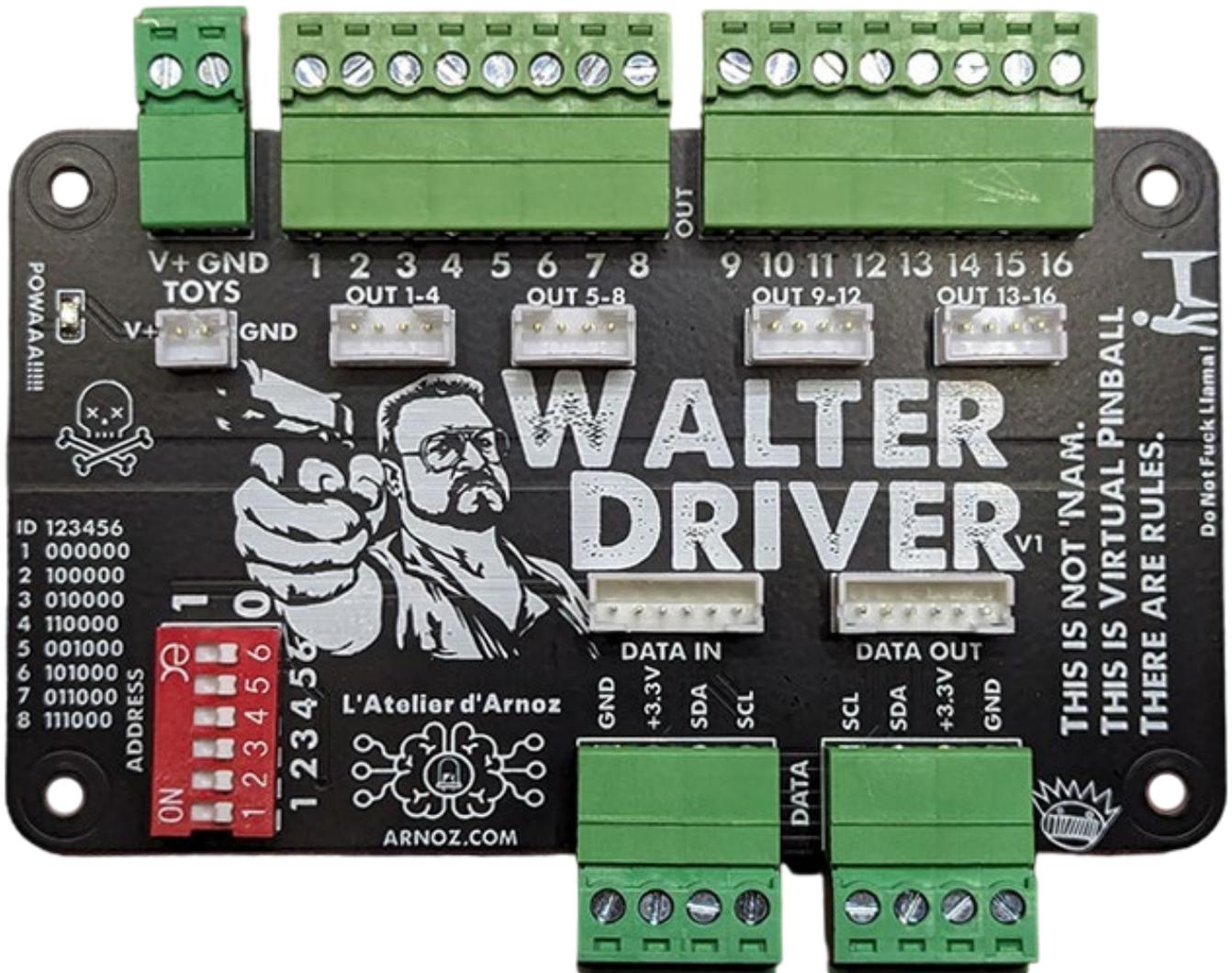


# Walter Driver v1 User Guide



The WALTER DRIVER allows to connect and control 16 PWM toys. This board connects to the Dude's Cab Board.

You can add up to 8 WALTER to a Dude's Cab to control a total of 128 DOF PWM toys.

Each WALTER DRIVER unique address can be set by the dip switches

This board can connect via wires on the terminal screws or by using the JST-PH ribbon cable.

**NEVER USE** the WALTER DRIVER alone. It must be connected to one of the following boards ( MOS8, MOS4, Minimos4 or MOSLIGHT )

This board needs to be connected to a 12V power.

