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/*
Adapted From: Analog Input by David Cuartielles and Tom Igoe
Author: Malcolm Knapp
Project: Ultrasonic Sensor to Servo
Date: 4/10/14
Version: 0.1
Description: This code shows how to use a Ultrasonic Distance Sensor to
control the "blink" rate of a servo. In this case "blink" means
moving between two positions.
*/
// ----- included libraries -----
#include <Servo.h>
#include <NewPing.h>

// ----- hardware pin defines -----
int triggerPin = 12; // select the pin for ultrasonic trigger
int echoPin = 11; // select the pin for echo

// ----- variable initialization -----
int delayTime = 0;
//variable that holds the delay time in milliseconds
int scaling = 1;
int maxValue = 3000; // in microseconds
int minValue = 50; // in microseconds
int maxDistance = 200; // in centimeters

// ----- library initialization -----
Servo myservo; // create servo object to control a servo a maximum of eight servo objects can be created
NewPing sonar(triggerPin, echoPin, maxDistance);

void setup() {
Serial.begin(9600);
// declare hardware connections
myservo.attach(9); // attaches the servo on pin 9 to the servo object
}

void loop() {
// Input
delay(50); // Wait 50ms between pings (about 20 pings/sec). 29ms should be the shortest delay between pings.
uS = sonar.ping(); // Send ping, get ping time in microseconds (uS).
distance = uS / US_ROUNDTRIP_CM; // convert time to distance
// Debugging
Serial.print("Sensor value: "); Serial.println(uS);

// Processing
//Scaling
delayTime = map (uS, minValue, maxValue, 0, 1023);
Serial.print ("Delay in milliseconds: "); Serial.println (delayTime);
// Modes
// None - put new modes here

// Output
myservo.write(155);
delay(delayTime);
myservo.write(30);
delay(delayTime);
}
```

```
/*
Adapted From: Analog Input by David Cuartielles and Tom Igoe
Author: Malcolm Knapp
Project: Ultrasonic Sensor to Computer
Date: 4/10/14
Version: 0.1
Description: This code shows how to use a Ultrasonic Distance Sensor to control
the blink rate of a computer screen.
*/
// ----- included libraries -----
#include <NewPing.h>

// ----- hardware pin defines -----
int triggerPin = 12; // select the pin ultrasonic trigger
int echoPin = 11; // select pint

// ----- variable initialization -----
int delayTime = 0; //variable that holds the delay time in milliseconds
int scaling = 1;
unsigned int uS = 0; // holds the time it took for the pulse to be received
unsigned int distance = 0; // holds the distance in centimeters
int maxValue = 3000; // in microseconds
int minValue = 50; // in microseconds
int maxDistance = 200;
char Terminator = 13;

// ----- library initialization -----
NewPing sonar(triggerPin, echoPin, maxDistance);

void setup() {
Serial.begin(9600);
// declare hardware connections
}

void loop() {
// Input
delay(50); // Wait 50ms between pings (about 20 pings/sec). 29ms should be the shortest delay between pings.
uS = sonar.ping(); // Send ping, get ping time in microseconds (uS).
distance = uS / US_ROUNDTRIP_CM; // convert time to distance
// Debugging
Serial.print("Sensor value: "); Serial.println(uS);

// Processing
//Scaling
delayTime = map (uS, minValue, maxValue, 0, 1023);
Serial.print ("Delay in milliseconds: "); Serial.println (delayTime);
// Modes
// None - put new modes here

// Output
Serial.print("ON"); Serial.println(Terminator, DEC);
delay(delayTime);
Serial.print("OFF"); Serial.println(Terminator, DEC);
delay(delayTime);
}
```