Arduino

* Working of servo

#include <Servo.h>

Servo myservo;

int pos = 0;

void setup()

{

myservo.attach(9);

}

void loop()

{

for (pos = 0; pos <= 180; pos += 1)

{

myservo.write(pos);

delay(15);

}

for (pos = 180; pos >= 0; pos -= 1)

{

myservo.write(pos);

delay(15);

}

}

* I2C communication

#include <Wire.h>

const int MPU6050\_add=0x68; // Device address

int x;

void setup()

{

Wire.begin();

Serial.begin(9600);

delay(100);

Wire.beginTransmission(MPU6050\_add);

Wire.write(0x6B);

Wire.write(0);

Wire.endTransmission();

}

void loop()

{

Wire.beginTransmission(MPU6050\_add);

Wire.write(0x3B);

Wire.endTransmission(false);

Wire.requestFrom(MPU6050\_add,1,true);

x=Wire.read();

Serial.print(x);

}

* L298 motor driver

int enA = 9;

int in1 = 8;

int in2 = 7;

int enB = 3;

int in3 = 5;

int in4 = 4;

void setup()

{

pinMode(enA, OUTPUT);

pinMode(enB, OUTPUT);

pinMode(in1, OUTPUT);

pinMode(in2, OUTPUT);

pinMode(in3, OUTPUT);

pinMode(in4, OUTPUT);

}

void loop()

{

direction();

delay(1000);

speed();

delay(1000);

}

void direction() {

analogWrite(enA, 255);

analogWrite(enB, 255);

digitalWrite(in1, HIGH);

digitalWrite(in2, LOW);

digitalWrite(in3, HIGH);

digitalWrite(in4, LOW);

delay(2000);

digitalWrite(in1, LOW);

digitalWrite(in2, HIGH);

digitalWrite(in3, LOW);

digitalWrite(in4, HIGH);

delay(2000);

digitalWrite(in1, LOW);

digitalWrite(in2, LOW);

digitalWrite(in3, LOW);

digitalWrite(in4, LOW);

}

void speed() {

digitalWrite(in1, LOW);

digitalWrite(in2, HIGH);

digitalWrite(in3, LOW);

digitalWrite(in4, HIGH);

for (int i = 0; i < 256; i++)

{

analogWrite(enA, i);

analogWrite(enB, i);

delay(20);

}

for (int i = 255; i >= 0; --i)

{

analogWrite(enA, i);

analogWrite(enB, i);

delay(20);

}

digitalWrite(in1, LOW);

digitalWrite(in2, LOW);

digitalWrite(in3, LOW);

digitalWrite(in4, LOW);

}

* Performing serial communication

Code for sender Arduino:

char s[25]="From sender Arduino ";

void setup()

{

Serial.begin(9600);

}

void loop()

{

Serial.write(s);

delay(1000);

}

Code for receiver Arduino:

char s[25];

void setup()

{

Serial.begin(9600);

}

void loop()

{

if (Serial.available())

{

char s=Serial.read();

Serial.println(s);

}

delay(1000);

}