Arduino로 형광등 제어하기

With Servo Motor, Bluetooth Module

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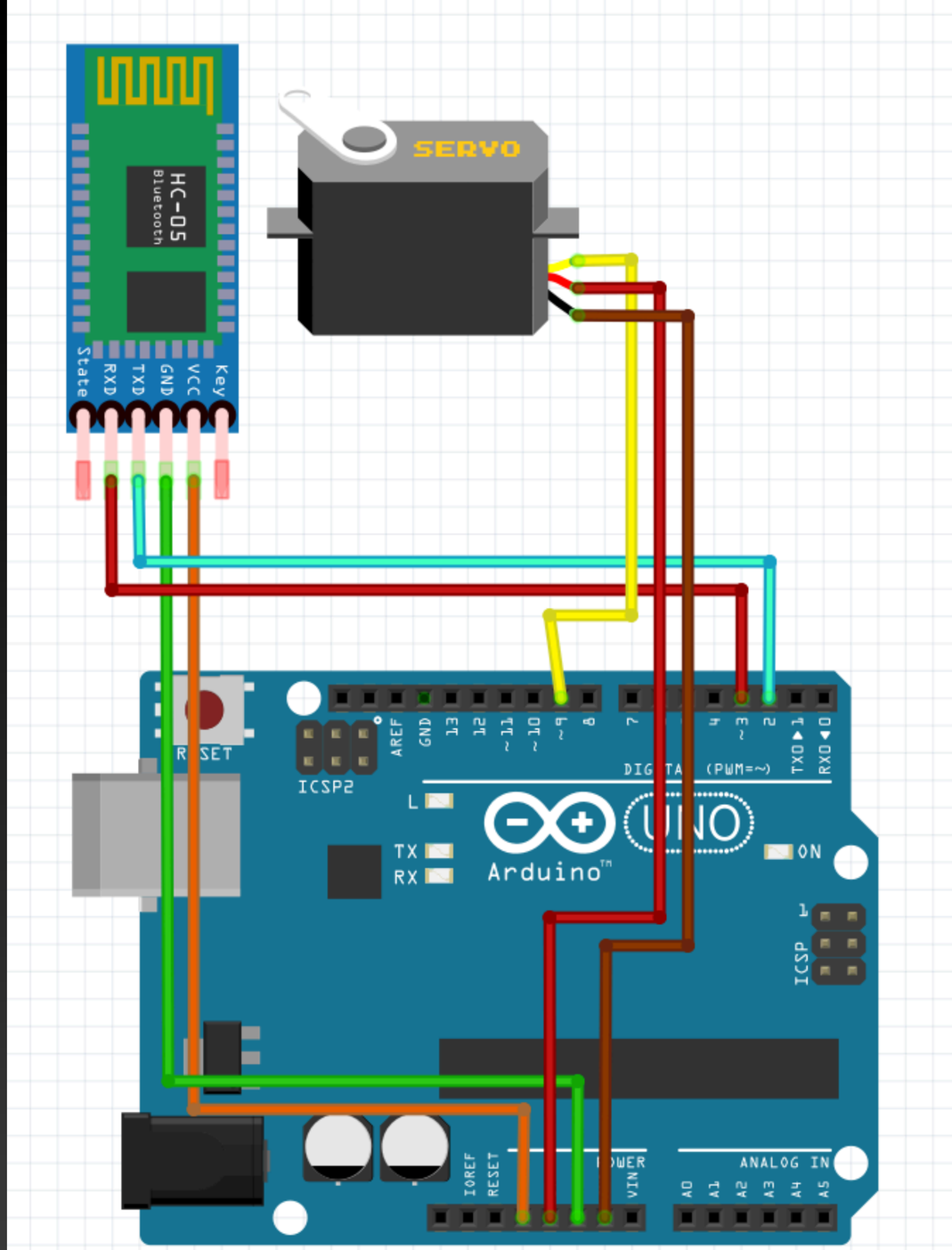
