ARDUINO LESSON: Pot input to Servo output.

Start with the same breadboard setup you did for the Potentiometer lesson (three wires, black/ground, white/power, color/center of pot to analog input A0).

Now we are going to add a servo.

COLOR CODE: *** VERY IMPORTANT: CONNECT IT WRONG AND YOU FRY THE SERVO! ***

Servo motors have three wires: power, ground, and signal. Different brands use different colors, but:

    - the power wire is typically red
    - the ground wire is typically black or brown
    - the signal pin is typically yellow, orange or white and should be connected to the
    Arduino digital pin 9

I have added a black, white, and orange or yellow jumper wire to the end of the servo to make this easier. Thus, if you have a servo prepared by me, it will have the following color code:

    - power is white
    - ground is black
    - signal is orange or yellow

As there is just one +5V power pin in the Arduino, and the pot is already using it, you cannot also stick the servo's white power wire into it too. But you can stick the servo's white jumper into the pot's breadboard in the same row as it's white power pin. And you might as well use the ground row there for the servo's ground wire as well.

The servo's "signal" pin should go directly to the Arduino digital pin 9. Any digital pin can be used, but the example program supplied with the Arduino software (the "Knob" program) uses pin 9 so we need to use pin 9 so that that program will work.

Second reminder: if you connect power and ground backwards you fry the servo! Don't do it! (This is a good reason why I always use the same two colors--black and white--for ground and power. In this way, if you always connect black wires to black wires and white wires to white wires you won't go wrong!).

Find the "Knob" program in the Arduino built-in examples ("File --> Examples --> Servo --> Knob"). Load it and run it.

And play with the pot. Observe what happens.

Cool, eh?

END OF LESSON.