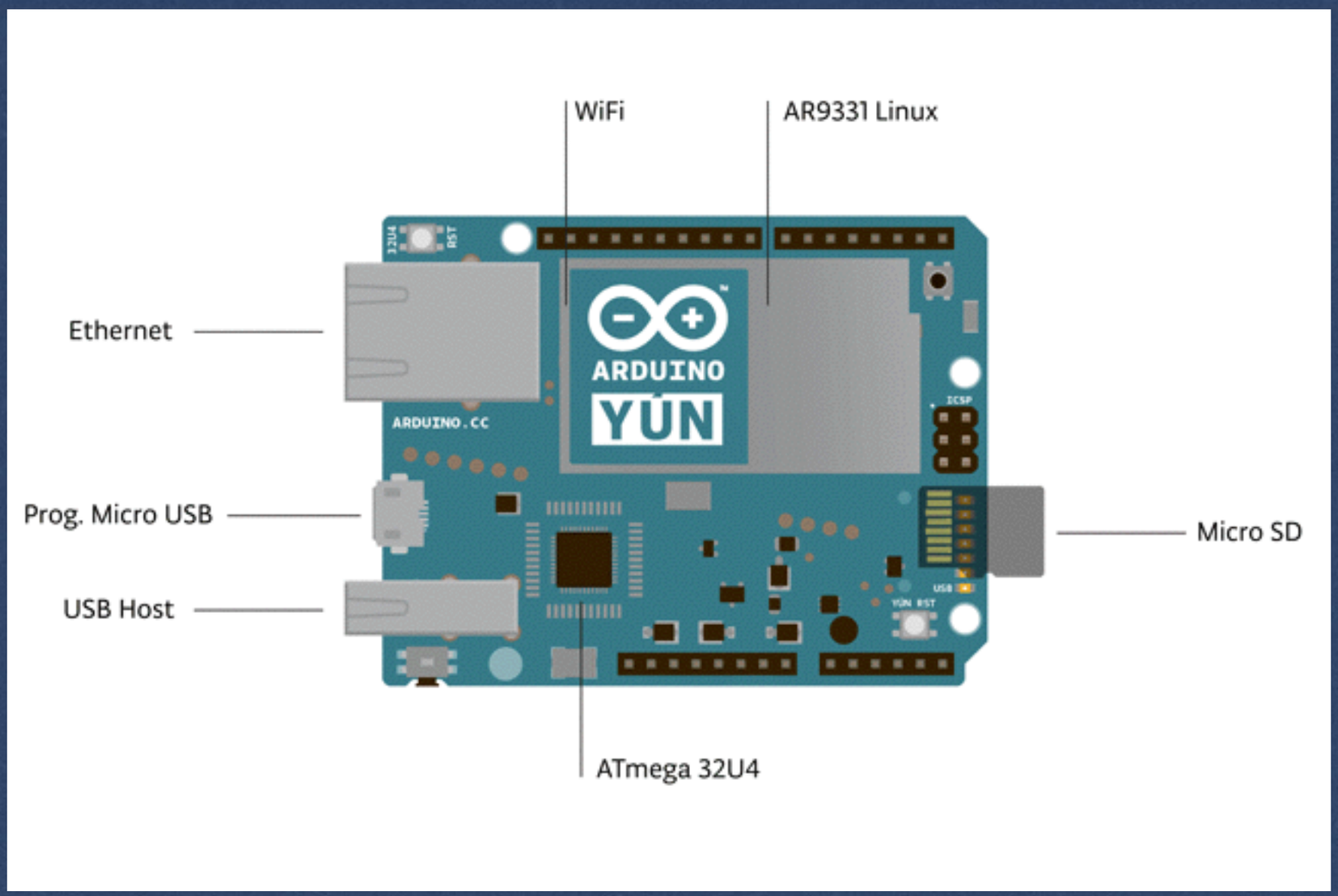


arduino.org

* Christmas Contest for Arduino Uno WiFi - Jan 31st

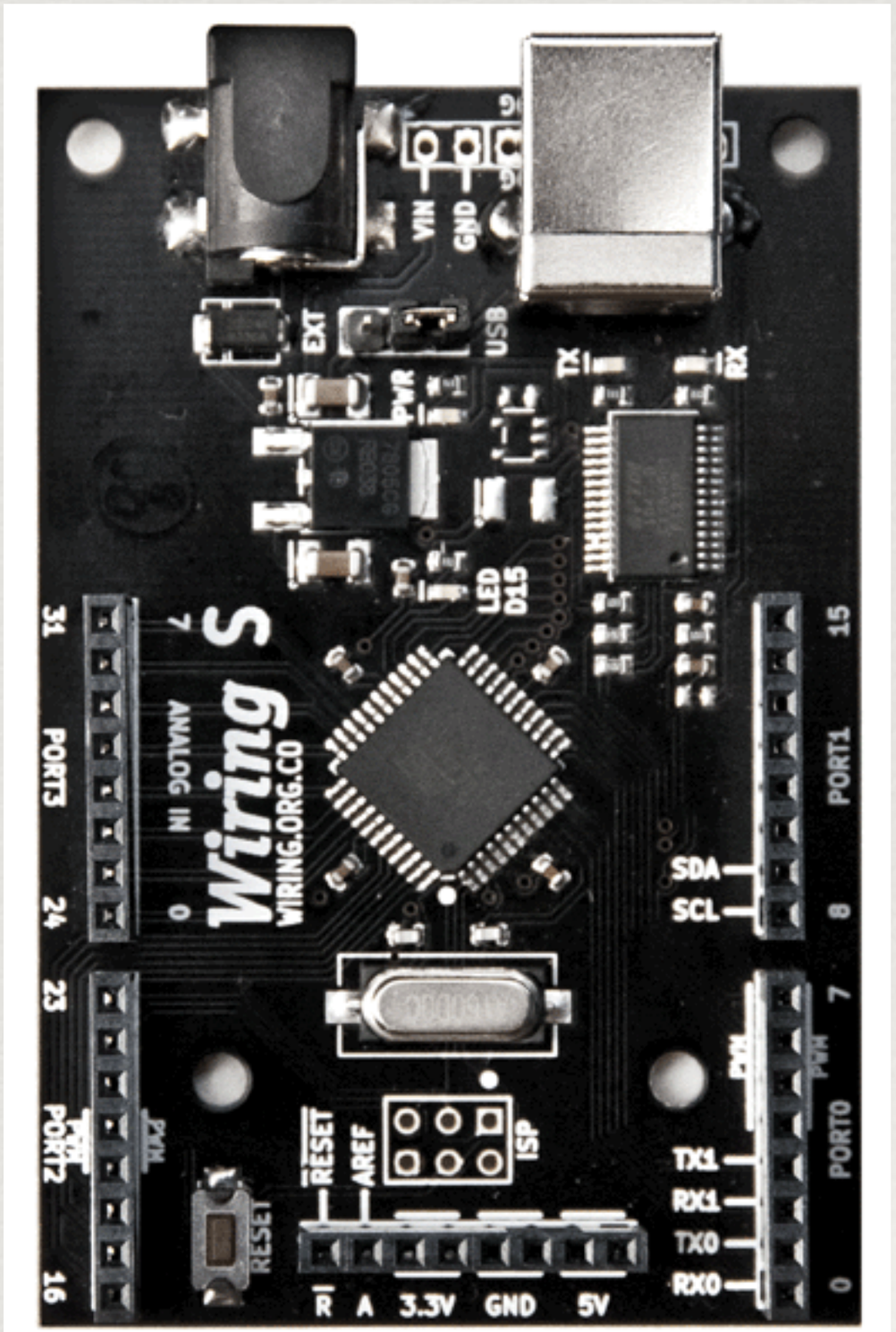
Arduino

Harduino Arj-dueeno Aderino
Ard-wino Arjedaweeno Arj-duweno
Adriano-Arguing-Arduous

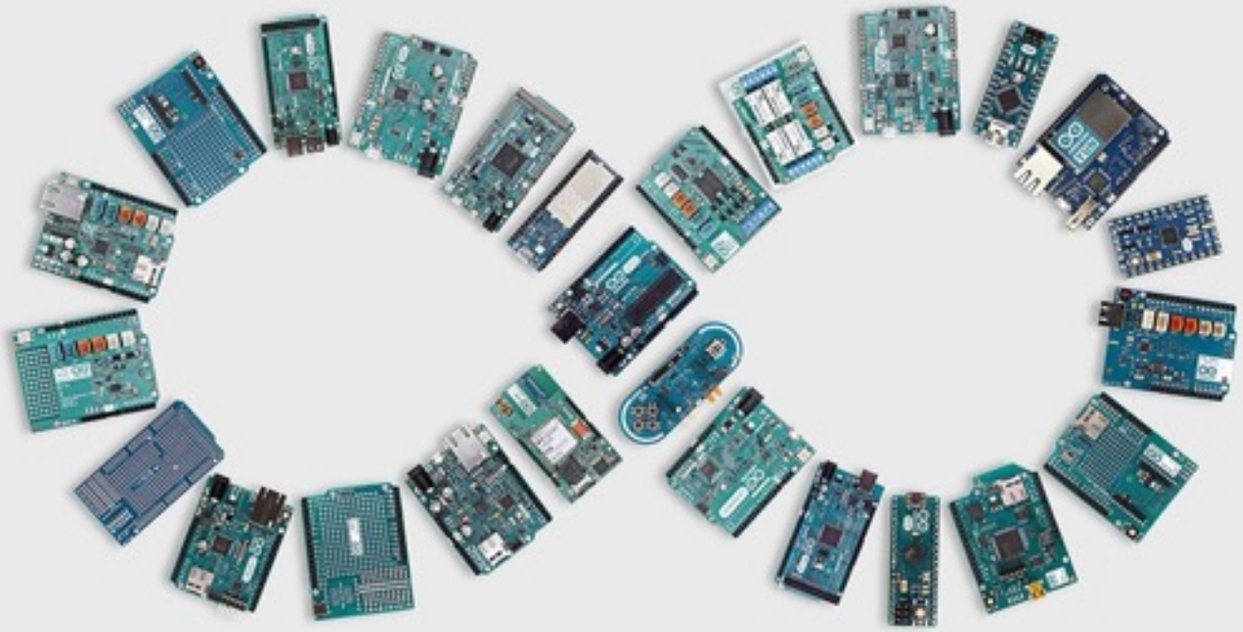
- Arduino is an open-source electronics prototyping platform based on flexible, easy-to-use hardware and software. It's intended for artists, designers, hobbyists, and anyone interested in creating interactive objects or environments.

wiring.org.co

This is the first open source hardware developed by Hernando Barragan which became the first arduino.