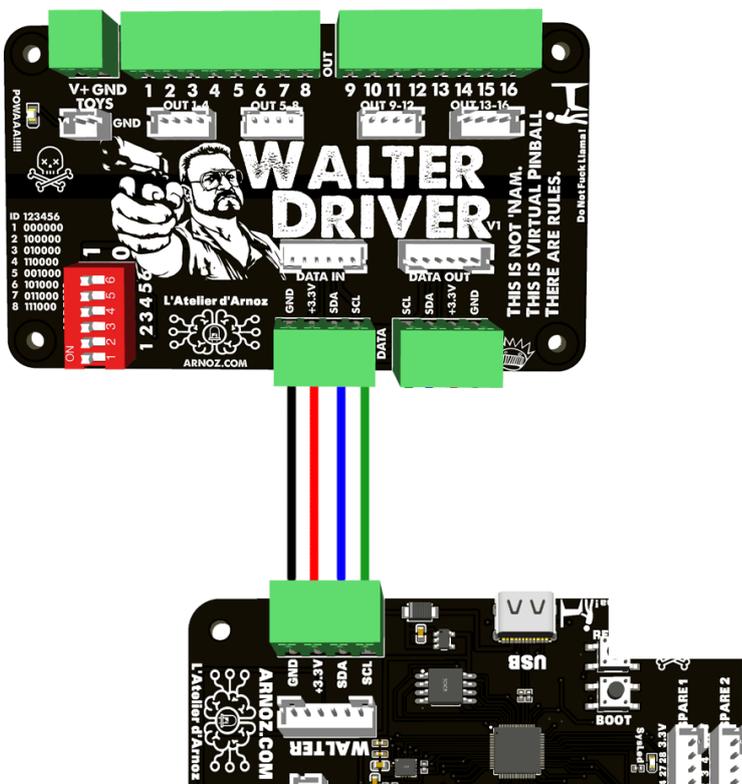
The system can only control DC voltage toys, it does not support AC voltages.

