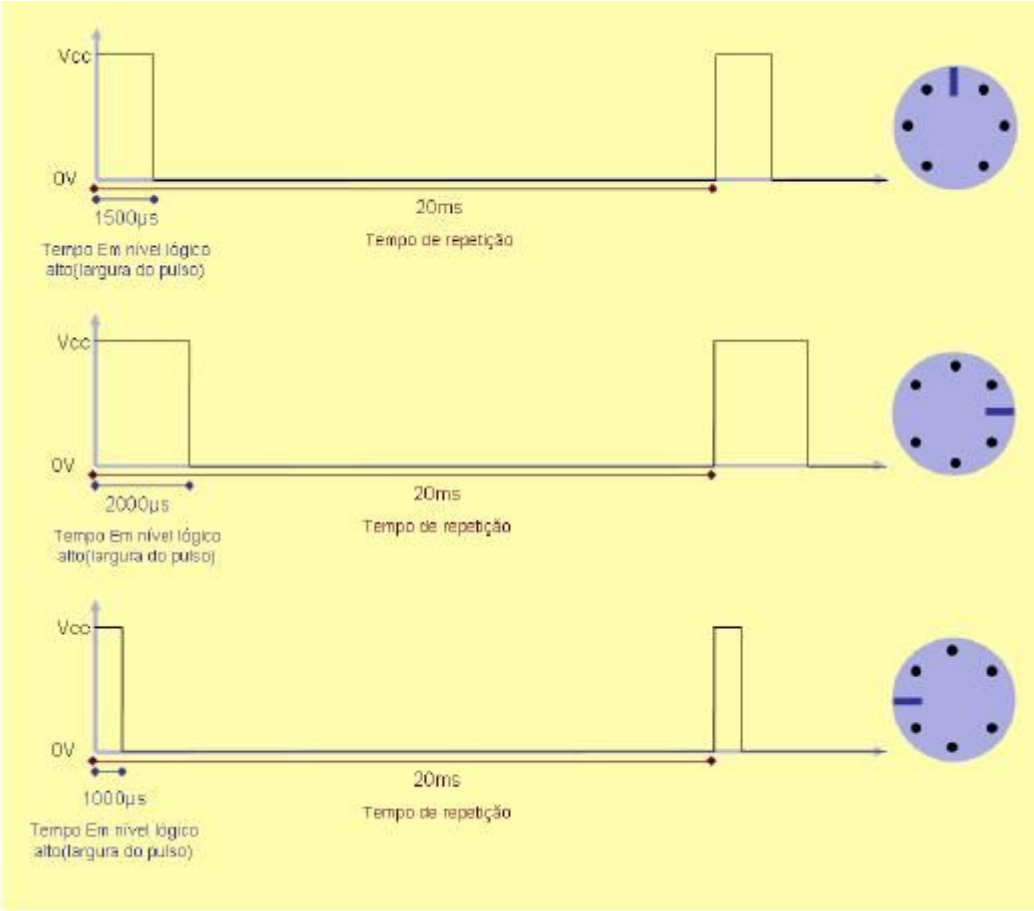
Hobby Servo

- Many different models
- Rotates from 0 to 180 degrees
  - Exceptions exists, but are uncommon
- Controlled the same way
- Commonly just called “servo”, but note that servos in industrial use DO NOT work the same way

Hobby Servo

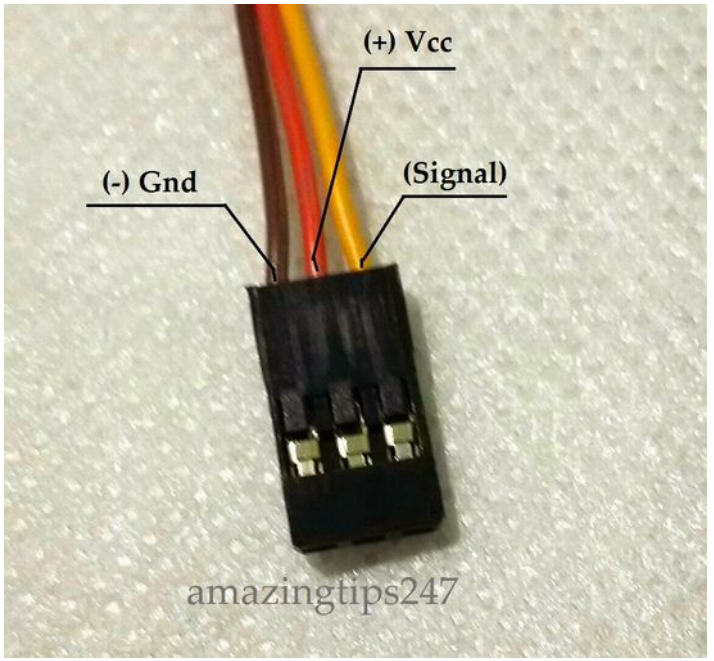
- Control Signals
  - A type of PWM, but...
  - ...ignores the duty cycle.
  - It only cares about the “on” time.
  - Signal format originates from radio-controlled toys



Slides available at: http://a9i.sg/vjc

Wiring

- Brown: Gnd
- Red: Vcc (eg. 5V)
- Orange: Signal (I/O pin)



Arduino Code

```
#include <Servo.h>

Servo myservo;
```

- “include” adds the servo library to your program
- “Servo myservo” creates the servo object. We’ll use it to control the servo.
- “myservo” can be replaced with any name.

Arduino Code

```
myservo.attach(9);
```

- Connect the servo object to pin 9. This should be in “setup”.

```
myservo.write(90);
```

- Sets the servo position
- Range from 0 to 180

Serial

- Read from serial port...

```
if (Serial.available()) {
    someValue = Serial.read();
```

- “Serial.available()” check if there are data to read.
- “Serial.read()” read a single byte
- Reading more than a single byte is not straightforward

Coding challenge

- Read from your potentiometer and control the servo position
  (Be sure to scale the value appropriately!)

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