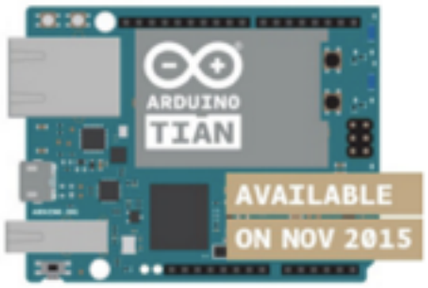


ARDUINO

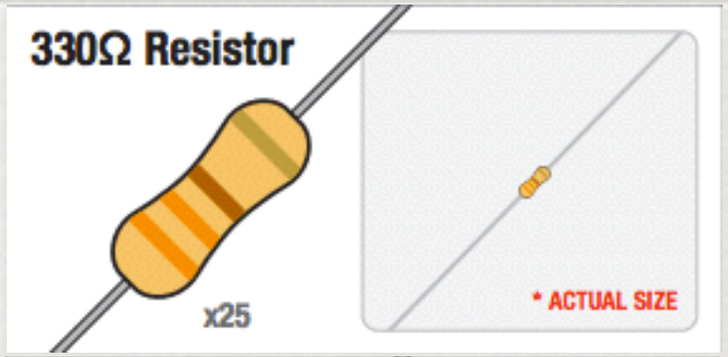


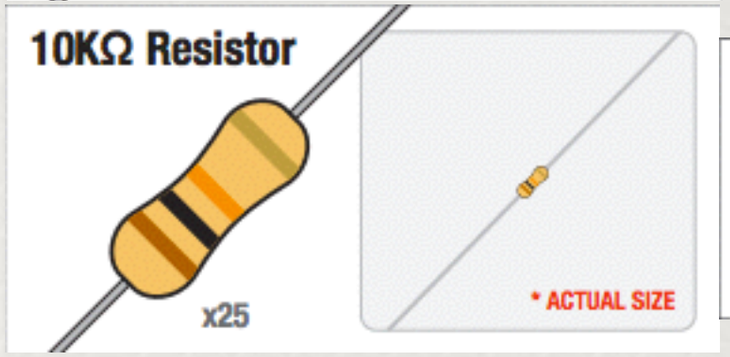
NEW

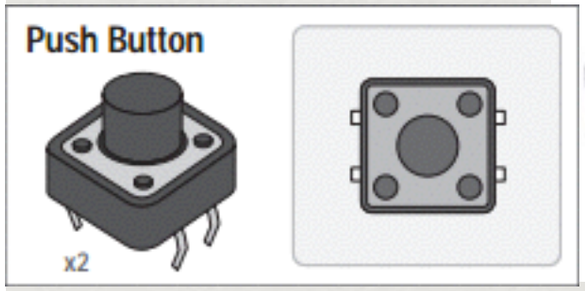
ARDUINO PRODUCTS

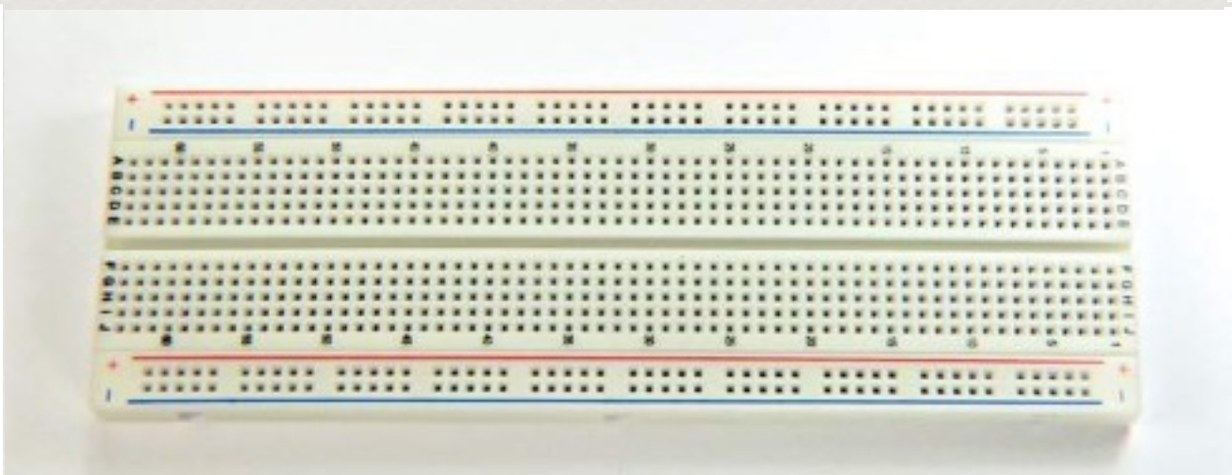


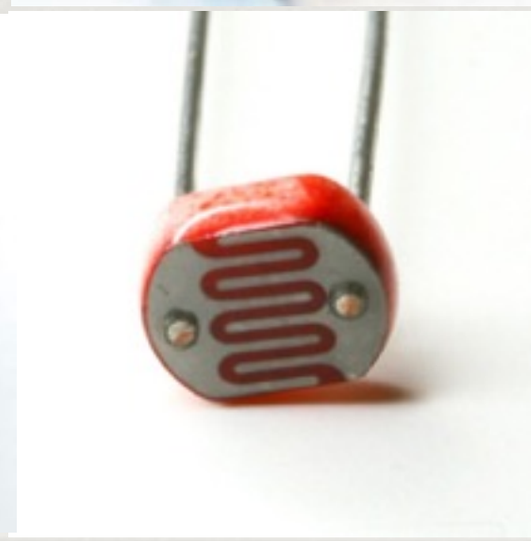
All kits include…



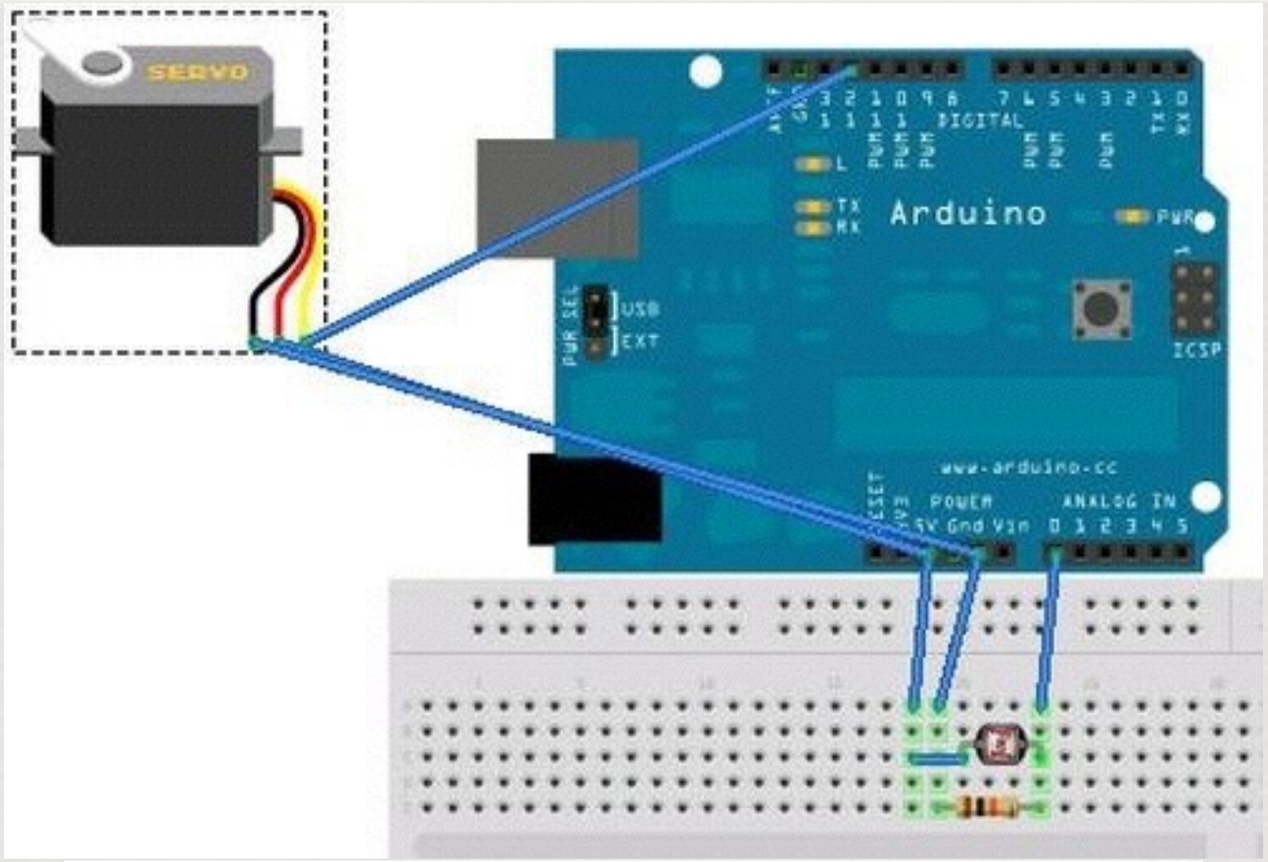


