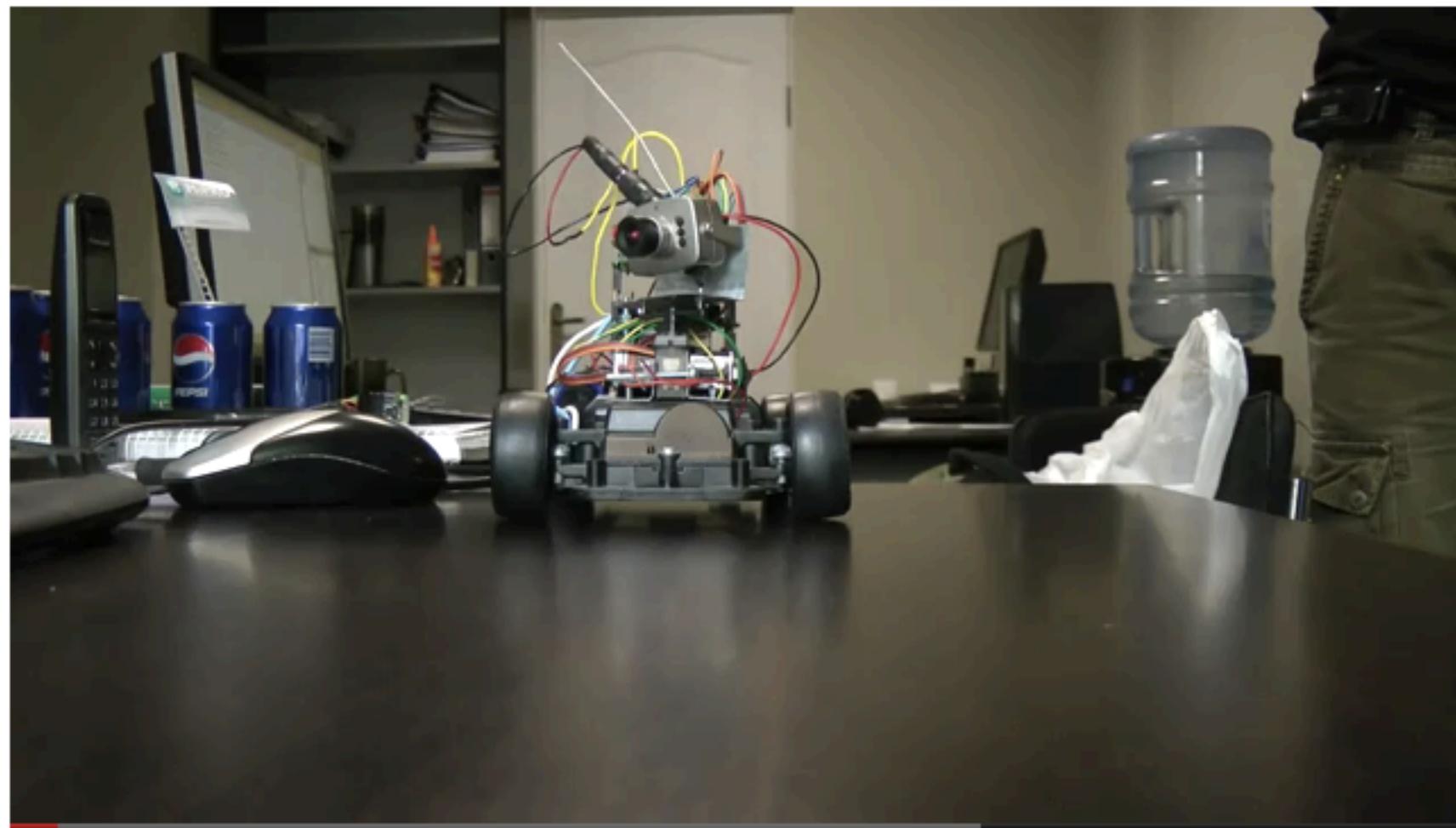
- node-arduino쪽 read 함수를 비동기화.
 - Ex. digitalRead(7, function(data) {});
- Read한 값에 Pin 값 실어 보내기
 - long이 4byte인걸 감안해 pin값을 상위 2byte, 읽은 값을 하위 2byte에 실어 node로 전송한다.
- <http://github.com/kyungw00k/node-arduino>

