Joystick Shield

Introduction

The Joystick Shield enable your Arduino with a joystick! The shield sits on top of your Arduino and turns it into a simple controller. Five momentary push buttons (4+ joystick select button) and a two-axis thumb joystick gives your Arduino functionality on the level of old Nintendo controllers.
This shield is a great piece of uer interface board, it is perfect for gaming and navigating through menu quickly. It has headers for LCDs and RF modules , to communicating and displays easily.

Application Ideas

- Joystick Game
- Greedy Freak

Pin definition and Rating

KEY Button Define

Pin	#	KEY
D0(RX)	0	NULL
D1(TX)	1	NULL
D2	2	KEY A
D3	3	KEY B
D4	4	KEY C
D5	5	KEY D
D6	6	KEY E
D7	7	KEY F
D8	8	KEY Down

Nokoia 5110 LCD

Pin	#	KEY
D9	9	SCLK
D10	10	CSN

D11	11	D/C
D12	12	RST
D13	13	SCE

nRF24L01

Pin	#	KEY
D9	9	SCE
D10	10	CSN
D11	11	SCK
D12	12	MOSI
D13	13	MISO

Usage

Hardware Installation

Plug JoyStick shield onto the Arduino/Crowduino. Connect the board to PC using USB cable.

Programming

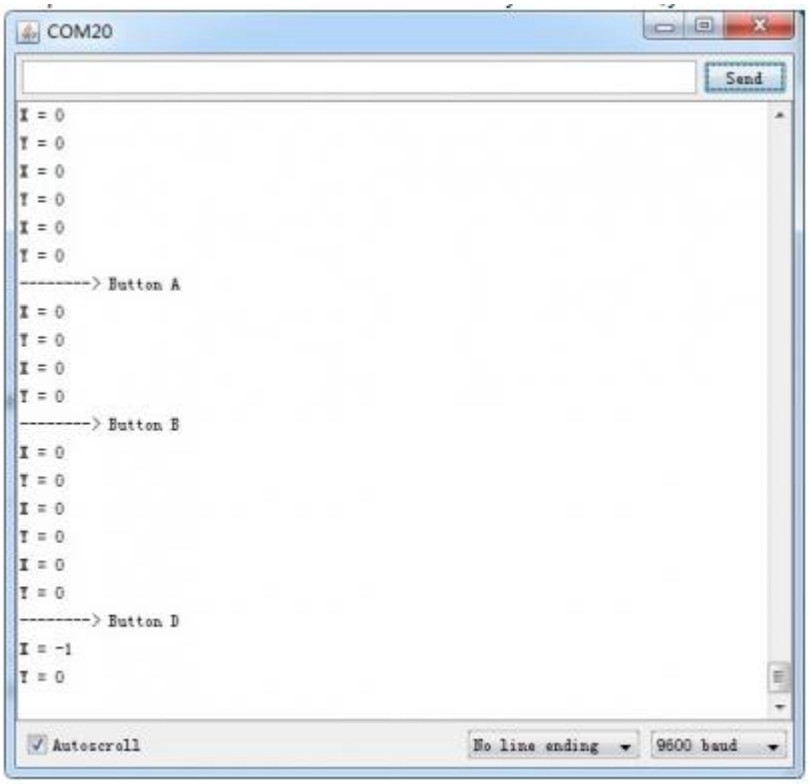
1.Copy the demo code to your sketch, then upload to Arduino or Crowduino board.

```
int FirstShotX , FirstShotY;
void setup()
{
    for(int i=2; i<9; i++)
    {
    pinMode(i, INPUT);
    digitalWrite(i, 1);
    }
```

```
    Serial.begin(9600);
    FirstShotX = 0;
    FirstShotY = 0;
}
void loop()
{
    int i, someInt, flag = 0;
    for(i=2; i<9; i++)
    {
        someInt = digitalRead(i);
        if(someInt == 0)
        {
            flag =1;
            break;
        }
    }
    if(flag == 1)
    {
        switch(i)
        {
            case 2: Serial.println("--------> Button A"); break;
            case 3: Serial.println("--------> Button B"); break;
            case 4: Serial.println("--------> Button C"); break;
            case 5: Serial.println("--------> Button D"); break;
            case 6: Serial.println("--------> Button E"); break;
            case 7: Serial.println("--------> Button F"); break;
            case 8: Serial.println("--------> Button KEY"); break;
            default: break;
        }
        flag=0;
    }
    int sensorValue = analogRead(A0);
    if(FirstShotX == 0)
    {
        FirstShotX = sensorValue;
        Serial.print("FirstShotX = ");
        Serial.println(FirstShotX);
    }
    Serial.print("X = ");
    Serial.println(sensorValue - FirstShotX);
    sensorValue = analogRead(A1);
    if(FirstShotY == 0)
    {
        FirstShotY = sensorValue;
```

```
            Serial.print("FirstShotY = ");
            Serial.println(FirstShotY);
        }
        Serial.print("Y = ");
        Serial.println(sensorValue - FirstShotY);
        delay(200);
}
```

2.Open the serial monitor. Control the JoyStich Shield,you should see some data from you control.



Resources

http://www.elecfreaks.com/wiki/index.php?title=Joystick_Shield
http://www.elecfreaks.com/1999.html