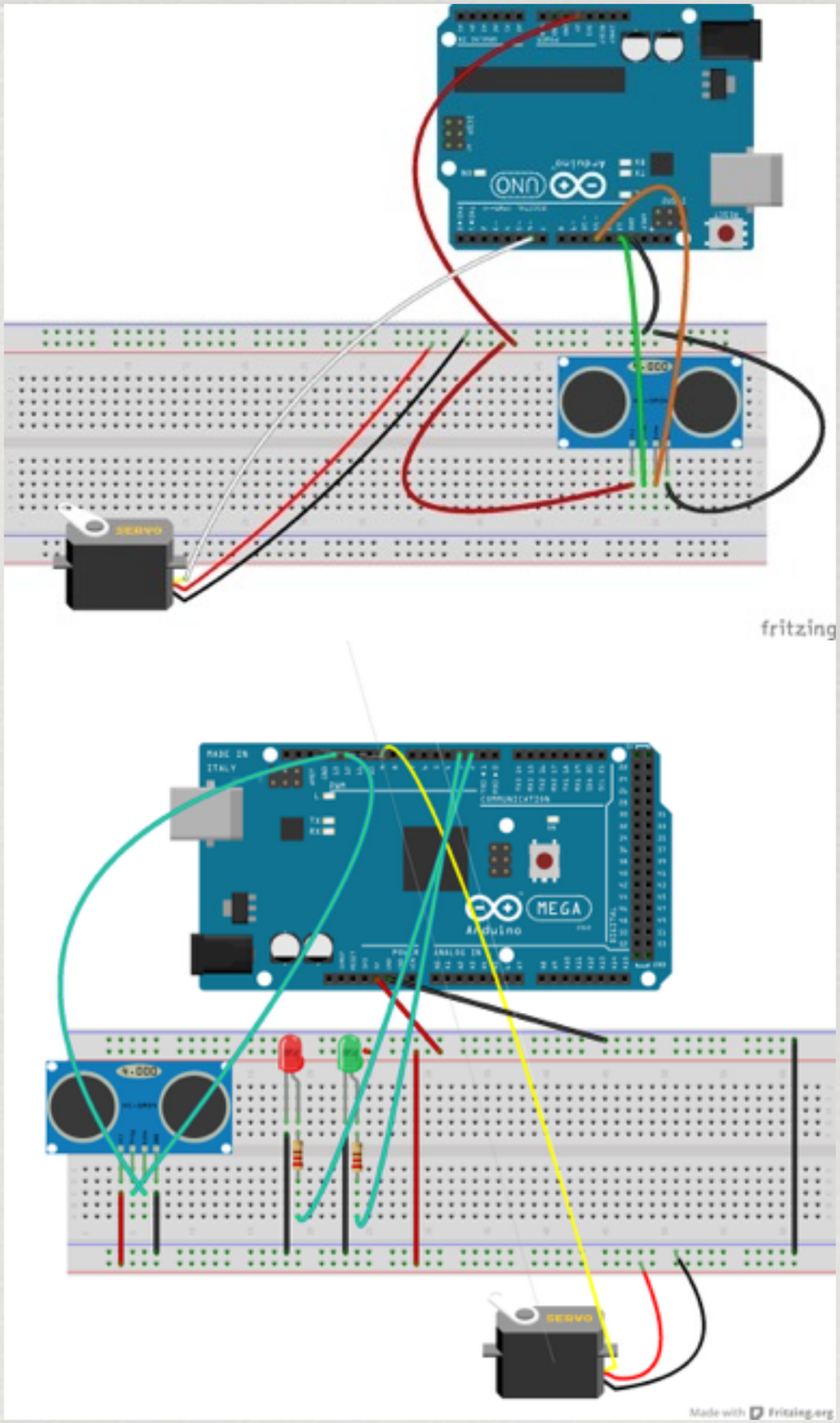


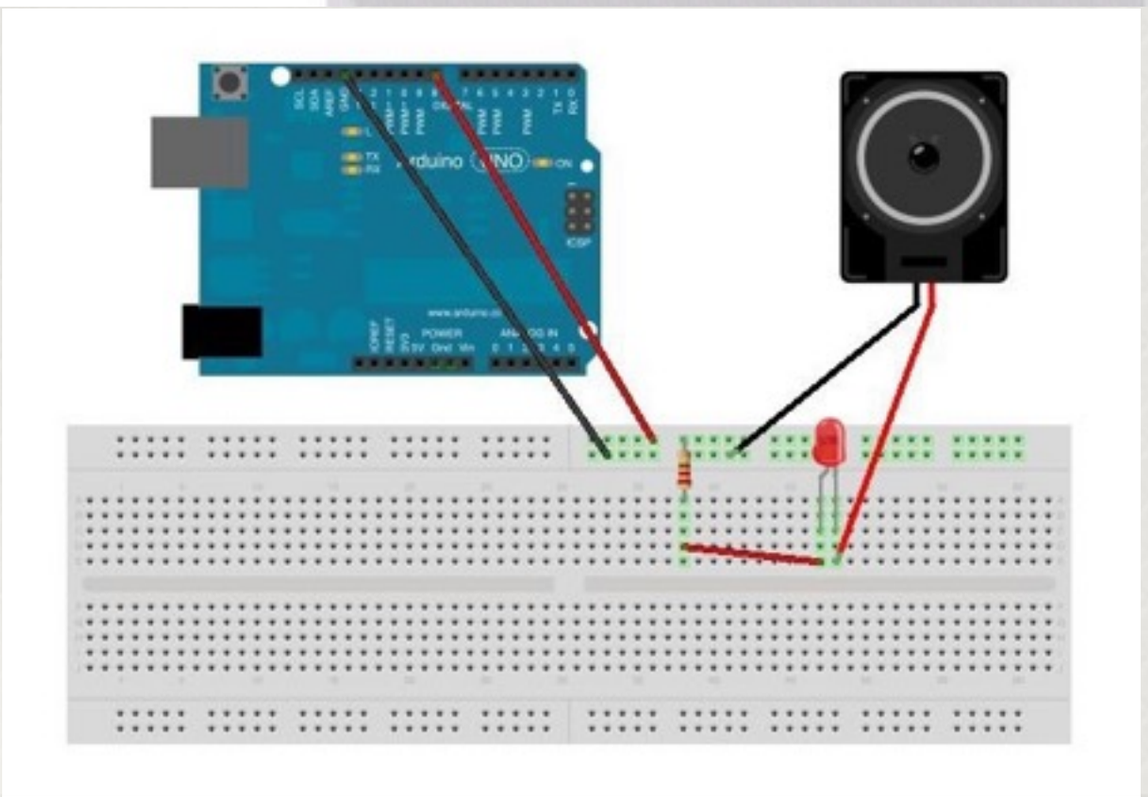




We also have...


SERVO
Arduino
TX
RX
PWR
USB
EXT
PWR SEL
ICSP
www.arduino.cc
POWER
ANALOG IN
5V Gnd Vin
0 1 2 3 4 5


SERVO
fritzing



MEGA
Arduino
SERVO
Made with Fritzing.org

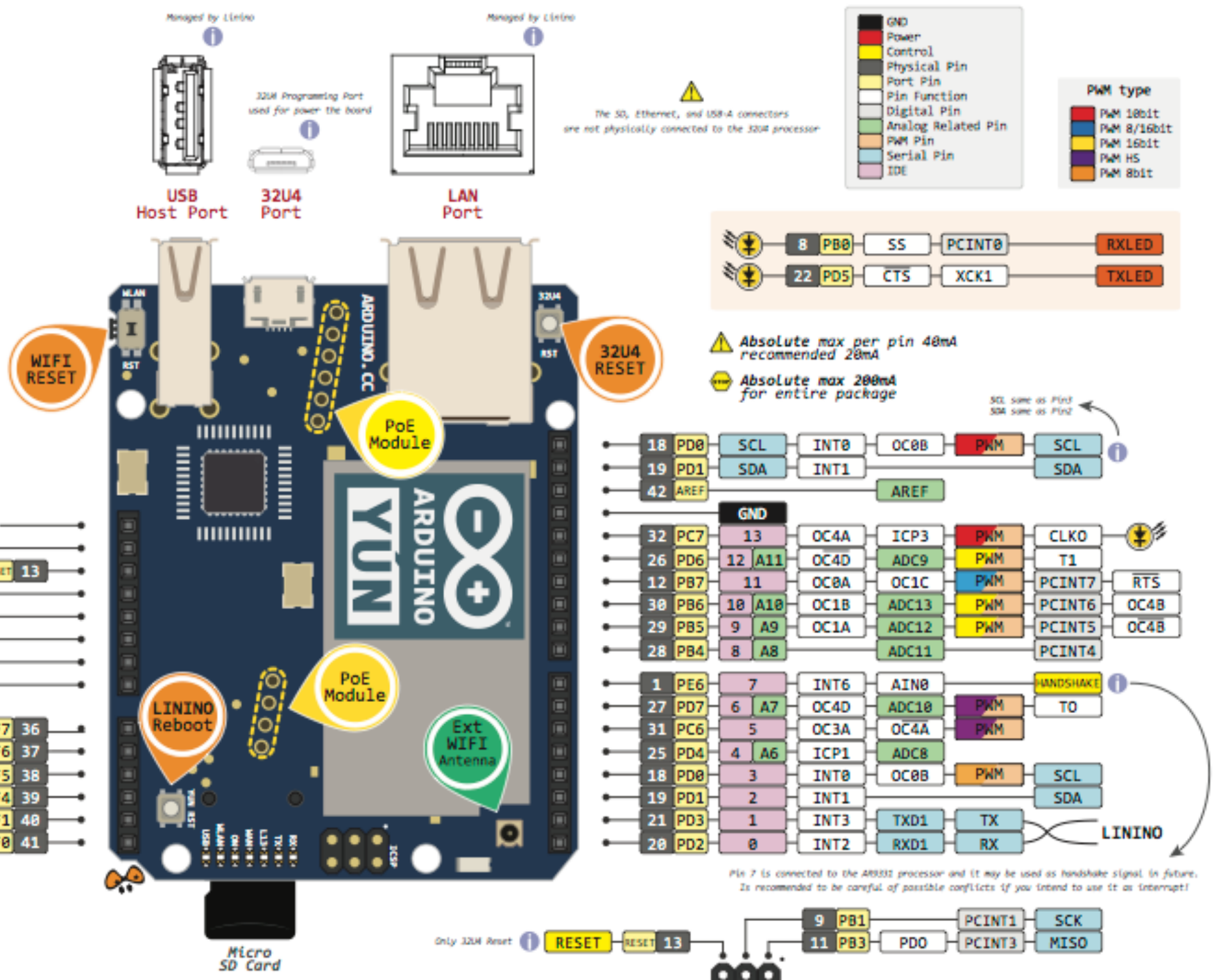
Downloads!