**WARNING ! This board is not compatible with the KL25Z or the Pinscape software**

# A - CONNECTION

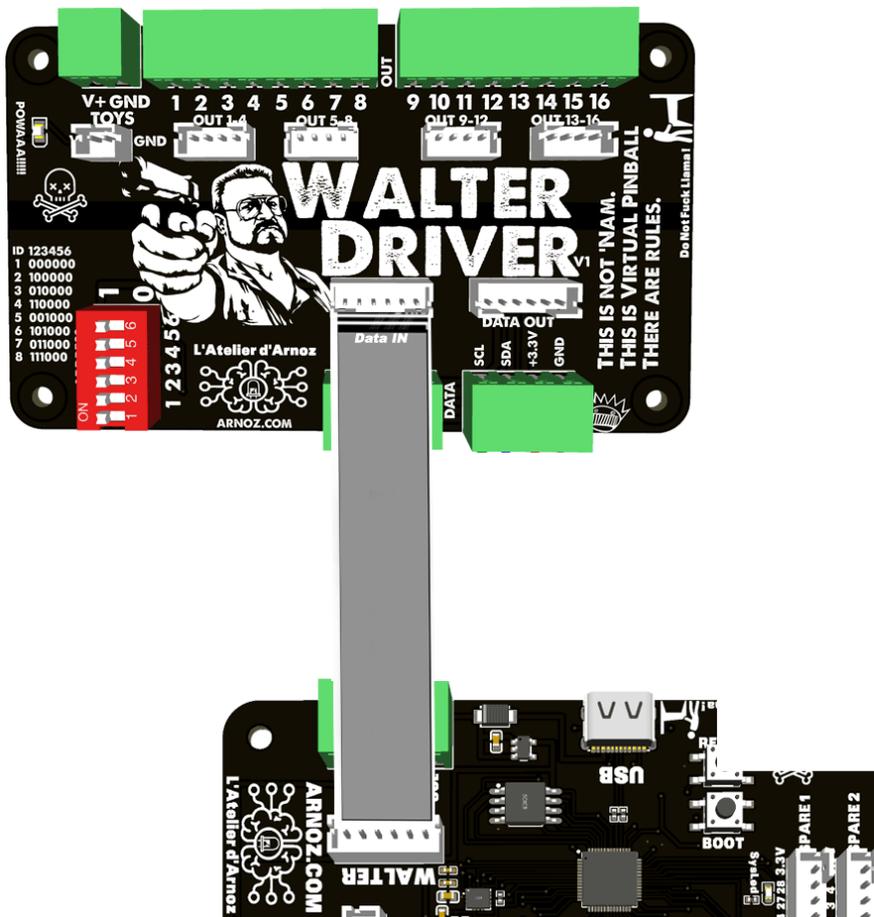
## 1-WIRING TO THE DUDE'S CAB

To function , the WALTER DRIVER must be connected to the Dude's Cab. connect 4 wires from the DATA IN Terminal screw connectors to the WALTER DRIVER to the Dude's Cab 4 Terminal screw connectors Labelled WALTER. ( see illustration 1 below )



*Illustration 1: Connecting Walter Driver to Dude's Cab board using the terminal screws*

A 2<sup>nd</sup> method to connect both boards together is by using the provided 6 pin cables from the Walter JST 6 Pins Data In to the JST 6 pin port labelled WALTER on the Dude's Cab. ( See illustration 2 below )



*Illustration 2* Connecting Walter Driver to Dude's Cab board using the JST 4 pins ribbon cable

### **JST Ribbon cable requirements connection :**

There are 16 ports on the WALTER

- JST 6 pin ribbon cable to connect to the Dude's Cab
- JST 2 pin ribbon cable to power the Walter. This connects to the JST 2 pin connector on the Dude's Cab
- JST 4 pin X 4 to connect the WALTER ports to the Dude's Cab ports.

To add additional WALTER cards, you need to connect the JST 6 pin on the 2<sup>nd</sup> WALTER DRIVER DATA IN to the 1<sup>st</sup> WALTER DRIVER DATA OUT. Or you can use wires from the terminal screw. ( See Illustration 3 )

