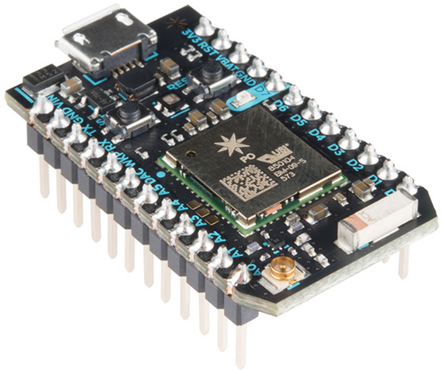
NOTI

by linzi wu

WHAT I DID

SOFTWARE



photon particle

```
/* ======================= includes ========================== */

#include "application.h"
#include "neopixel/neopixel.h" // use for Build IDE
// #include "neopixel.h" // use for local build

/* ======================= prototypes ========================== */

uint32_t Wheel(byte WheelPos);
uint8_t red(uint32_t c);
uint8_t green(uint32_t c);
uint8_t blue(uint32_t c);
void colorWipe(uint32_t c, uint8_t wait);
void pulseWhite(uint8_t wait);
void rainbowFade2White(uint8_t wait, int rainbowLoops, int whiteLoops);
void whiteOverRainbow(uint8_t wait, uint8_t whiteSpeed, uint8_t whiteLength);
void fullWhite();
void rainbowCycle(uint8_t wait);
void rainbow(uint8_t wait);

/* ======================= rgbw-strandtest.cpp ========================== */

SYSTEM_MODE(AUTOMATIC);

int photoresistor = A4;
int power = A5;
int analogvalue;
```