- arduino.org latest IDE is 1.7.8
- fritzing.org latest version 0.9.2b
- sparkfun.com Search for “Inventor’s Kit”

Documents:

- SIK Guide
- Online Experiment Guide
- SIK Teaching Curriculum
- SIK Code Library
- Dimensional Drawing (Carrying Case)
- SIK V3.2 Wish List

THE UNOFFICIAL ARDUINO YÚN PINOUT DIAGRAM



GND
Power
Control
Physical Pin
Port Pin
Pin Function
Digital Pin
Analog Related Pin
PWM Pin
Serial Pin
IDE

PWM type
PWM 10bit
PWM 8/16bit
PWM 16bit
PWM HS
PWM 8bit

8	PB0	SS	PCINT0	RXLED
22	PD5	CTS	XCK1	TXLED

⚠ *Absolute max per pin 40mA recommended 20mA*

STOP *Absolute max 200mA for entire package*

This provides a logic reference voltage for shields that use it. It is connected to the 5V Aux.

Not Connected

Only 32U4 Reset

IOREF			
RESET	RESET	13	
3V3			
5V			
GND			
GND			
VIN *			

The input voltage to the Yun board, unlike other Arduino boards, if you are going to provide power to the board through this pin
YOU MUST PROVIDE A REGULATED 5V!

ADC7	TDI	14	A0	PF7 36
ADC6	TDO	15	A1	PF6 37
ADC5	TMS	16	A2	PF5 38
ADC4	TCK	17	A3	PF4 39
ADC1		18	A4	PF1 40
ADC0		19	A5	PF0 41

SCL same as Pin1
SDA same as Pin2

18	PD0	SCL	INT0	OC0B	PWM	SCL	
19	PD1	SDA	INT1			SDA	
42	AREF			AREF			
	GND						
32	PC7	13	OC4A	ICP3	PWM	CLKO	
26	PD6	12 A11	OC4D	ADC9	PWM	T1	
12	PB7	11	OC0A	OC1C	PWM	PCINT7	RTS
30	PB6	10 A10	OC1B	ADC13	PWM	PCINT6	OC4B
29	PB5	9 A9	OC1A	ADC12	PWM	PCINT5	OC4B
28	PB4	8 A8		ADC11		PCINT4	
1	PE6	7	INT6	AIN0		HANDSHAKE	
27	PD7	6 A7	OC4D	ADC10	PWM	T0	
31	PC6	5	OC3A	OC4A	PWM		
25	PD4	4 A6	ICP1	ADC8			
18	PD0	3	INT0	OC0B	PWM	SCL	
19	PD1	2	INT1			SDA	
21	PD3	1	INT3	TXD1	TX		
20	PD2	0	INT2	RXD1	RX		LININO

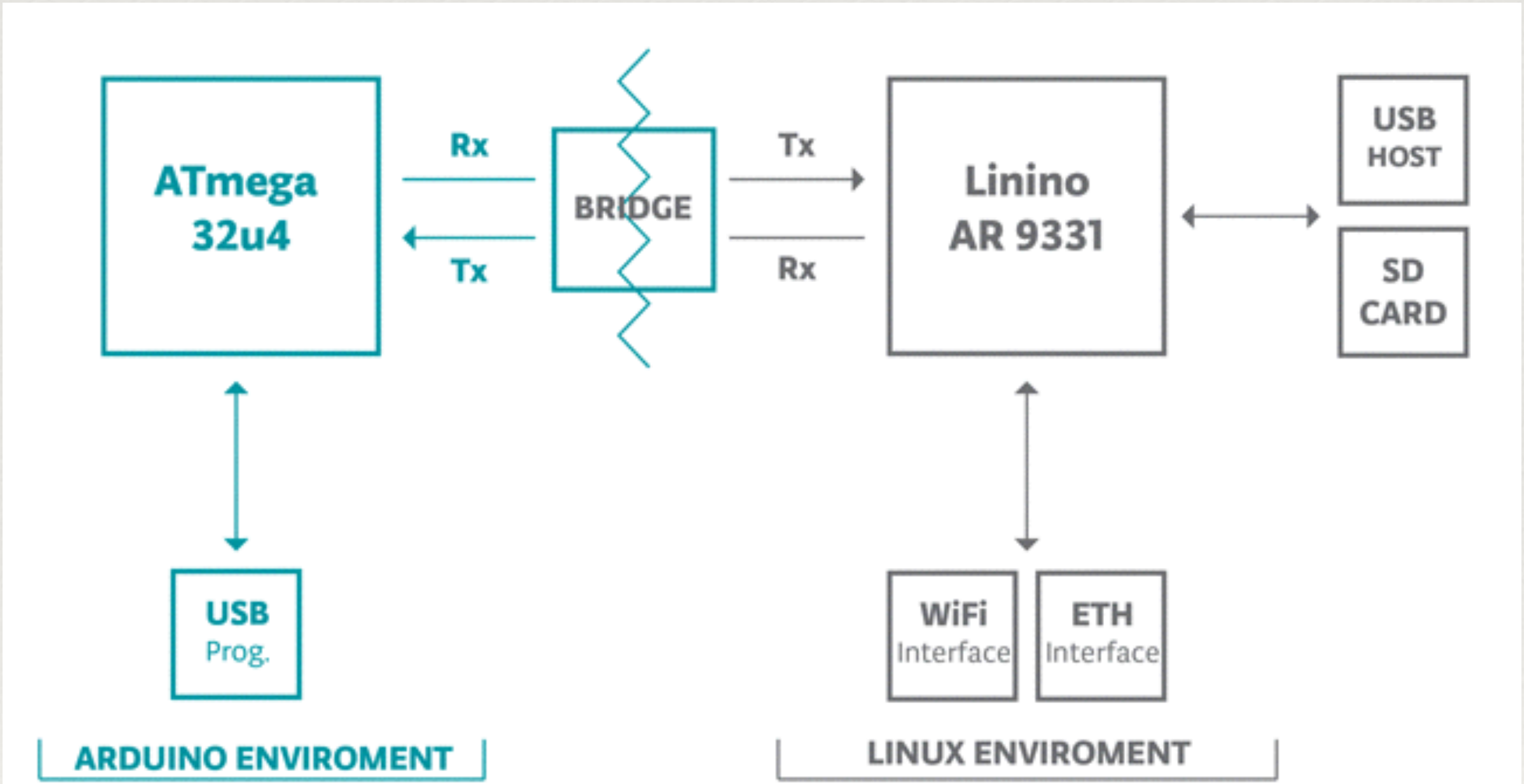
Pin 7 is connected to the AR9331 processor and it may be used as handshake signal in future. Is recommended to be careful of possible conflicts if you intend to use it as interrupt!

Only 32U4 Reset

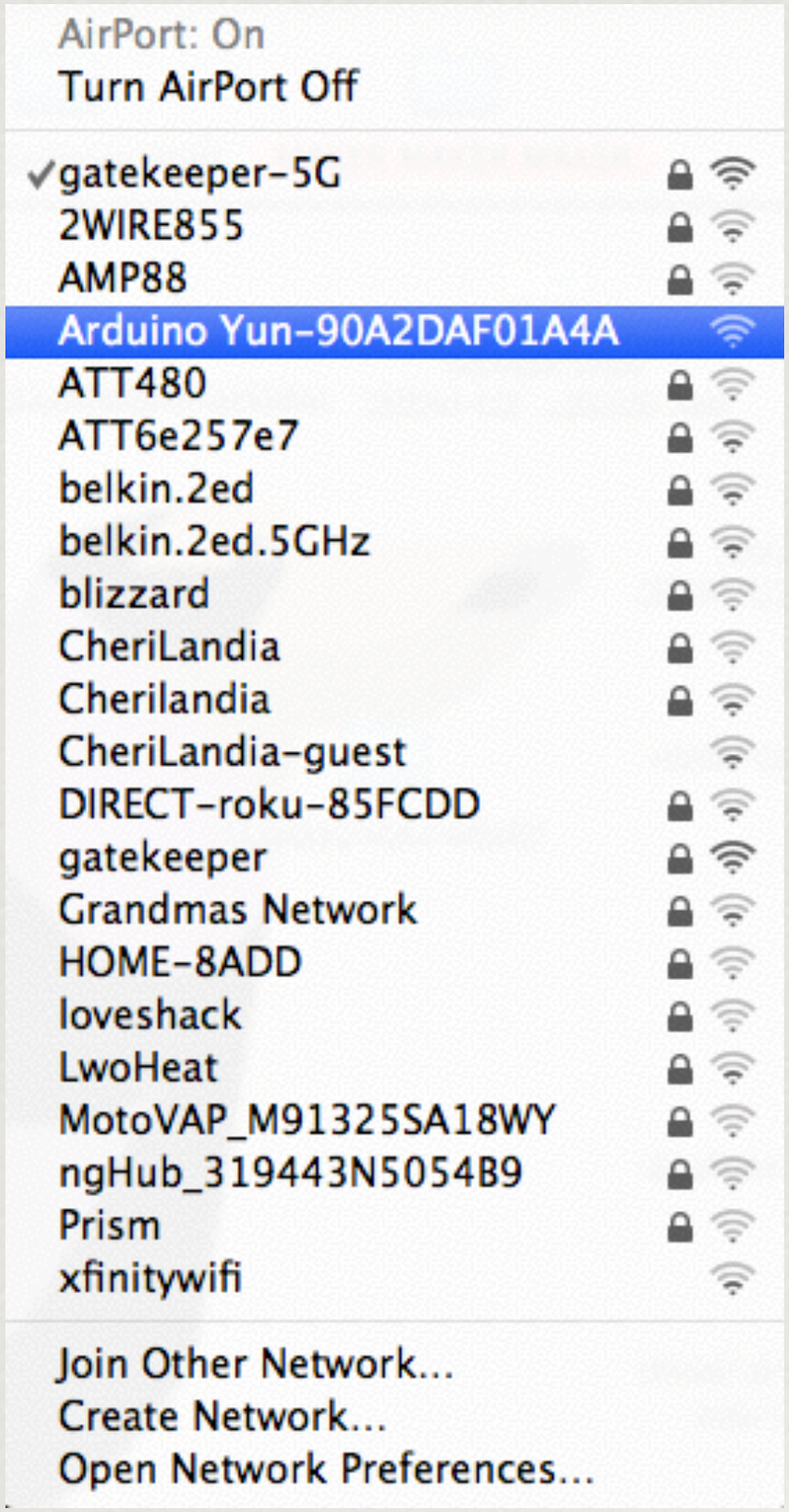
RESET	RESET	13	9	PB1	PCINT1	SCK
			11	PB3	PDO PCINT3	MISO
GND					5V	
			10	PB2	PDI PCINT2	MOSI