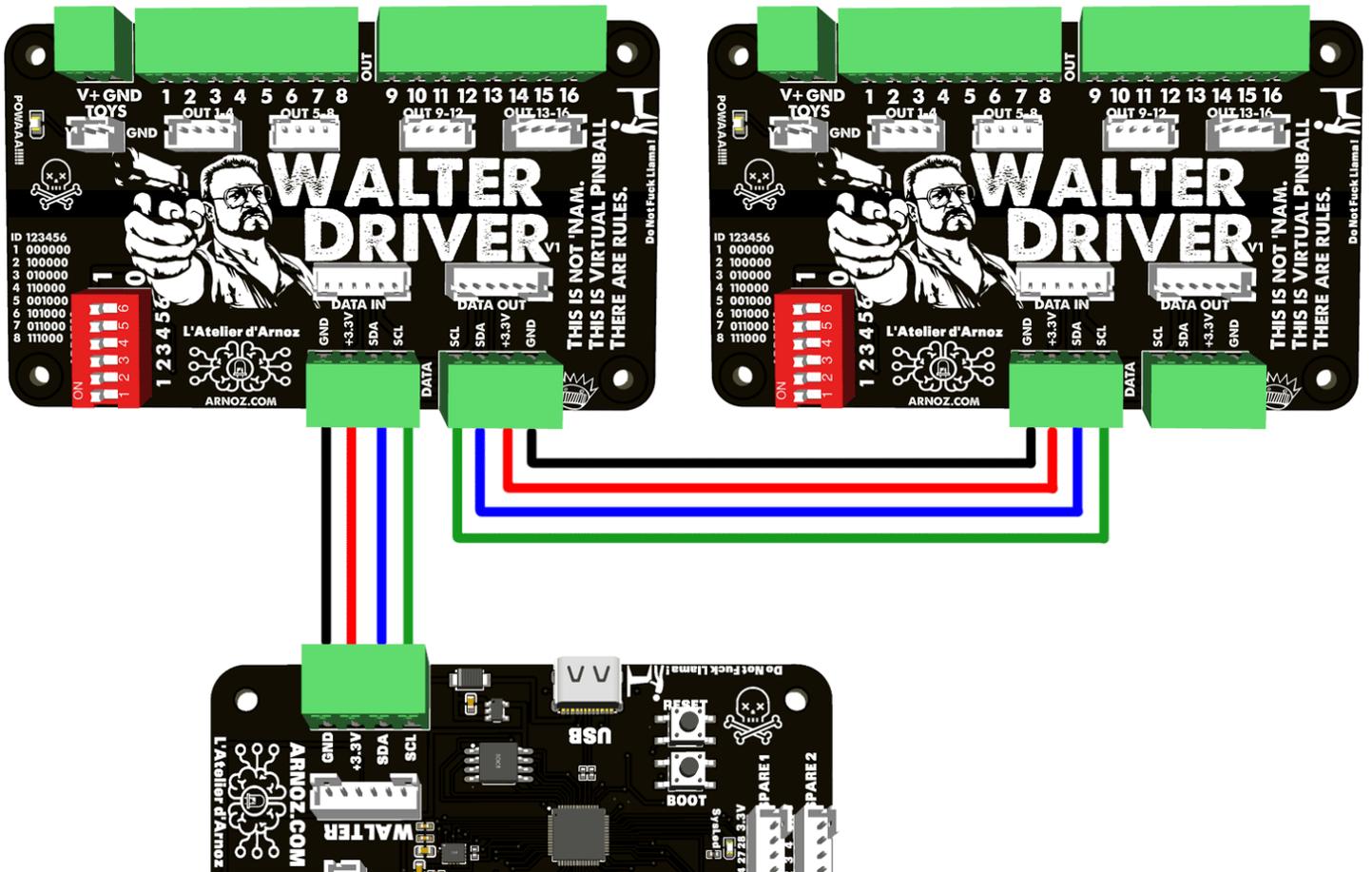


Illustration 3 Connection additional WALTER DRIVER. Terminal screw connection

## 2-CONNECTING MOS BOARDS

To add DOF toys, you will need to use other extension cards that will fit your needs.  
MOS8, MOS4, MOSLIGHT ou Minimos

The MOS8 et MOS4 Have 8 & 4 outputs allowing you to control up to 8 toys 8 Amps.

The Minimos4 board has 4 outputs allowing you to control up to 4 toys 1 Amp.

The MOSLIGHT has 16 outputs allowing to control up to 16 toys 1 Amp. This board is optimized for 5 Flashers RGB and strobe.

A Single WALTER DRIVER can drive for example 2 MOS 8 or 4 MOS, 4 MiniMOS4 or a MOSLIGHT. You can mix them up.

The MOS boards can drive toys from 0 to 48 volts. The cards also support different voltages.

The MOS board requires 12V to power it up.

You must use a dedicated power supply to power up the boards, don't use your computer power supply.

## Wiring Specs :

The 12V + to power up the boards must be at least AWG28

The GND connecting to the WALTER DRIVER must be at least AWG26

Don't hesitate to use a bigger gauge wire for your GND ( 18-16-14 AWG )

The wires connecting the WALTER and the MOS boards must have a minimum of AWG28

( This is a signal wire )

The wires between the MOS and your Toys will require the proper wire gauge to support the voltage of your toy.

If you are using different voltages such as 5,12,24 volts, don't forget to connect the common GND ( Also called Neutral ) of your power supply together.

You can power up the WALTER DRIVER using the 2 pin JST cable and connecting it to one of the MOS 2 pin board or using the Power terminal screw connector.

