Testing of servo motor

As discussed before

Testing is done to ensure proper functionality of the circuits. Indivisual circuits & modules should be tested saperately so that there will not be any problems in further design.

For Servo motor we performed only functionality test because it is a ready-made device & its internal circuits are not easily accessable.

Testing

Servo motor requires PWM signal for its operation. Duty cycle of this input signal decides the angle of rotation of the shaft.

For twsting purpose we interfaced the motor with arduino UNO(PIN 3).

And wrote a program to rotate the motor in both directions.

Connections:-

|  |  |
| --- | --- |
| Servo pins | Arduino uno pins |
| PWM | PIN 3 |
| VCC | +5V |
| GND | GND |

Program

#include <Servo.h> // Include Servo library

int servoPin = 3; // Declare the Servo pin

Servo Servo1; // Create a servo object

void setup()

{

Servo1.attach(servoPin); // define pin 3 for servo1

}

void loop()

{

Servo1.write(0); // go to 0 degrees

delay(1000);

Servo1.write(90); // go to 90 degrees

delay(1000);

Servo1.write(180); // go to 180 degrees

delay(1000);

}