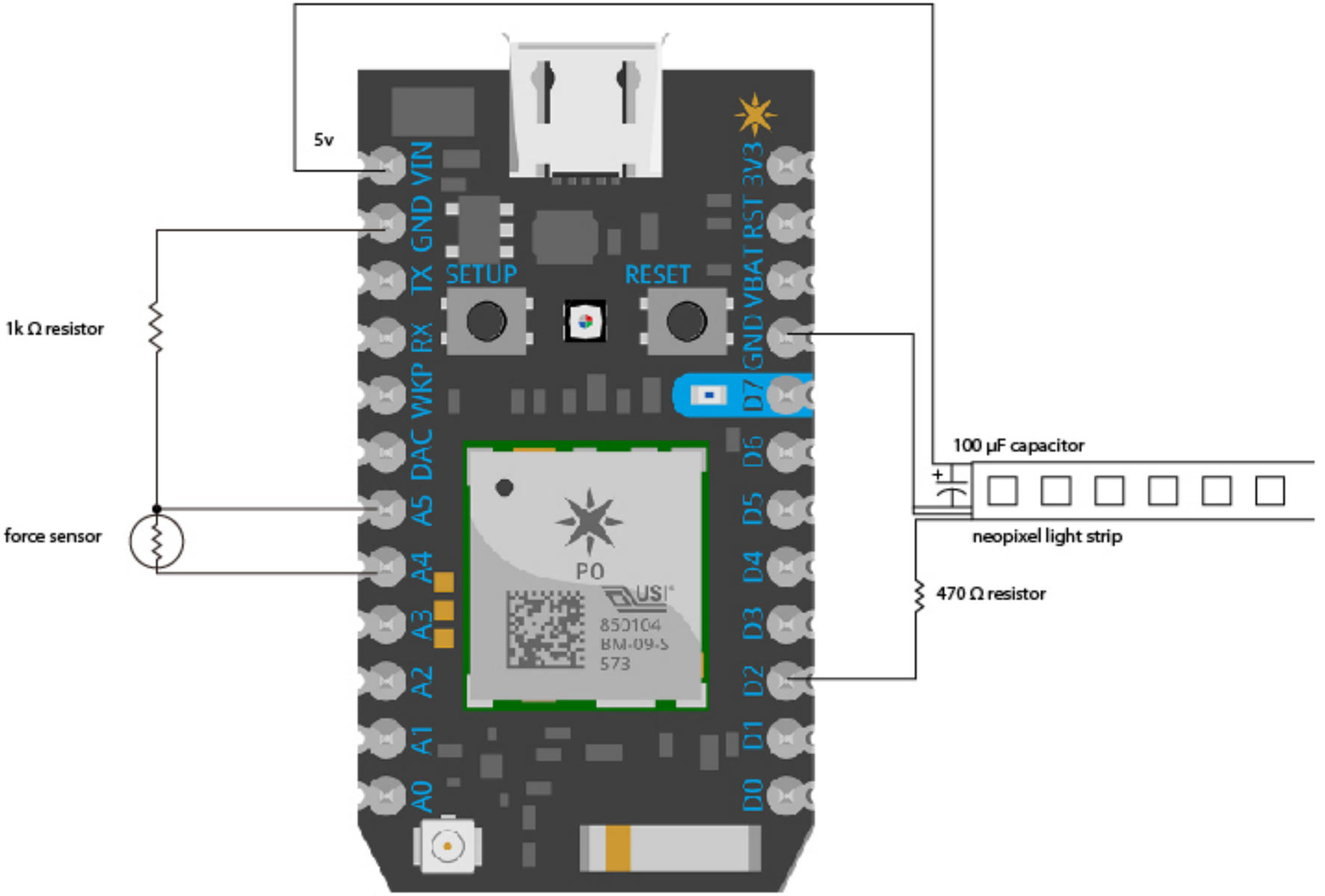
code & IFTTT

HAREWARE

force sensor

led strip

SCHEMATIC

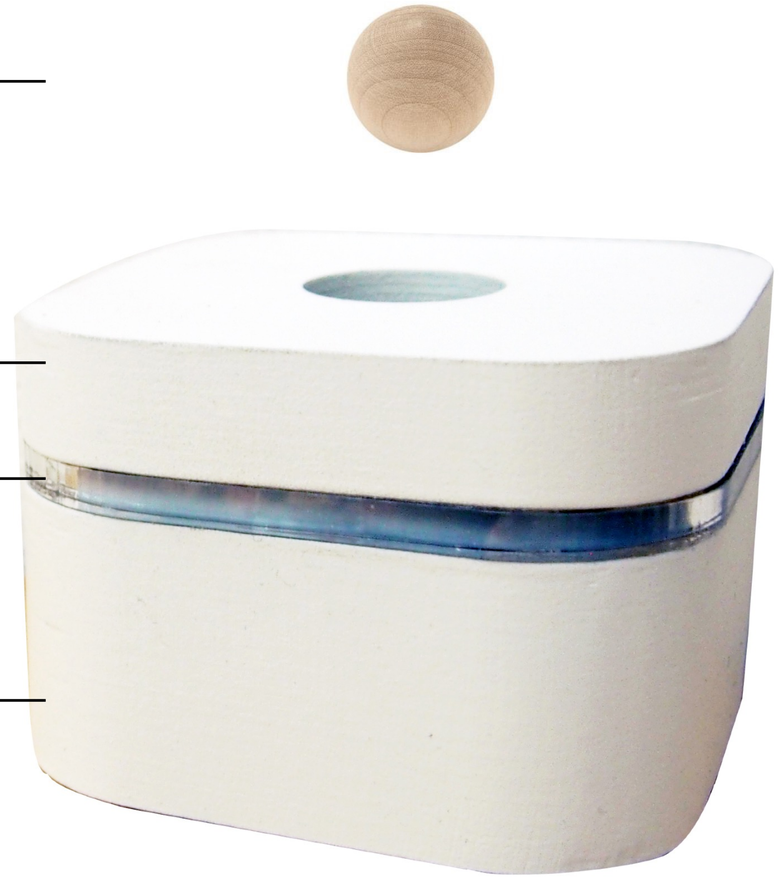

5v
1k Ω resistor
force sensor
100 µF capacitor
neopixel light strip
470 Ω resistor
SETUP
RESET
VIN
GND
TX
RX
WKP
DAC
A5
A4
A3
A2
A1
A0
3V3
RST
VBAT
GND
D7
D6
D5
D4
D3
D2
D1
D0

physical balls
with different weights

force sensor

neopixel led light strip

particle photon



SENSOR READING

wood ball

Particle.variable()

analogvalue (Integer) 17

<20

acrylic ball

Particle.variable()

analogvalue (Integer) 37

30-60

steel ball

Particle.variable()

analogvalue (Integer) 159

>100

DIFFICULT PROBLEMS

- ELEMENTS AND DELIVERY

Have to figure out all the elements that are needed in the project ahead so that it arrives in time.

- CODE

First time to work with Photon and IFTTT. Have no idea how to let two softwares talk to each other.

- PHOTON CONNECTION

It’s really hard to connect Photon to school wifi. So I have to bring it home to work at most time.

- PHYSICAL DEVICE

First time to make a physical case for electronic devices. Have to plan ahead before making the model. (Have to take the USB size into account, which I forgot at first.)

- ELECTRONIC/SOLDERING

Transferring all the electronic circuit part to the soldering board in a minimal size.