// Starting of Program

int m1a = 9;

int m1b = 10;

int m2a = 11;

int m2b = 12;

char val;

void setup()

{

pinMode(m1a, OUTPUT);  // Digital pin 10 set as output Pin

pinMode(m1b, OUTPUT);  // Digital pin 11 set as output Pin

pinMode(m2a, OUTPUT);  // Digital pin 12 set as output Pin

pinMode(m2b, OUTPUT);  // Digital pin 13 set as output Pin

Serial.begin(9600);

}

void loop()

{

  while (Serial.available() > 0)

  {

  val = Serial.read();

  Serial.println(val);

  }

  if( val == 'F') // Forward

    {

      digitalWrite(m1a, HIGH);

      digitalWrite(m1b, LOW);

      digitalWrite(m2a, HIGH);

      digitalWrite(m2b, LOW);

    }

  else if(val == 'B') // Backward

    {

      digitalWrite(m1a, LOW);

      digitalWrite(m1b, HIGH);

      digitalWrite(m2a, LOW);

      digitalWrite(m2b, HIGH);

    }

    else if(val == 'L') //Left

    {

    digitalWrite(m1a, LOW);

    digitalWrite(m1b, LOW);

    digitalWrite(m2a, HIGH);

    digitalWrite(m2b, LOW);

    }

    else if(val == 'R') //Right

    {

    digitalWrite(m1a, HIGH);

    digitalWrite(m1b, LOW);

    digitalWrite(m2a, LOW);

    digitalWrite(m2b, LOW);

    }

  else if(val == 'S') //Stop

    {

    digitalWrite(m1a, LOW);

    digitalWrite(m1b, LOW);

    digitalWrite(m2a, LOW);

    digitalWrite(m2b, LOW);

    }

  else if(val == 'I') //Forward Right

    {

    digitalWrite(m1a, HIGH);

    digitalWrite(m1b, LOW);

    digitalWrite(m2a, LOW);

    digitalWrite(m2b, LOW);

    }

  else if(val == 'J') //Backward Right

    {

    digitalWrite(m1a, LOW);

    digitalWrite(m1b, HIGH);

    digitalWrite(m2a, LOW);

    digitalWrite(m2b, LOW);

    }

   else if(val == 'G') //Forward Left

    {

    digitalWrite(m1a, LOW);

    digitalWrite(m1b, LOW);

    digitalWrite(m2a, HIGH);     digitalWrite(m2b, LOW);

    }

  else if(val == 'H') //Backward Left

    {

    digitalWrite(m1a, LOW);

    digitalWrite(m1b, LOW);

    digitalWrite(m2a, LOW);

    digitalWrite(m2b, HIGH);

    }

}

