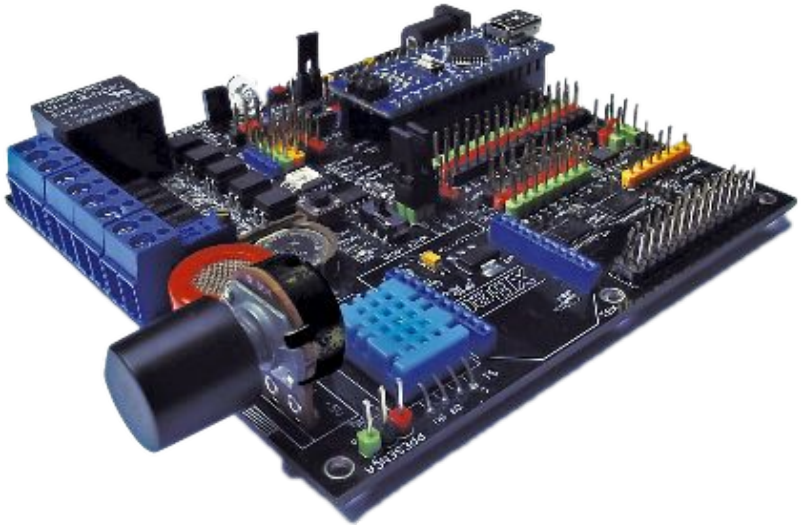

Globalcode

Using Relay for controlling an outlet



Files for this class

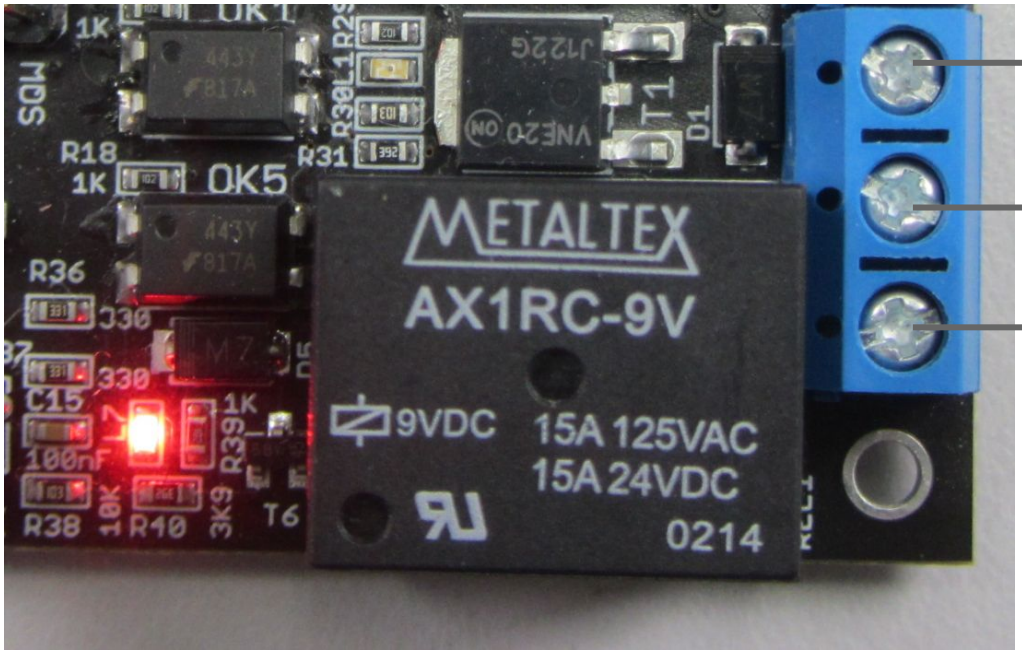
https://portalaluno.toolscloud.net/redmine/projects/iotsurfboard/files

- [ ] Presentation: IoT_Surfing_Class_8_en.pdf

Using Onboard relay

- Relay is an electromagnetic switch that can be controlled digitally
- Can control AC/DC loads (outlets and batteries for example)
- To make it simple: a relay turn on and off “a wire”
- The onboard relay is ready to use and can control 5v DC, 12v DC, 110v AC, 220v AC loads
- Current limit is 10 amps

NC - Common- NO



NC
Normally closed

COMMON

NO
Normally open

NO: Normally open

- It means that the contact between the connected wires are normally disconnected:

  Relay off = equipment off

  relay ON = equipment On

NC: Normally closed

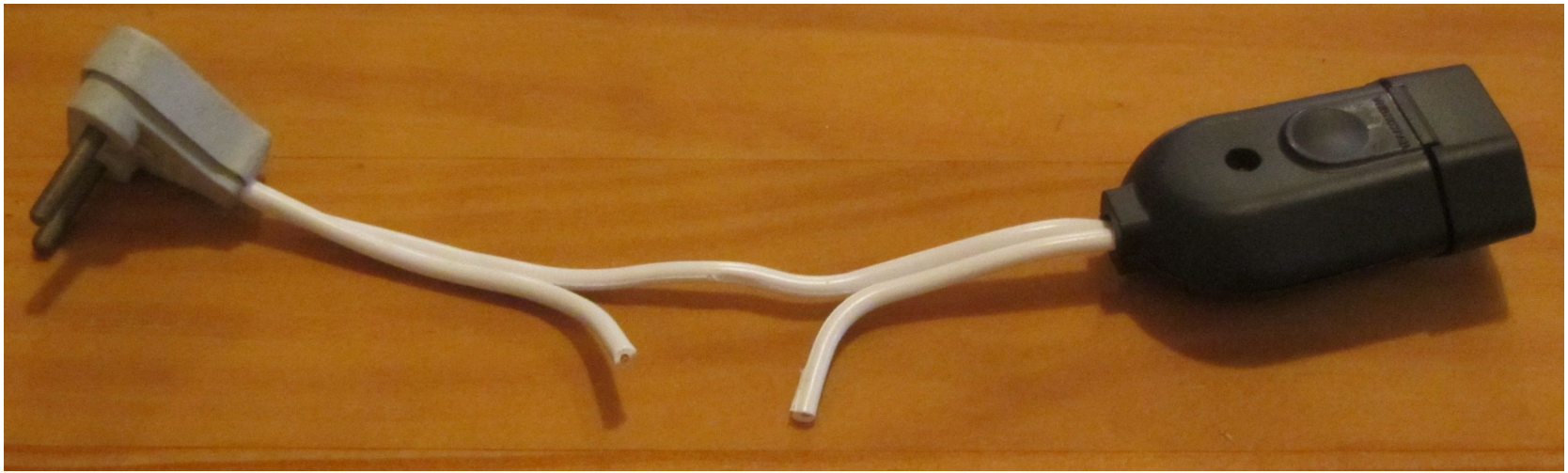
- Contact between the connected wires are normally connected

  Relay OFF = equipment ON

  Relay ON = equipment OFF

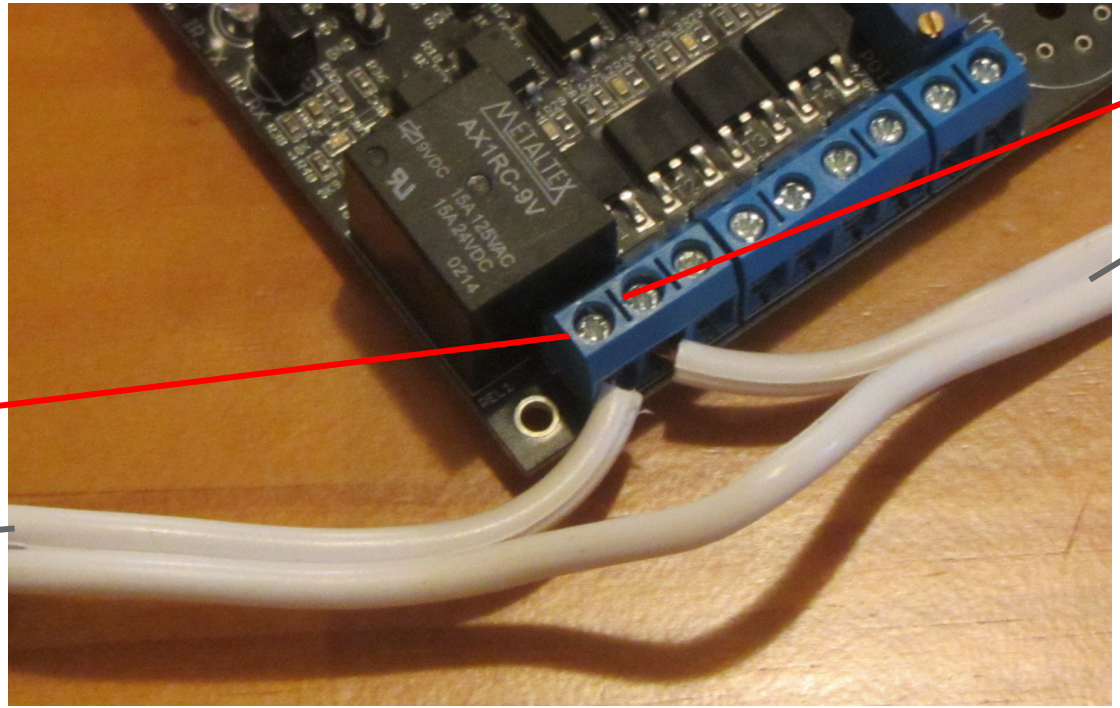
Use a simple extension cord

Cut one of the phases / wires



Peel the wires (40mm)

Connect the IoT Surfboard



Common

Connect the outlet

Normally Open

Connect the Equipment

Example of use

```
board.relay(board.alcohol()>400 ? 1 : 0);
```

LIVE DEMO

Summary

- The onboard relay is ready to use and can control 5V DC, 12V DC, 110V AC, 220V AC loads
- We must respect the 10 amps limit
- We can choose whether we want to connect the relay to turn on or off the equipment!

IoT Surfboard + Relay = CAUTION It can EXPLODE!

<KABOOMFEELINGS>