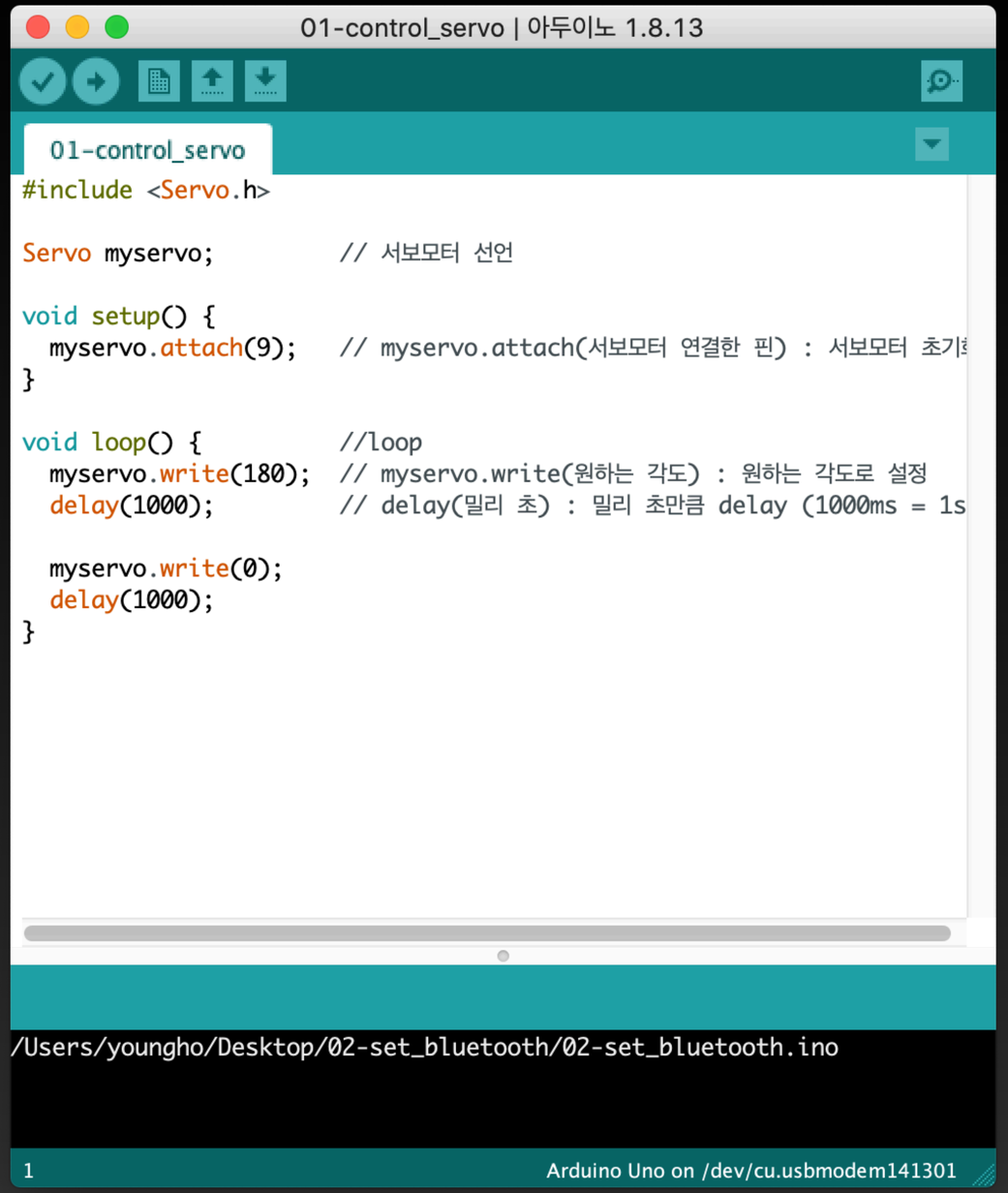
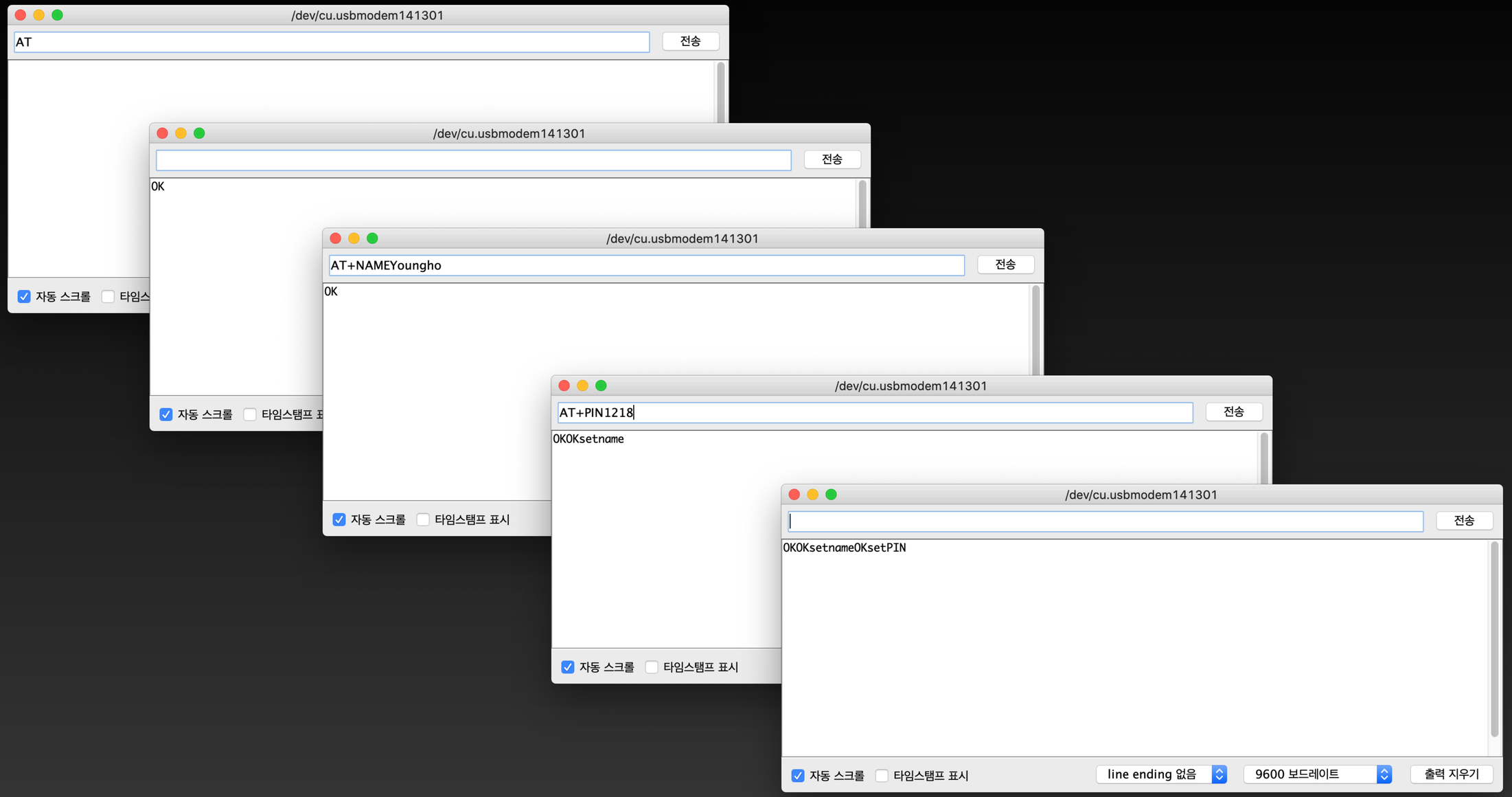
1. 회로 연결


