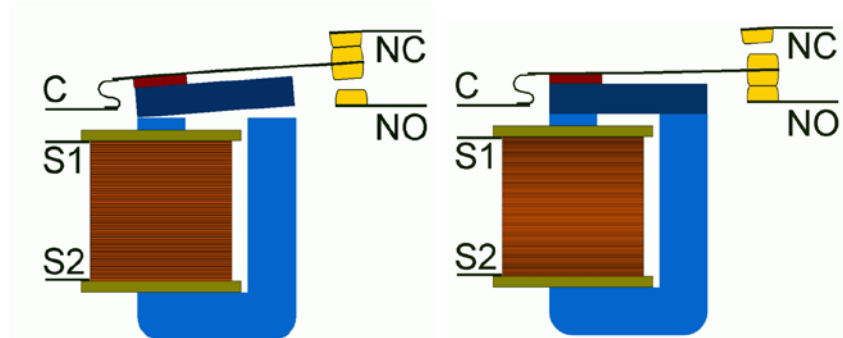


O-POWER RELAY / CONTACTOR

Required knowledge Ohm's Law, Relay or contactor operation



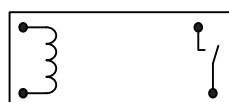
If you send enough current through the coil of a relay, the magnetic energy will be large enough to close a mechanical switch. With a relative small drive current in the coil, you can now switch much larger currents and loads. The disadvantage of a relay is the limited switching speed. Relays are available in many different types.



Be Aware: the power circuit of the relay can be anything. AC or DC, 10V, 230V or even 1000V. Be careful and be aware that voltages over 50V can be very dangerous and should be handled with the proper knowledge.

Relay	OJE-SS-105HM – Farnell 1891661 or a relay of your own choice
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Determine this info from your relay:

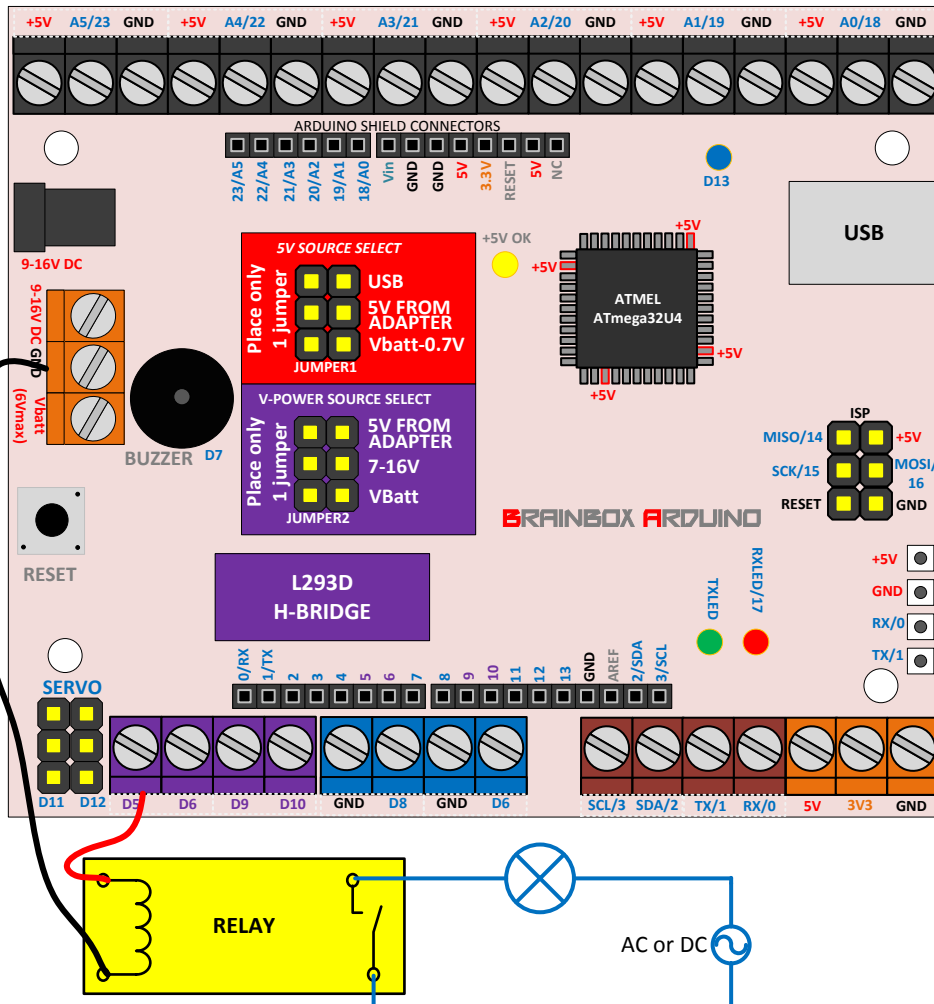


- Pin layout : Measure between which pins the coil is (usually 10+ Ohm) and between which pins the switch is located (0 Ohm for a closed switch and infinite Ohm for an open contact)
- Coil voltage : What voltage does the coil of the relay need to activate?
- Coil current : What current will flow through the coil when it is activated. This may not exceed the 600mA max of our L293D. Else a Mosfet can be used.

Put the adapter and the jumper in the correct mode.

Relay voltage	Adapter voltage	Jumper 2 position
5V	9V of 12V, ...	5V from adapter
9V	9V	7-16V
12V	12V	7-16V

Connect the Relay between one of the 4 power outputs and the gnd of the Brainbox. We can connect up to 4 Relays this way.



CODE EXAMPLE: 'O-600'

Use the programming instructions: 'O-600' and make pin D5 high when you want to activate the relay.

CODE EXAMPLE: 'O-POWER'

When the coil current of the relay exceeds 600mA, use a Mosfet to drive the Relay (O-POWER)