```
#include <Stepper.h>
#include <Arduino.h>
#include "BasicStepperDriver.h"
#include "MultiDriver.h"
#include "SyncDriver.h"
#include <SoftwareSerial.h>
#include <Servo.h>

Servo myservo;
int A = 0;
int B = 0;
int state = 0;
String message;
int QTY, numMessages, endBytes;
byte inByte;
int flag = 0;
int C = 0;
float D = 0;
int E = 0;
int Start = 22;
int End = 31;

#define MOTOR_STEPS 200
#define DIR_X 7
#define STEP_X 4
#define DIR_Y 6
#define STEP_Y 3
#define MICROSTEPS 16
#define MOTOR_X_RPM 50
#define MOTOR_Y_RPM 200
```

```cpp
BasicStepperDriver stepperX(MOTOR_STEPS, DIR_X, STEP_X);
BasicStepperDriver stepperY(MOTOR_STEPS, DIR_Y, STEP_Y);
SyncDriver controller(stepperX, stepperY);

void setup() {
  numMessages, endBytes = 0;
  myservo.attach(9);
  Serial.begin(9600);
  stepperX.begin(MOTOR_X_RPM, MICROSTEPS);
  stepperY.begin(MOTOR_Y_RPM, MICROSTEPS);
  myservo.write(Start);
  delay(2000);
}

void loop() {
  data();

  if (A > 0 && B > 0 && C > 0) {
    delay(2000);

    for (int i = 0; i < C; i++) {
      controller.move(A * 25, 0);
      delay(500);
      controller.rotate(0, 360);
      delay(500);
      controller.move(B * 25, 0);
      delay(500);
      controller.rotate(0, 360);
      delay(500);
```

```
      controller.move(A * 25, 0);

      delay(500);

      myservo.write(End);

      delay(500);

      controller.rotate(0, 360);

      delay(500);

      myservo.write(Start);

      delay(500);

      Serial.print(i);

    }

    A = 0;

    B = 0;

    C = 0;

  }

}


void data() {

  if (state == 0) {

    if (numMessages == 1) {

      A = QTY;

      Serial.println(A);

      numMessages = 0;

      state = 1;

    }

  }


  if (state == 1) {

    if (numMessages == 1) {

      B = QTY;

      Serial.println(B);
```

```arduino
      numMessages = 0;

      state = 2;

    }

  }


  if (state == 2) {

    if (numMessages == 1) {

      C = QTY;

      Serial.println(C);

      numMessages = 0;

      state = 0;

    }

  }


  if (Serial.available()) {

    inByte = Serial.read();


    if (inByte > 47 && inByte < 58) {

      message.concat(char(inByte));

    } else if (inByte == 255) {

      endBytes = endBytes + 1;

    }


    if (inByte == 255 && endBytes == 3) {

      QTY = message.toInt();

      message = "";

      endBytes = 0;

      numMessages = numMessages + 1;

    }

  }
```

}