HC-05
Bluetooth
State
RXD
TXD
GND
VCC
Key
SERVO
RESET
ICSP2
AREF
GND
13
12
~11
~10
~9
8
7
~3
2
TXD▶1
RXD◀0
DIGITAL (PWM=~)
L
TX
RX
Arduino™
UNO
ON
ICSP
IOREF
RESET
VIN
ANALOG IN
A0
A1
A2
A3
A4
A5

2. Servo Motor 제어

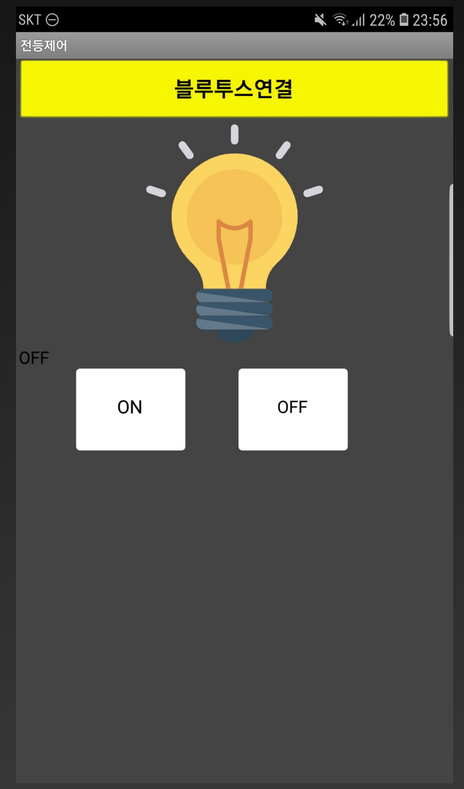


3. Bluetooth Module 설정

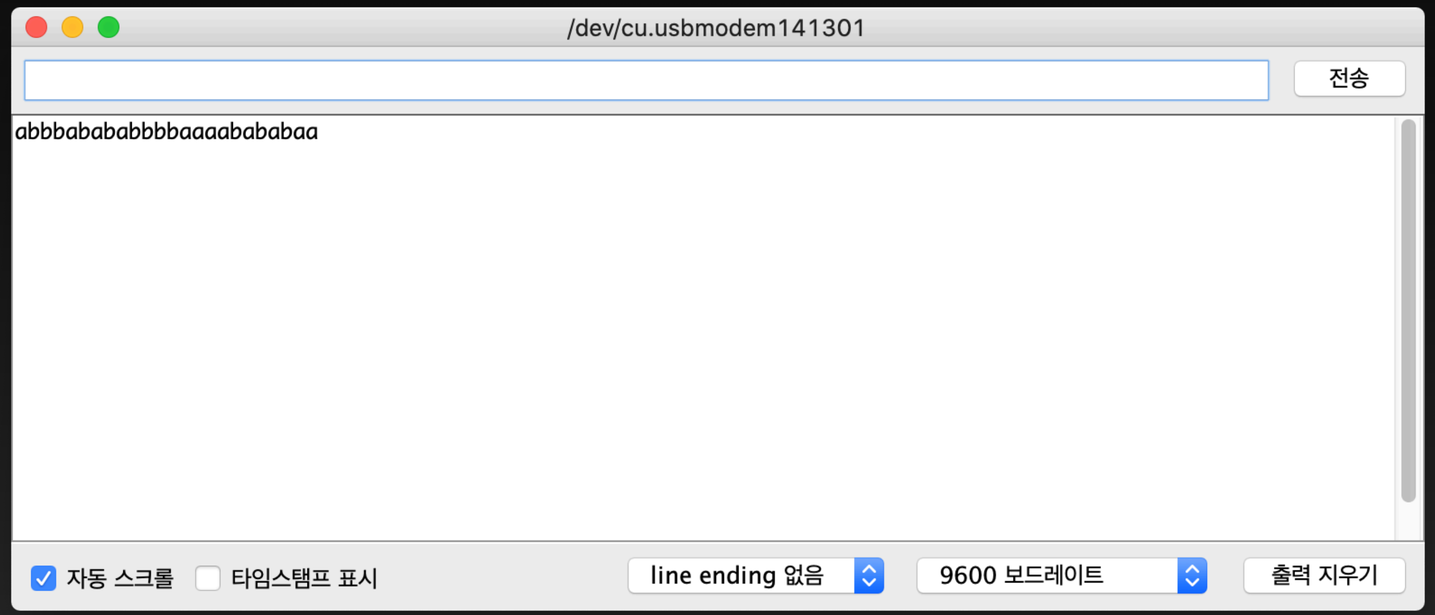

/dev/cu.usbmodem141301
AT
전송
자동 스크롤
/dev/cu.usbmodem141301
전송
OK
자동 스크롤
/dev/cu.usbmodem141301
AT+NAMEYoungho
전송
OK
자동 스크롤
타임스탬프 표시
/dev/cu.usbmodem141301
AT+PIN1218
전송
OKOKsetname
자동 스크롤
타임스탬프 표시
/dev/cu.usbmodem141301
전송
OKOKsetnameOKsetPIN
자동 스크롤
타임스탬프 표시
line ending 없음
9600 보드레이트
출력 지우기

3. App download

- https://drive.google.com/file/d/1TyzP1zPN2A4Pefi5OtZvyJKcA0yYum3C/view?usp=sharing



3. 연결 확인


/dev/cu.usbmodem141301
전송
abbbababababbbaaaababababaa
자동 스크롤
타임스탬프 표시
line ending 없음
9600 보드레이트
출력 지우기

4. 2 + 3


03-BT_Servo | 아두이노 1.8.13
03-BT_Servo
#include <SoftwareSerial.h>
#include <Servo.h>
SoftwareSerial BTSerial(2, 3);
Servo myservo;
void setup() {
Serial.begin(9600);
BTSerial.begin(9600);
myservo.attach(9);
}
void loop() {
if(BTSerial.available()) {
char data = BTSerial.read(); // 블루투스로 받은 값을 변수 data에 저장
if(data == 'a') { // data가 a면
myservo.write(180); // 서보모터 180도로 설정
} else if(data == 'b') {
myservo.write(0);
}
}
}
7
Arduino Uno on /dev/cu.usbmodem141301

EOF