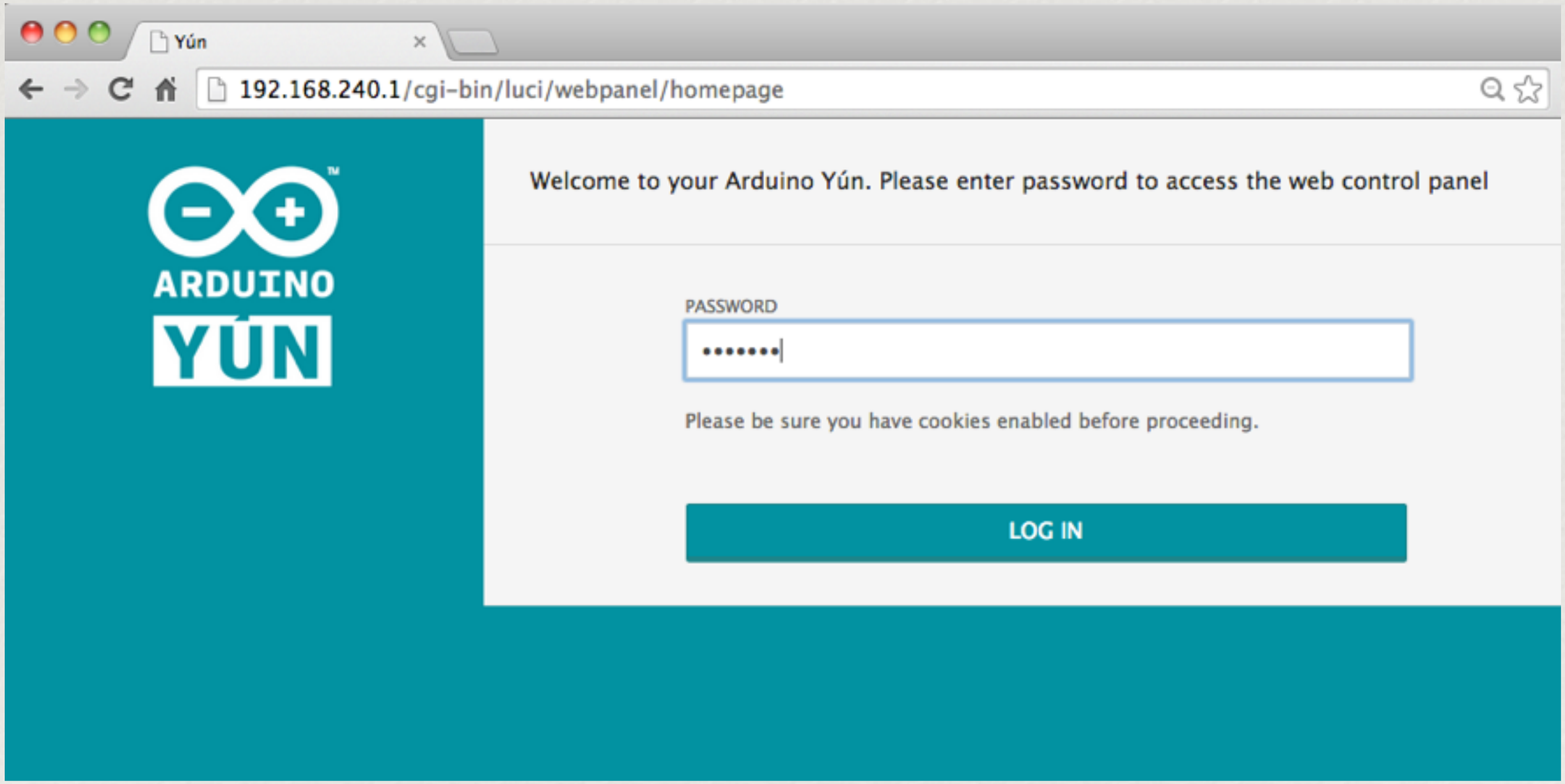
STOP There is no on-board voltage regulator for higher voltages which will damage the board!

16 OCT 2013
ver 1 rev 0


ATmega
32u4
Rx
Tx
BRIDGE
Tx
Rx
Linino
AR 9331
USB
HOST
SD
CARD
USB
Prog.
WiFi
Interface
ETH
Interface
ARDUINO ENVIROMENT
LINUX ENVIROMENT


ARDUINO
YUN


AirPort: On
Turn AirPort Off
✓gatekeeper-5G
2WIRE855
AMP88
Arduino Yun-90A2DAF01A4A
ATT480
ATT6e257e7
belkin.2ed
belkin.2ed.5GHz
blizzard
CheriLandia
Cherilandia
CheriLandia-guest
DIRECT-roku-85FCDD
gatekeeper
Grandmas Network
HOME-8ADD
loveshack
LwoHeat
MotoVAP_M91325SA18WY
ngHub_319443N5054B9
Prism
xfinitywifi
Join Other Network...
Create Network...
Open Network Preferences...


Yún
192.168.240.1/cgi-bin/luci/webpanel/homepage
ARDUINO
YÚN
Welcome to your Arduino Yún. Please enter password to access the web control panel
PASSWORD
Please be sure you have cookies enabled before proceeding.
LOG IN

Yún

192.168.240.1/cgi-bin/luci/;stok=4db03f7f13605fe43db32abc69d1b53d/webpanel/config

ARDUINO YÚN

For more advanced network configuration features, see the advanced configuration panel (luci)

YÚN BOARD CONFIGURATION

YÚN NAME *

Yunaya

PASSWORD

•••••••

CONFIRM PASSWORD

•••••••

TIMEZONE *

America/Los Angeles

Yún

192.168.240.1/cgi-bin/luci/;stok=4db03f7f13605fe43db32abc69d1b53d/webpanel/config

WIRELESS PARAMETERS

CONFIGURE A WIRELESS NETWORK

DETECTED WIRELESS NETWORKS

gatekeeper (WPA2) Refresh

WIRELESS NAME *

gatekeeper

SECURITY WPA2

PASSWORD *

••••••••••••••••

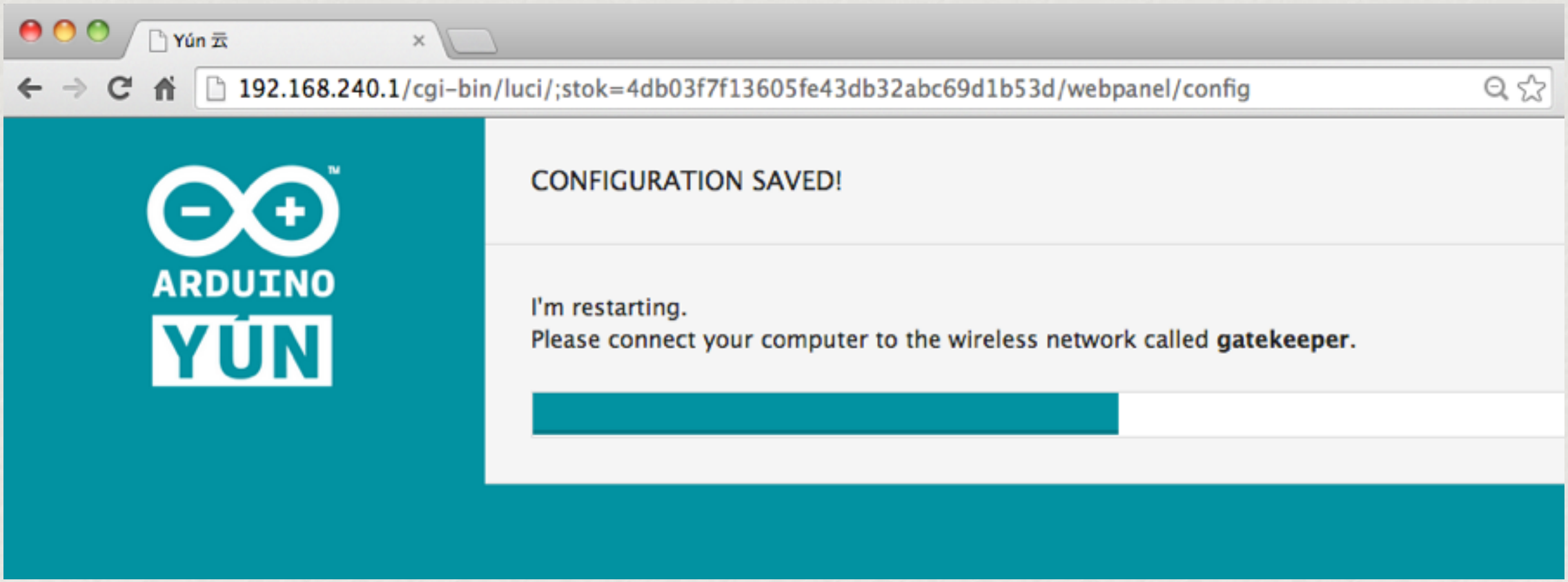
DISCARD CONFIGURE & RESTART

REST API ACCESS

REST API ACCESS

OPEN WITH PASSWORD

REST APIs allow you to access your sketch from the web, sending commands or exchanging configuration values.
If your Yún is on a public network, or controlling sensitive equipment, or both, we recommend you leave the REST API password protected.


