# 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

```
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;
```

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