Arduino-based RC Project

Arduino-based RC car

zuzazee

동영상 19개



좋아요

편

추가 대상

공유

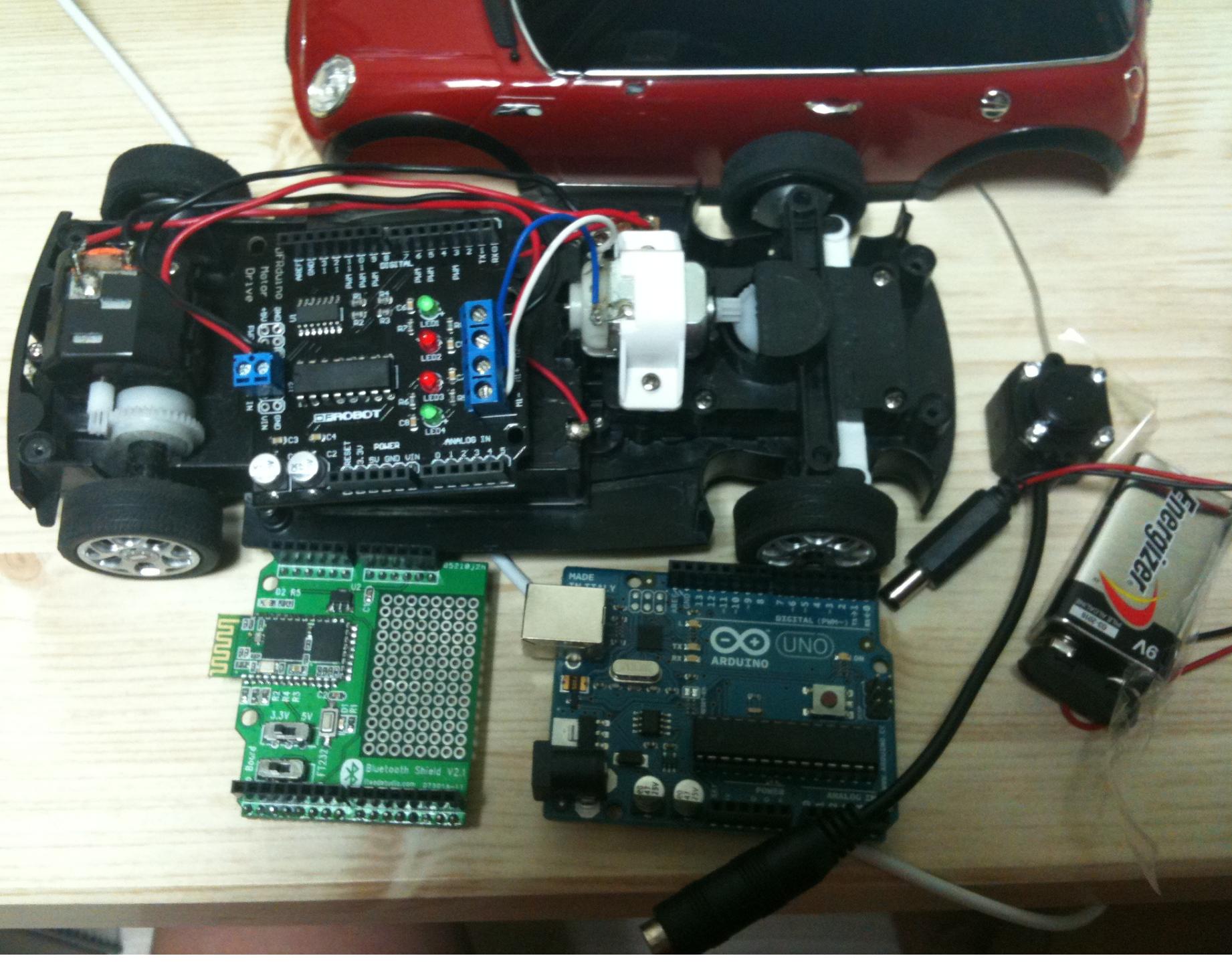
1,071



“아놔! 나도!”