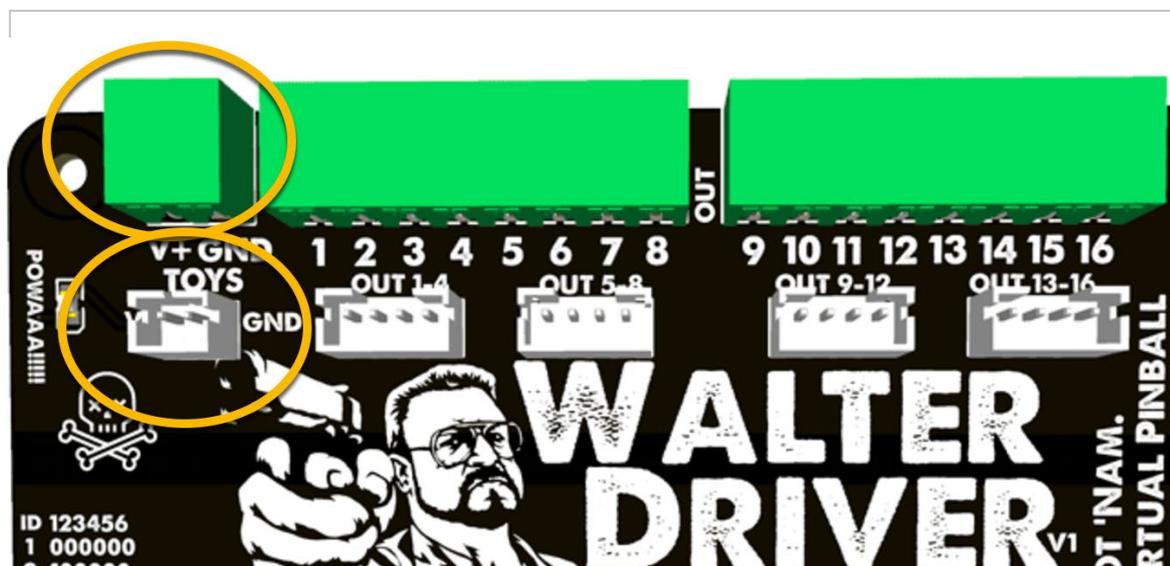


Illustration 4 Powering up the Water Driver

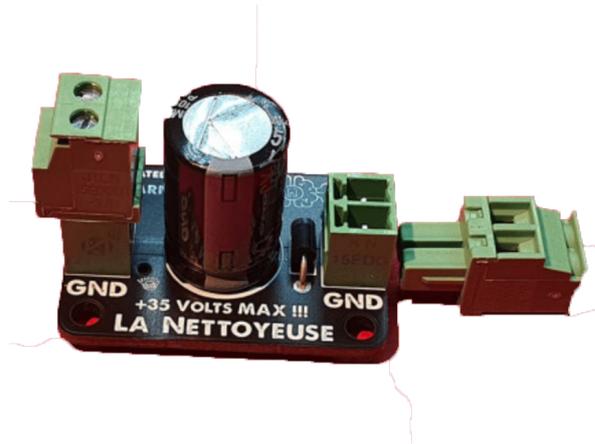
## WARNING

When using a toy that has a magnetic field such as a Solenoid, Motors, Contactors, you must install a Diode in your circuit. Failure to do it can inflict physical damage to the Boards.

Install a Diode or Arnoz's La Nettoyeuse Board near your toy.

( The white bar of the diode connects to the V+ side and the other side of the diode connects to the negative of your toy. )

If a Motor creates interference with your setting, you can install a 1000 $\mu$ F capacitor or a Nettoyuse.



