```
#include <Servo.h> //for servo control

Servo servo1, servo2, servo3;
int a1 = 10, a2 = 10, a3 = 0;
float x = 0, y = 0, z = 0;
float Th1 = 90, Th2 = 90, Th3 = 90;
const float Pi = 3.14159;
String xStr, yStr;
int incomingByte = 0;

void setup() {
  // put your setup code here, to run once:
 servo1.attach(9);
 servo2.attach(7);
 servo3.attach(4);
 Serial.begin(9600);
}

void loop() {
  // put your main code here, to run repeatedly:
 Serial.println("Enter joint angle 1 in degree:");
 while (Serial.available() == 0)
  {
    //Wait for user input
  }
 Th1 = Serial.parseFloat();
 incomingByte = Serial.read();

 Serial.println("Enter joint angle 2 in degree:");
 while (Serial.available() == 0)
  {
    //Wait for user input
  }
 Th2 = Serial.parseFloat();
 incomingByte = Serial.read();

 Serial.println("Enter joint angle 3 in degree:");
 while (Serial.available() == 0)
  {
    //Wait for user input
  }
 Th3 = Serial.parseFloat();
 incomingByte = Serial.read();

 servo1.write(Th1);
```

```
 servo2.write(Th2);
 servo3.write(Th3);

  x = a1 * cos(Th1 * Pi / 180) + a2 * cos((Th1 * Pi / 180) + (Th2 * Pi / 180));
  y = a1 * sin(Th1 * Pi / 180) + a2 * sin((Th1 * Pi / 180) + (Th2 * Pi / 180));
  xStr = String(x);
  yStr = String(y);

  Serial.print("x = " + xStr);
 Serial.print("\t");
  Serial.print("y = " + yStr);
  Serial.println(" ");
Serial.println("--------------------------------");

  delay(5000);
}
```