Yún 云
192.168.240.1/cgi-bin/luci/;stok=4db03f7f13605fe43db32abc69d1b53d/webpanel/config
ARDUINO
YÚN
CONFIGURATION SAVED!
I'm restarting.
Please connect your computer to the wireless network called gatekeeper.

Yún 云

192.168.240.1/cgi-bin/luci/;stok=4db03f7f13605fe43db32abc69d1b53d/webpanel/config

ARDUINO YÚN

CONFIGURATION SAVED!

I'm restarting.
Please connect your computer to the wireless network called **gatekeeper**.

Restarted! You'll find me here.

Yún 云

192.168.240.1/cgi-bin/luci/;stok=bb22d2d0659ae3502514d04898ce1227/webpanel/config

Yún 云

Configuration saved!

I'm restarting.
Please connect your computer to the wireless network called **Free WiFi**.

Restarted! You'll find me here.

Yún 云

yunaya.local/cgi-bin/luci/;stok=bf49f9c83d05922c876985e78d5053f8/webpanel/homepage

ARDUINO YÚN

WELCOME TO **YUNAYA**, YOUR ARDUINO YÚN

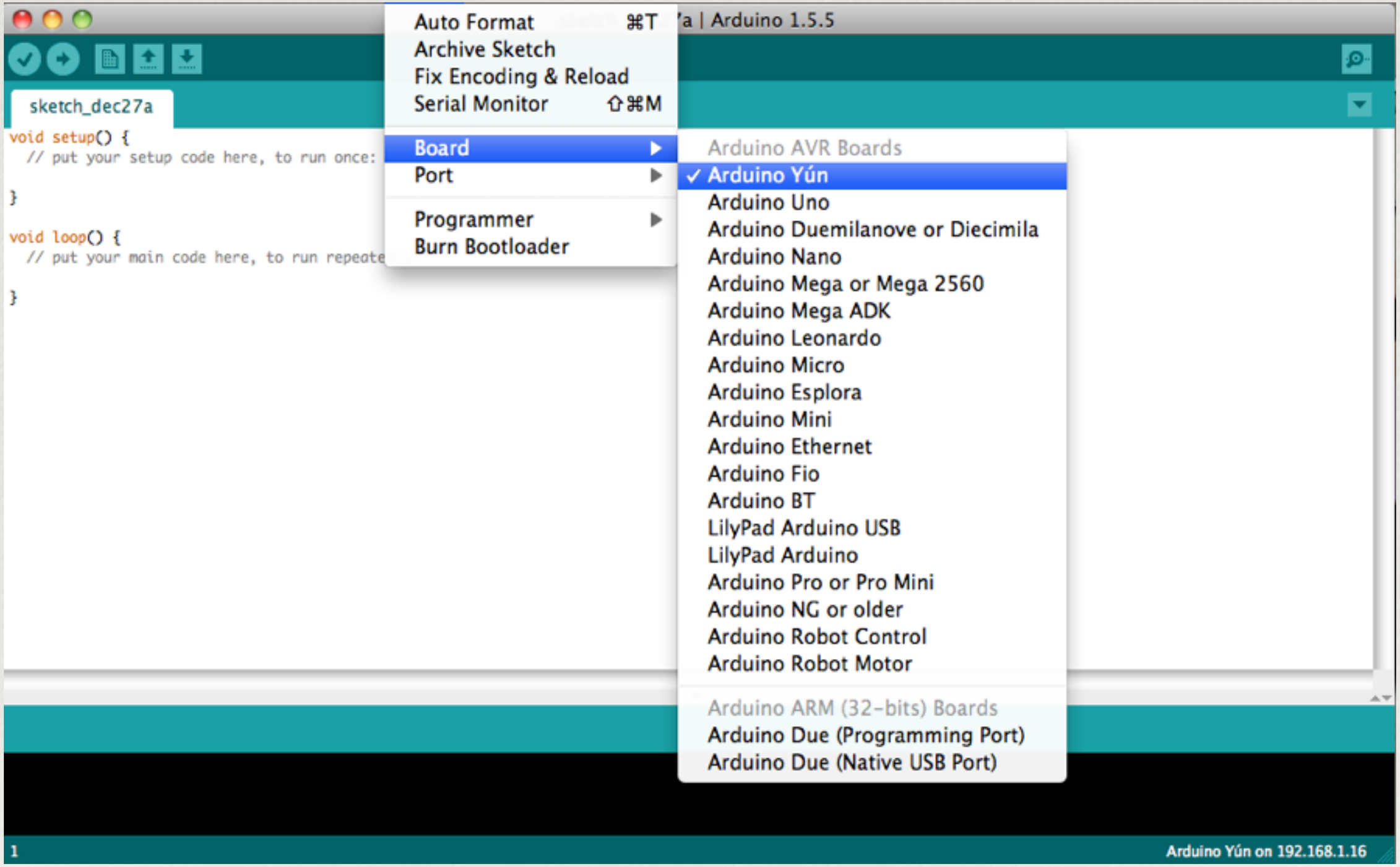
CONFIGURE

WIFI (WLAN0) CONNECTED

Address	**192.168.1.17**
Netmask	**255.255.255.0**
MAC Address	**90:A2:DA:F0:1A:4A**
Received	**120.63 KB**
Trasmitted	**78.59 KB**

WIRED ETHERNET (ETH1) DISCONNECTED

MAC Address	**90:A2:DA:F8:1A:4A**
Received	**0.00 B**
Trasmitted	**0.00 B**


a | Arduino 1.5.5
sketch_dec27a
void setup() {
// put your setup code here, to run once:
}
void loop() {
// put your main code here, to run repeate
}
Auto Format ⌘T
Archive Sketch
Fix Encoding & Reload
Serial Monitor ⇧⌘M
Board
Port
Programmer
Burn Bootloader
Arduino AVR Boards
✓ Arduino Yún
Arduino Uno
Arduino Duemilanove or Diecimila
Arduino Nano
Arduino Mega or Mega 2560
Arduino Mega ADK
Arduino Leonardo
Arduino Micro
Arduino Esplora
Arduino Mini
Arduino Ethernet
Arduino Fio
Arduino BT
LilyPad Arduino USB
LilyPad Arduino
Arduino Pro or Pro Mini
Arduino NG or older
Arduino Robot Control
Arduino Robot Motor
Arduino ARM (32-bits) Boards
Arduino Due (Programming Port)
Arduino Due (Native USB Port)
1
Arduino Yún on 192.168.1.16

Arduino File Edit Sketch Tools Help

Auto Format ⌘T
Archive Sketch
Fix Encoding & Reload
Serial Monitor ⇧⌘M

Board
Port
Programmer
Burn Bootloader

/dev/tty.Bluetooth-PDA-Sync
/dev/cu.Bluetooth-PDA-Sync
/dev/tty.Bluetooth-Modem
/dev/cu.Bluetooth-Modem
Yunaya at 192.168.1.17 (Arduino Yún)

