

ARDUINO LIBRARIES: Writing code that sends precise PWM signals to the servo would be time consuming and would require a lot more knowledge about the servo. Luckily, the Arduino IDE has hundreds of built-in and user-submitted containers of code called libraries. One of the built-in libraries, the **Servo Library**, allows us to control a servo with just a few lines of code!

To use one of the built-in Arduino libraries, all you have to do is “include” a link to its header file. A header file is a smaller code file that contains definitions for all the functions used in that library. By adding a link to the header file in your code, you are enabling your code to use all of those library functions. To use the Servo Library, you would add the following line to the top of your sketch.

```
#include <Servo.h>
```

OBJECTS AND METHODS: To use the Servo Library, you will have to start by

creating a servo object, like this:

```
Servo myServo;
```

Objects look a lot like variables, but they can do much more. Objects can store values, and they can have their own functions, which are called methods.

The most used method that a servo object has is `.write()`:

```
myServo.write(90);
```

The write method takes one parameter, a number from 0 to 180, and moves the servo arm to the specified position (in this case, degree 90).

Why would we want to go to the trouble of making an object and a method instead of just sending a servo control signal directly over a pin? First, the servo object does the work of translating our desired position into a signal the servo can read. Second, using objects makes it easy for us to add and control more than one servo.

SERVO BASICS: Servo motor connectors are polarized, but there is no place to attach them directly. Instead, connect three jumper wires to the female 3-pin header on the servo. This will make it so you can connect the servo to the breadboard. The servo wires are color coded to make hookup simple.

