

Electrical devices such as lamps, fans, heaters, water pumps, etc. consume large amounts of power. Relays are high-power electrical switches that allow controlling such electrical devices (turn on/off). On the other side, relays can be controlled by low current signal (microcontrollers digital outputs).

Generally speaking a relay has 3 pins that can be connected to the electrical device as a switch: C (Common pin), NC (Normally closed), and NO (Normally open).

The pin naming on FEZ Relay is a bit different.

FEZ Relay	Description
OUT1	Normally open pin (NO).
OUT2	Normally closed pin (NC)
NC	Not connected to any thing, you can ignore it. This is not the same NC (Normally Closed pin)
IN	This is the common pin (C)

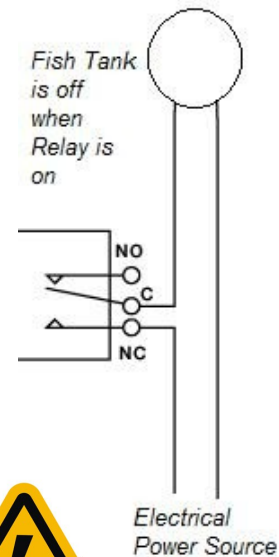
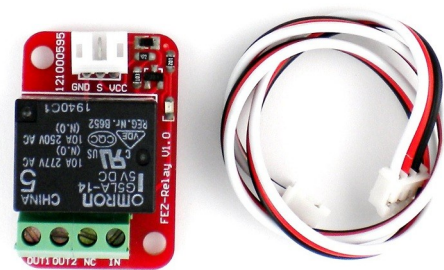
This is the logic that helps define the relay switch status.

The signal is Low (Relay is off)	The signal is High (Relay is on)
IN and OUT1 are <b>not</b> shorted	IN and OUT1 are shorted
IN and OUT2 are shorted	IN and OUT2 are <b>not</b> shorted

Use any of the available FEZ pins to control this relay. Setting the digital pin high or low will turn relay on or off.

This relay is rated 10A 250V. **Be very careful** when connecting the relay to a high power source. **Use at your own risk!**

**Important Warning:** The connected electrical device works on dangerously high voltage and high current that might cause **death**. Thus connecting this device with this relay board requires professional skills and tools and must be dealt with cautiously. **Relay Board is not a toy and should not be used by children.** **GHI Electronics' LLC is not responsible for any damage that might be caused using this board.**



**Provided Driver Example Code:**

User should add **FEZ\_Components\_Relay.cs** to Visual C# project to use the example below. **FEZ tutorial Document** shows how to create projects and add components drivers.

(Both files are available on [www.tinyclr.com](http://www.tinyclr.com))

**Code snippet:**

```
using System;
using Microsoft.SPOT;
using System.Threading;
using GHIElectronics.NETMF.FEZ;

public class Program
{
    public static void Main()
    {
        // Create Relay object assigned to a FEZ Relay Board
        // Connected Relay Board Di4
        FEZ_Components.Relay myRelay = new FEZ_Components.Relay(FEZ_Pin.Digital.Di4);
        myRelay.On();
        Thread.Sleep(2000);
        myRelay.Off();
    }
}
```