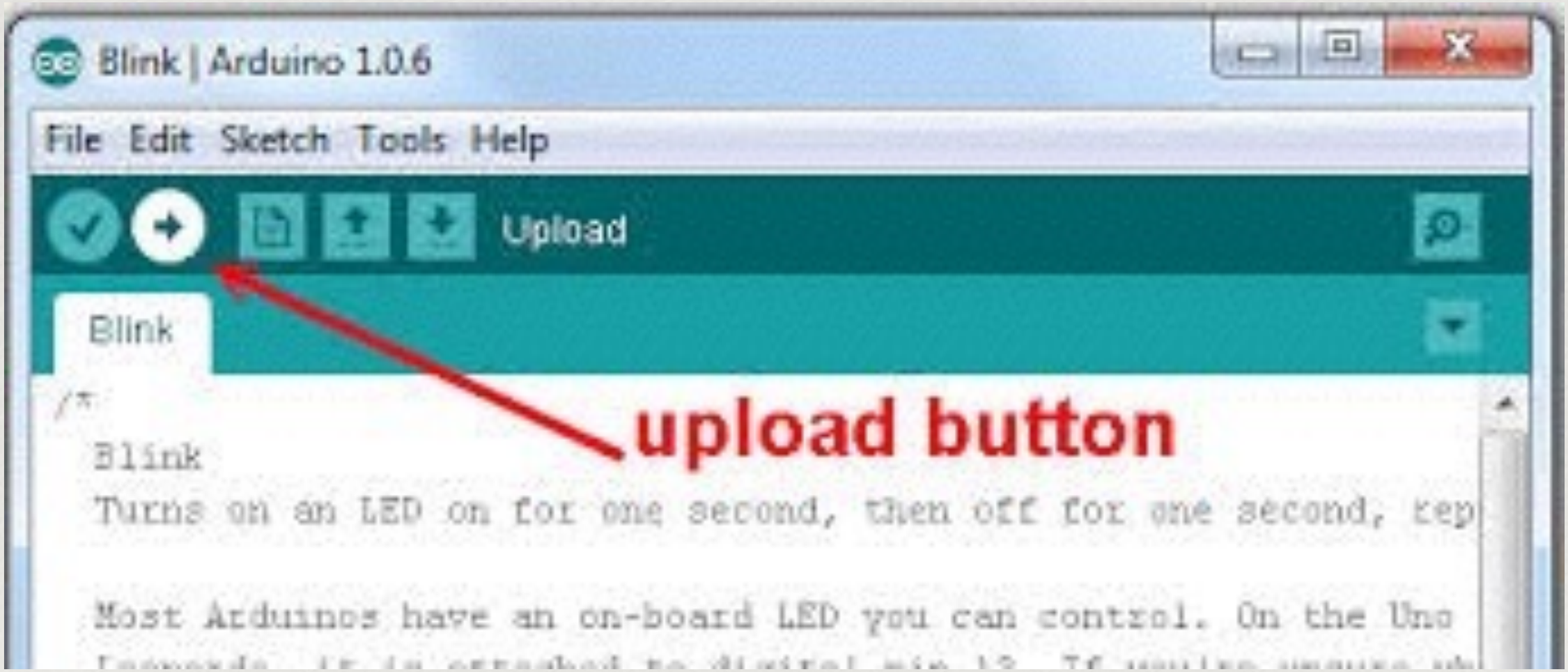
Arduino 1.5.5

Blink

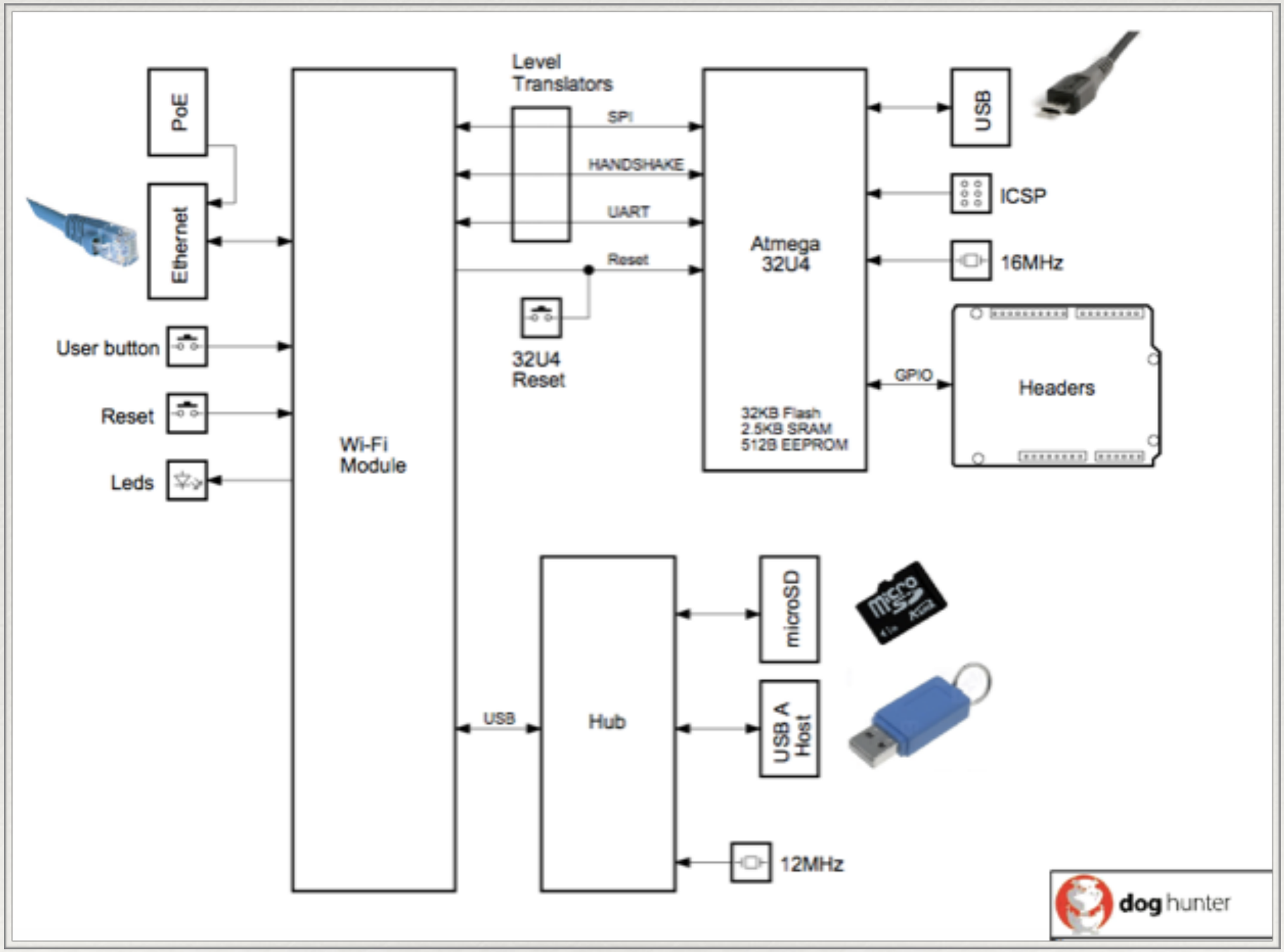
```
/*
  Blink
  Turns on an LED on for one second, then of

  This example code is in the public domain.
 */

// Pin 13 has an LED connected on most Arduino boards.
// give it a name:
int led = 13;

// the setup routine runs once when you press reset:
void setup() {
  // initialize the digital pin as an output.
  pinMode(led, OUTPUT);
}

// the loop routine runs over and over again forever:
void loop() {
  digitalWrite(led, HIGH);   // turn the LED on (HIGH is the voltage level)
  delay(1000);               // wait for a second
  digitalWrite(led, LOW);    // turn the LED off by making the voltage LOW
  delay(1000);               // wait for a second
}
```

Invalid library found in /Users/tenayahurst/Documents/Arduino/libraries/sensoriumMozzi4aa7b90: Missing 'src' folder

23 Arduino Yún on 192.168.1.16

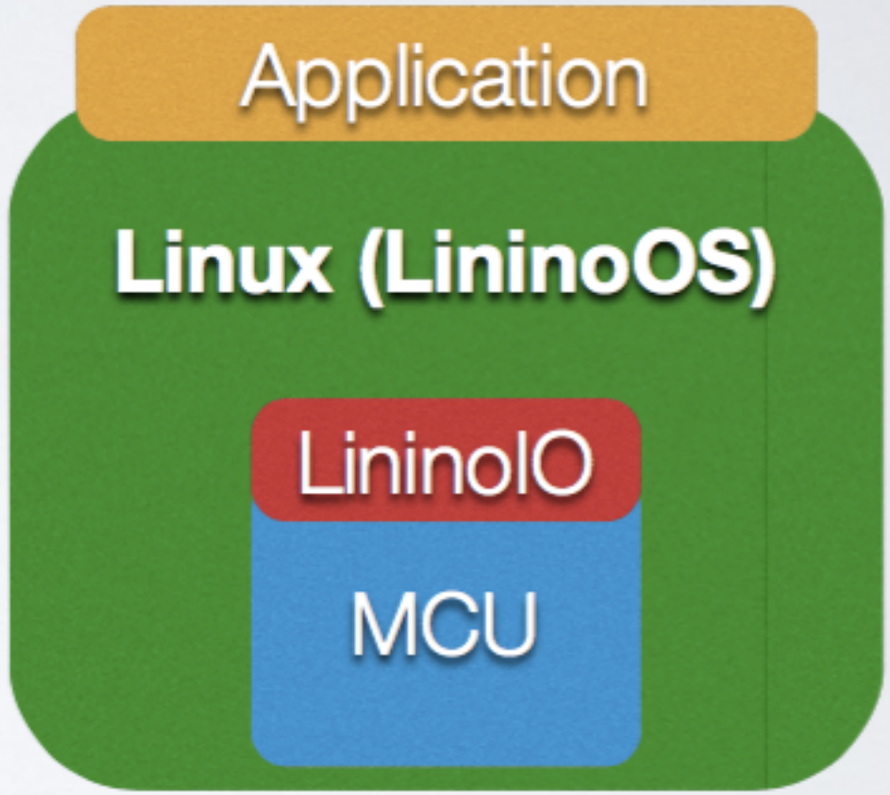

Blink | Arduino 1.0.6
File Edit Sketch Tools Help
Upload
Blink
upload button
/*
Blink
Turns on an LED on for one second, then off for one second, rep
Most Arduinos have an on-board LED you can control. On the Uno

