

```

#include <SoftwareSerial.h>
SoftwareSerial XBee(2, 3); // RX, TX

const int FLEX_PIN1 = A2; // Pin connected to voltage divider output
const int FLEX_PIN2 = A0; // Pin connected to voltage divider output
const int FLEX_PIN3 = A3; // Pin connected to voltage divider output
const int FLEX_PIN4 = A5; // Pin connected to voltage divider output
int button = 7;
int b = 0;
int previous = LOW;
void setup() {
  XBee.begin(9600);
  Serial.begin(9600);
  pinMode(FLEX_PIN1, INPUT);
  pinMode(FLEX_PIN2, INPUT);
  pinMode(FLEX_PIN3, INPUT);
  pinMode(FLEX_PIN4, INPUT);
  pinMode(button, INPUT);
}
void loop() {
int flexADC1 = analogRead(FLEX_PIN1);
float val1 = map(flexADC1, 234, 284, 9, 0); //maps a value between 0 and 18 based on the angle of the flex sensor

int flexADC2 = analogRead(FLEX_PIN2);
float val2 = map(flexADC2, 749, 899, 9, 0);

int flexADC3 = analogRead(FLEX_PIN3);
float val3 = map(flexADC3, 694, 878, 9, 0);

int flexADC4 = analogRead(FLEX_PIN4);
float val4 = map(flexADC4, 629, 789, 9, 0);

/* Serial.println(val1);
  Serial.println(val2);
  Serial.println(val3);
  Serial.println(val4);
  Serial.println();*/
if (digitalRead(button) == HIGH && previous == LOW){
  b++;
  previous = HIGH;
}
if (b%2 == 1){
  Serial.println("motor mode");
  if (val1 <=1 && val2 <=1 && val3 <=1 && val4 <=1){
    XBee.write("s");
    //Serial.println("STOP");
  }
  else if (val1 > 1 && val2 <= 1 && val3<=1 && val4<=1){
    XBee.write("g");
    Serial.println("GO");
  }
  else if (val4>1 && val1 <=1 && val2 <=1 && val3 <=1 ){
    XBee.write("l");
    Serial.println("TURN LEFT");
  }
  else if (val3>1 && val1 <=1 && val2 <=1 && val4 <=1) {
    XBee.write("r");
    Serial.println("TURN RIGHT");
  }
  else if (val2>1 && val1 <=1 && val3<=1 && val4 <=1){
    XBee.write("b");
    Serial.println("BACKWARDS");
  }
  previous = LOW;
}
}

```

```
if (b%2 == 0){
  Serial.println("claw mode");
  previous = LOW;
  if (val1 <=1 && val2 <=1 && val3 <=1 && val4 <=1){
    XBee.
write("m");
  }
  if (val1 > 1 && val2 <= 1 && val3<=1 && val4<=1){
    XBee.write("o");
    Serial.println("OPEN CLAW");
  }
  else if (val4>1 && val1 <=1 && val2 <=1 && val3 <=1 ){
    XBee.write("t");
    Serial.println("TILT");
  }
  else if (val3>1 && val1 <=1 && val2 <=1 && val4 <=1) {
    XBee.write("e");
    Serial.println("RESET");
  }
  else if (val2>1 && val1 <=1 && val3<=1 && val4 <=1){
    XBee.write("c");
    Serial.println("CLOSE CLAW");
  }
  previous = LOW;
}
}
```