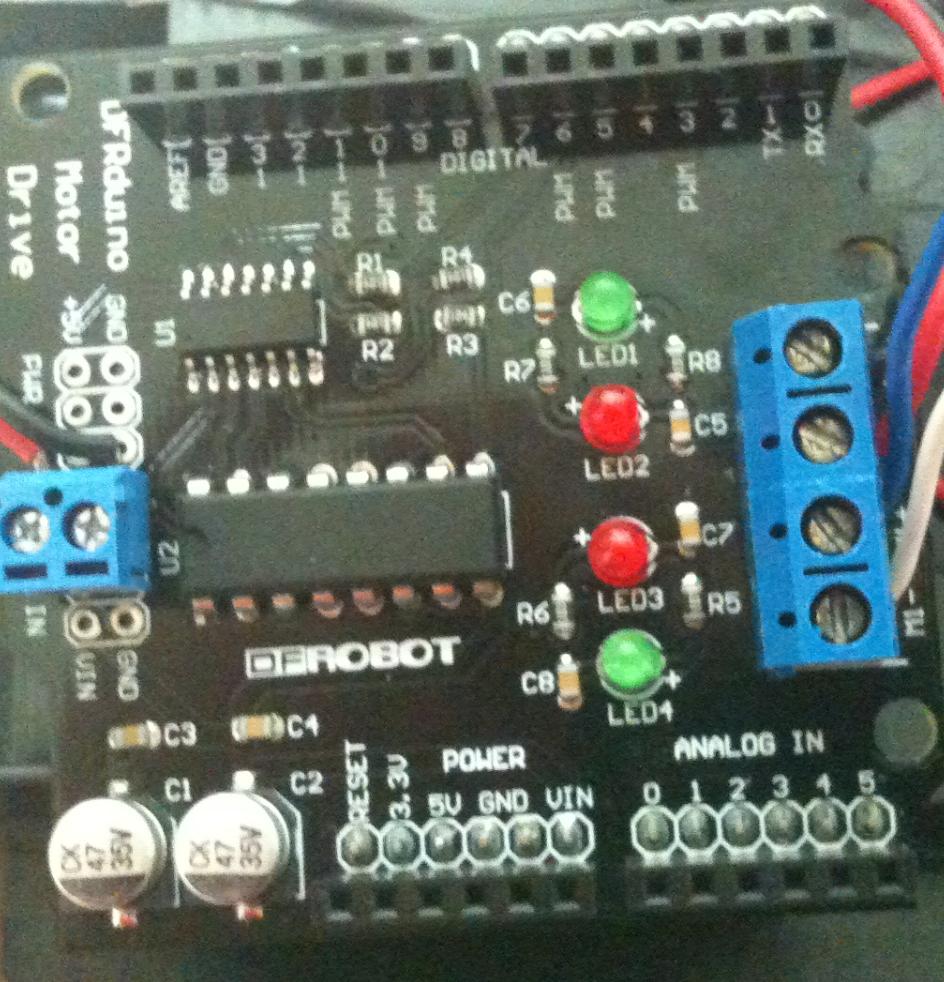


2A Motor
Shield

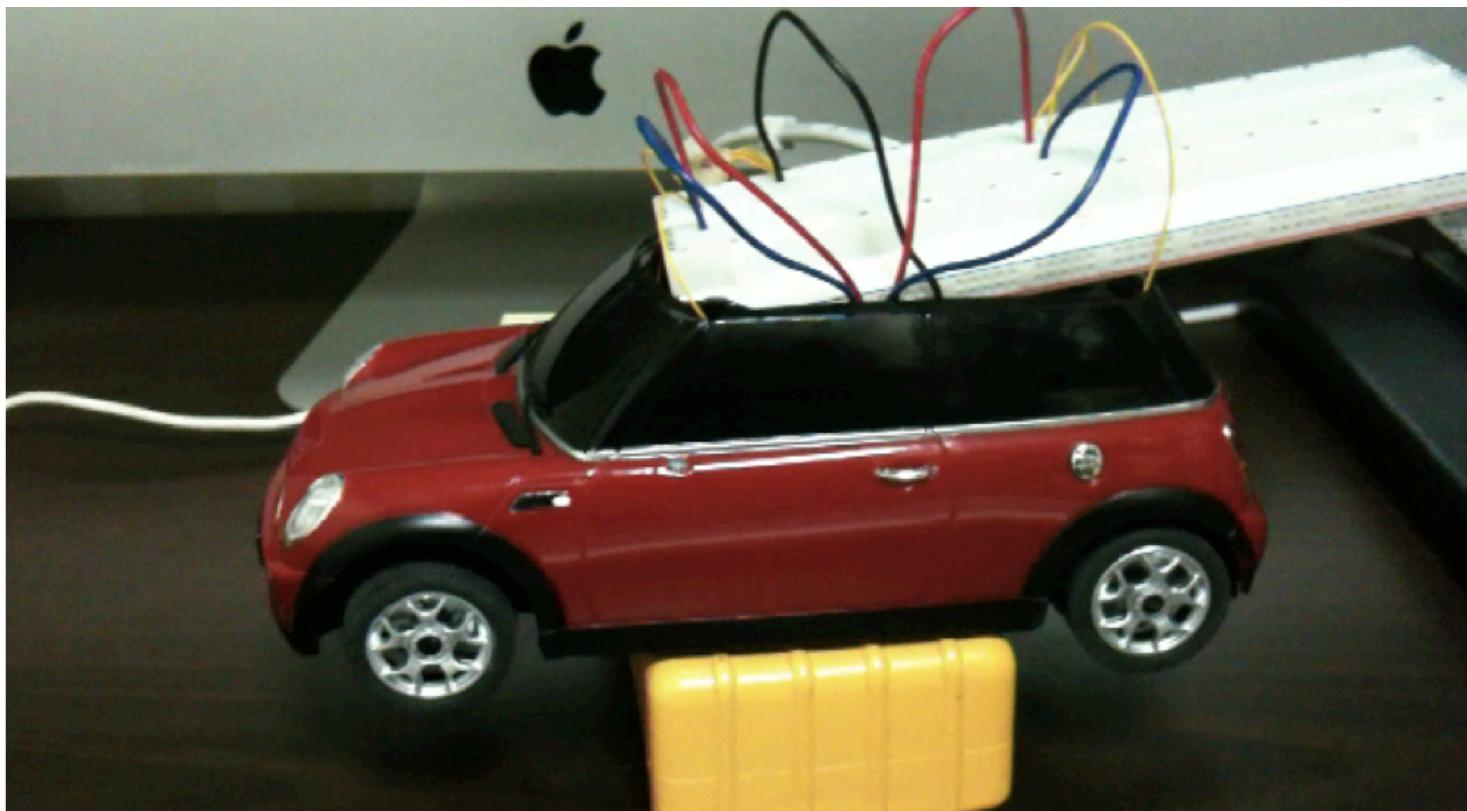
Bluetooth
Shield

Arduino
UNO

Spy
Cam



Demo



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

Questions?



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

köszönöm !תודה! dekuji

mahalo 고맙습니다

thank you

merci 谢谢 danke

Ευχαριστώ شکرا

どうもありがとう gracias