LininoIO on ATMEL 32u4 MCU + LininoOS on MIPS 400 MHz + WiFi 802.11 a/b/g/n 2.4

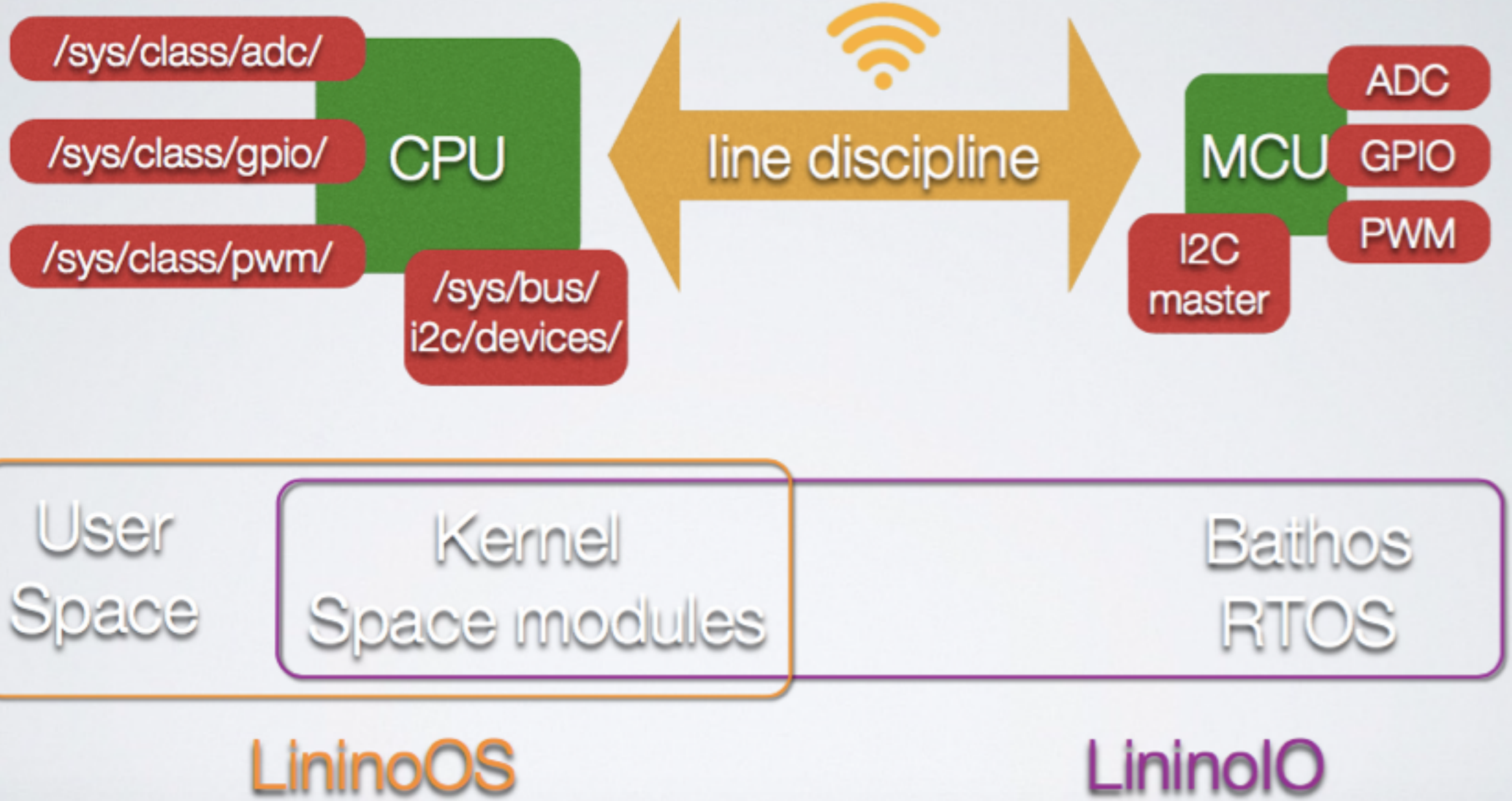


- LininoIO is a software framework able to integrate micro-controller features inside the microprocessor environment.

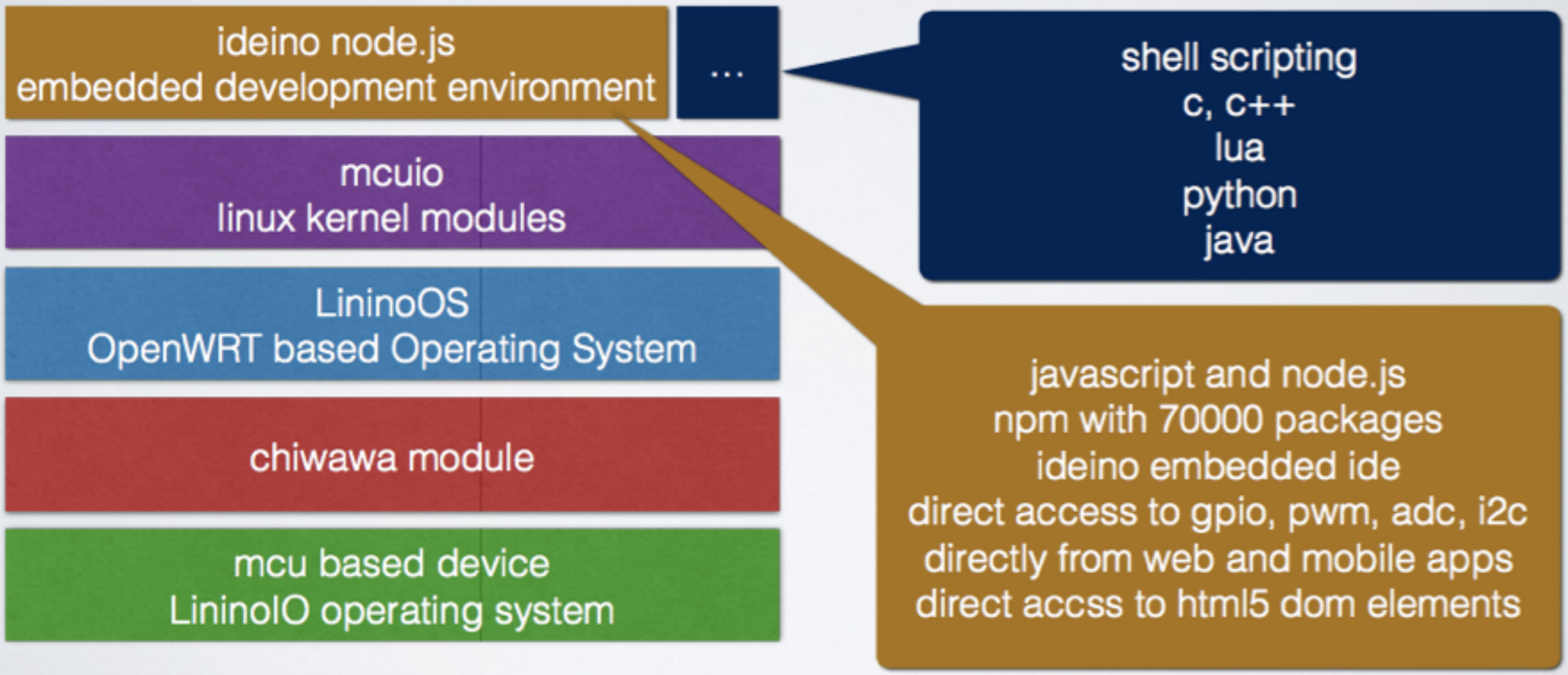
- You can write your application using AlljoynJS, Node.js, Python, Bash, etc., on lininoOS side using LininoIO to control the MCU and all the devices attached.



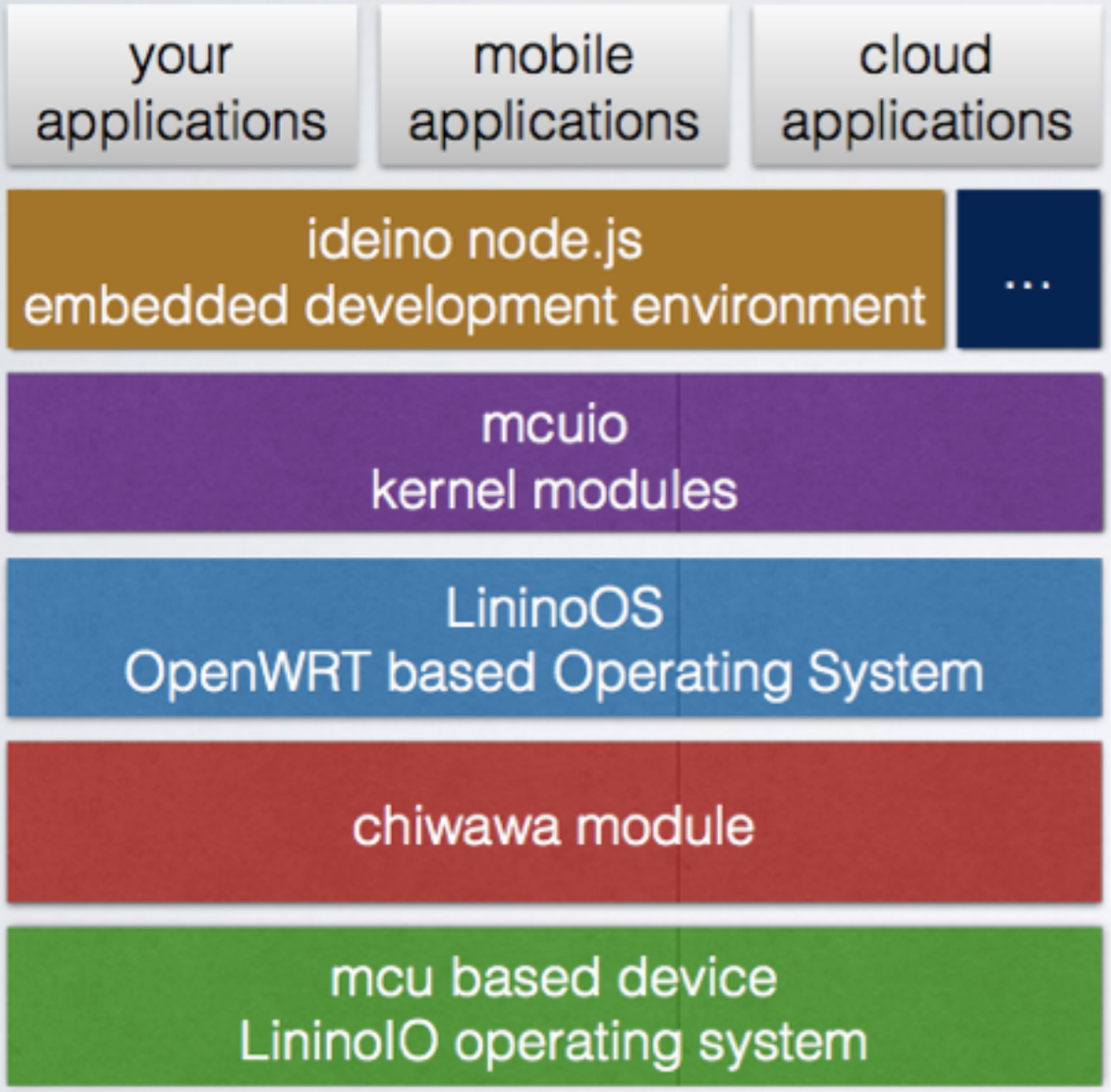
LininoOS/IO Architecture



linino open stack



linino open stack



monitoring

robotics

remote control

home automation

vehicle automation

drones control

energy management

linino.org arduino.org

more info on github, our wiki, and google!