ADAFRUIT INNOVATION LAB

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SERVO MOTOR

LIBRARY:- #include<Servo.h>

FUNCTIONS:- Here are various functions present in Servo library and used to interface servo motor with Arduino. An object should be created for each servo motor connected.

Servo *objectName;*

eg:- Servo servo1;

1. **attach():-** This function is used to define the pin number at which servo motor is attached.
   syntax:- *objectName.*attach(*pinNumber);*
   eg:- servo1.attach(9);
   servo2.attach(3);

2. **attach():-** this function is same as above but takes two extra arguments minimum and maximum write values.
   syntax:- *objectName.*attach(*pinNumber, minimumValue, maximumValue);*
   eg:- servo1.attach(9, 10, 180);

3. **detach():-** This function is used to detach the servo connected to a pin of Arduino.
   syntax:- *objectName.*detach();
   eg:- servo1.detach();

4. **write():-** This is used to pulse for servo rotation. If value is less than 200 then it'll be an angle else it'll be microsecond delay pulse.
   syntax:- *objectName.*write(*value);*
   eg:- servo1.write(90) //it is 90 degree.

5. **writeMicroseconds():-** This function is used to give pulses for servo motor movement I microseconds.
   syntax:- *objectName.*writeMicroseconds(*value);*
   eg:- servo1.writeMicroseconds(5);

6. **read():-** This function is used to read the current pulse width used by servo motor.
   syntax:- *variableName = objectName.*read();

eg:- int data = servo1.read();

7. **readMicroseconds():-** This function is used to read the current pulse width used by servo.
   syntax:- *variableName = objectName.*readMIcroseconds();
   eg:- unsigned long int duration = servo1.readMicroseconds();

8. **attached():-** This is a function which returns TRUE If servo is attached and FALSE if servo is not attached.
   syntax:- bool *variableName = objectName.*attached();
   eg:- bool data = servo1.attached();