Class 7: Controlling Servomotor with a user interface

Remember

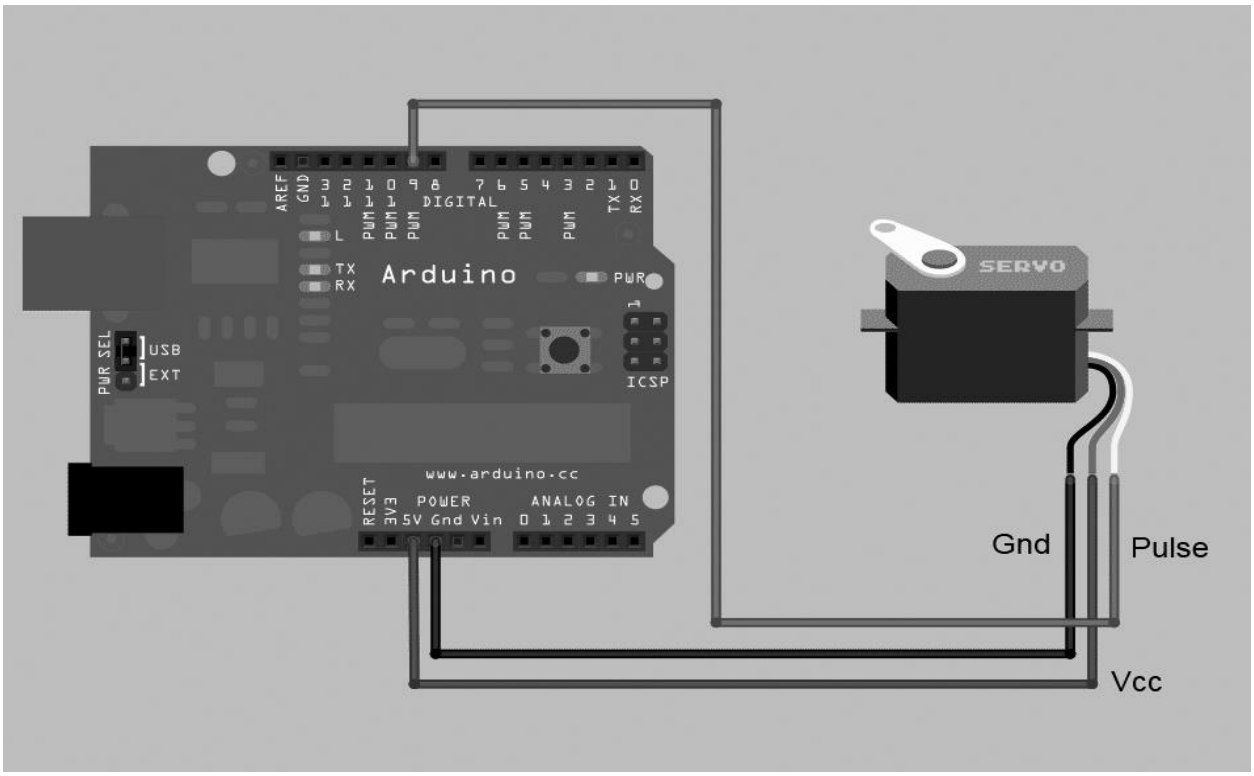
- You need to install and import Arduino Library
- You need to install and import ControlP5 Library
- ControlP5 reference: http://www.sojamo.de/libraries/controlP5/reference/index.html

Information

- What is a servomotor? http://www.seattlerobotics.org/guide/servos.html

Actions

- Test your servomotor with only Arduino
- Test Processing-Arduino connection with a previous code/LED at pin13
- Load ServoFirmata to Arduino
- Connect servomotor to Arduino (do not connect powerful servos directly to Arduino)



- Investigate and write the following code to Processing

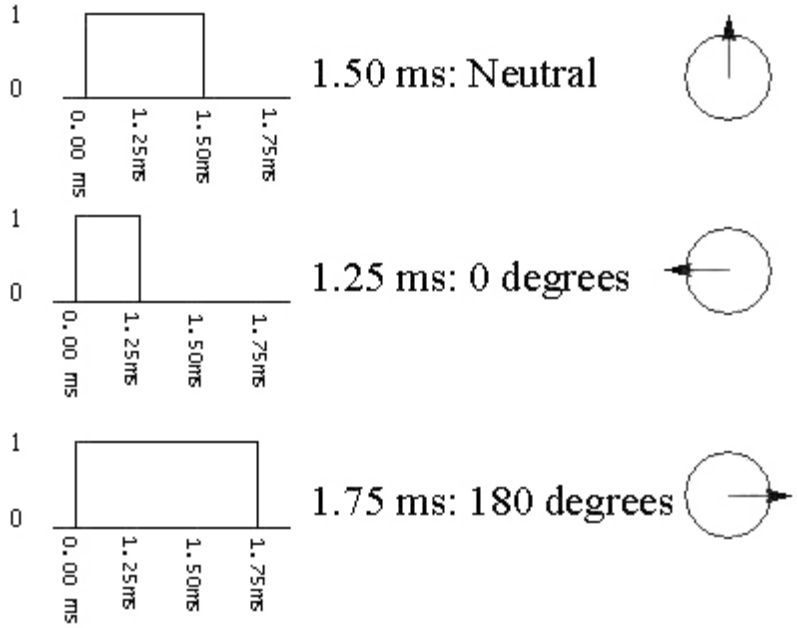
```
//libraries
import processing.serial.*;
import cc.arduino.*;
import controlP5.*;
ControlP5 controlP5;
```

```
//variables
Arduino arduino;
int servoAngle = 90;

void setup() {
size(400,400);
println(Arduino.list());
arduino = new Arduino(this, Arduino.list()[0], 57600);

for (int i = 0; i <= 13; i++)
arduino.pinMode(i, Arduino.OUTPUT);
controlP5 = new ControlP5(this);
controlP5.addSlider("servoAngle",0,180,servoAngle,20,10,180,20); //see reference
}

void draw() {
arduino.analogWrite(9, servoAngle);
//delay(15);
}
```



PWM servo relation

Assignments (DUE July 29)

Catch up/fix any code that is not working.

Add what you learned in the classes to your own projects.

Next time seven segment displays (and temperature sensor).