*Illustration 5*

*Board allowing you to reduce interference in your circuit*

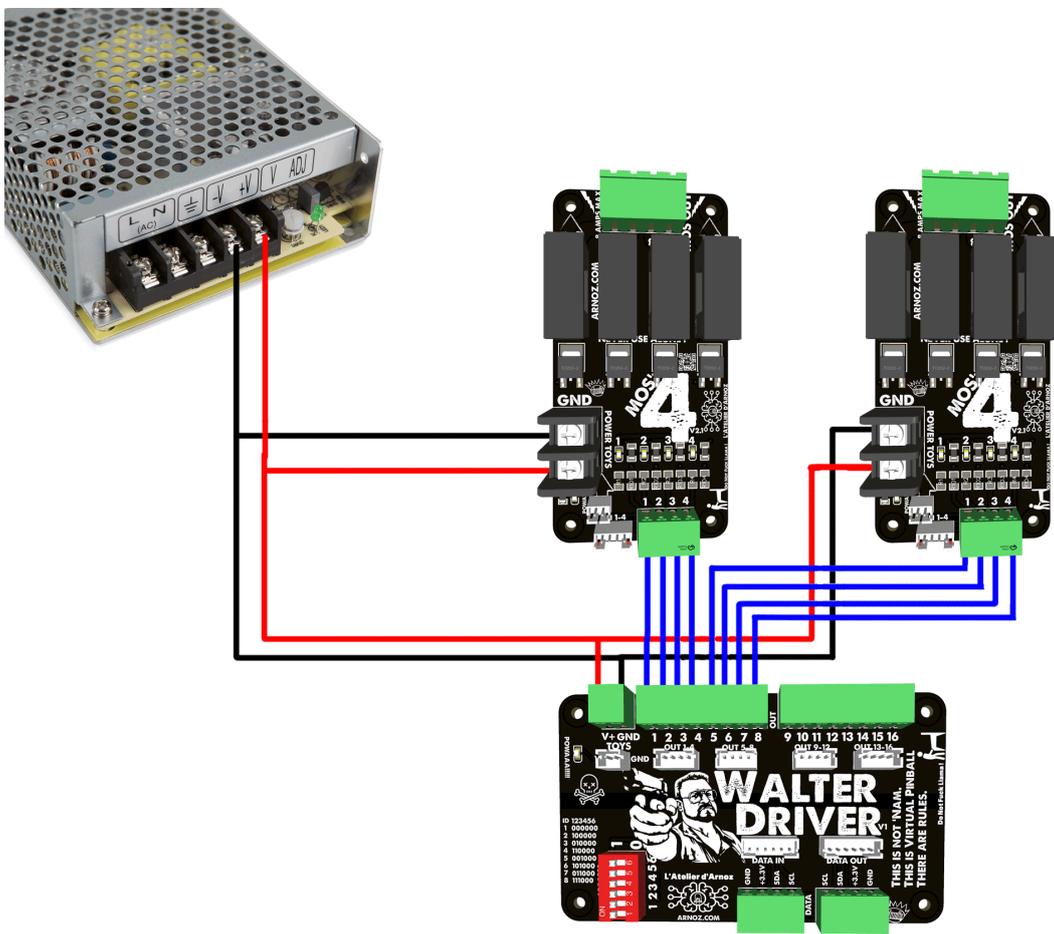


Illustration 6: Connecting 2 MOS 4 to the WALTER

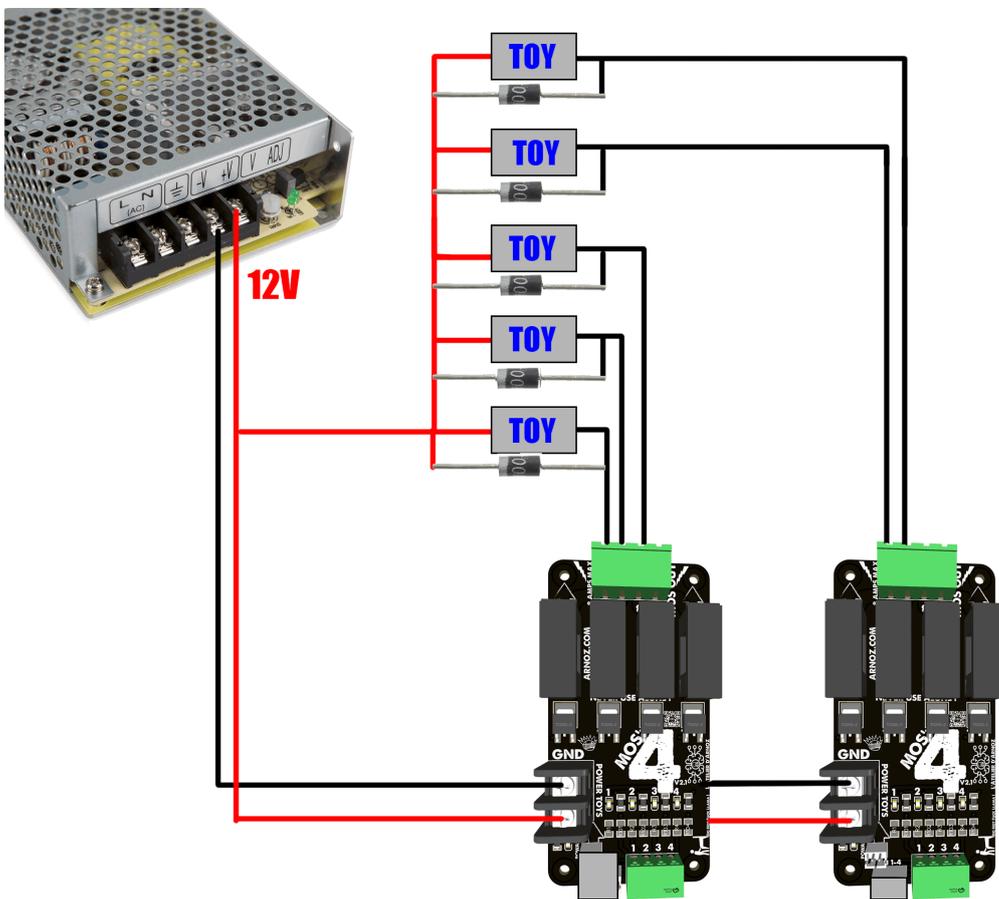


Illustration 7: Connecting your toys to the MOS 4 boards

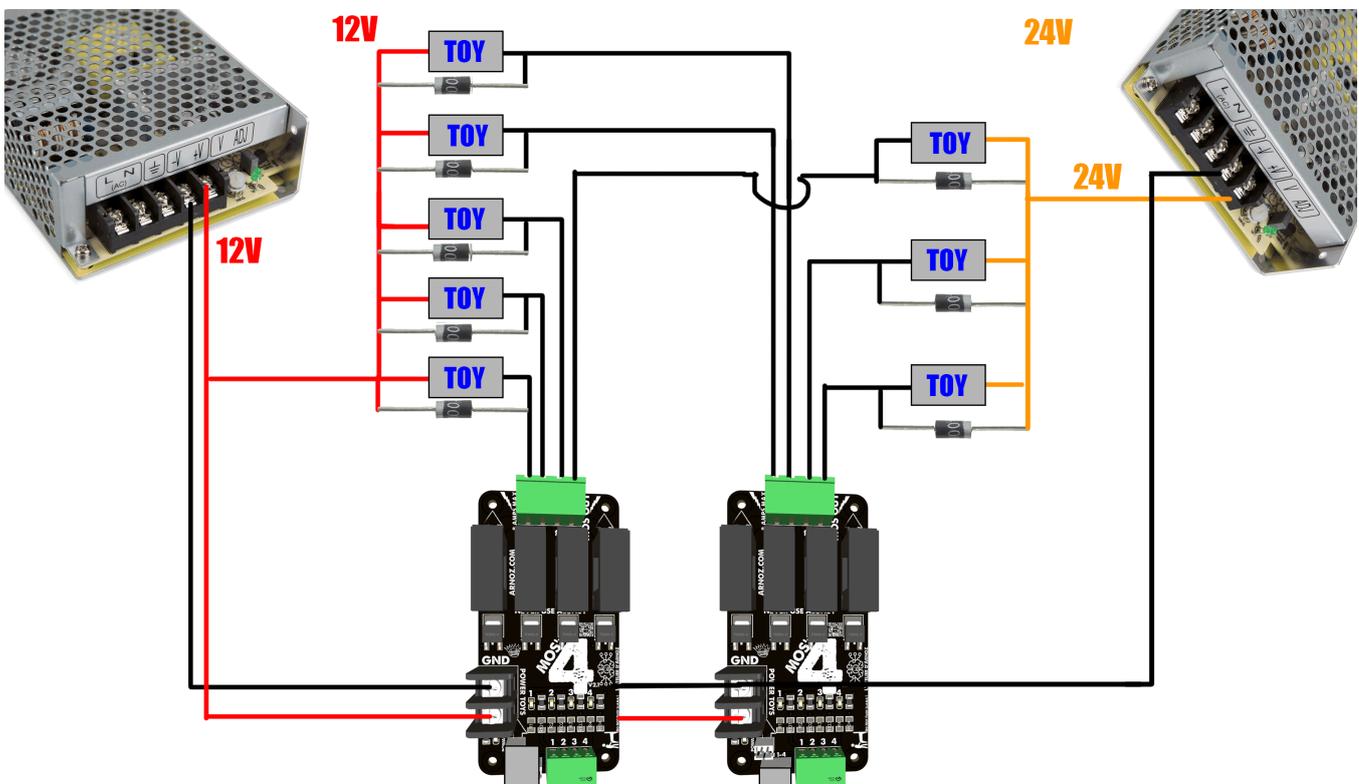


Illustration 8: 12V and 24 Volts toys connected to the MOS 4

### 3-WALTER DIP SWITCH ID

In order for the Dude's Cab to Identify the WALTER , the ID on the WALTER must be set using the DIP SWITCH.

There is a total of 8 available addresses

If the switch is set to OFF it is 0 , if set to ON than it is 1. ( The ID is set in Binary 1 and 0 )

Only the switches 1-2-3 will be used. All other 4-5-6 will always be set to 0

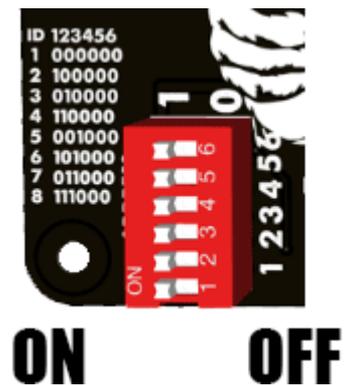
Look at the chart below to find out what ID to set depending on how many WALTER DRIVER you have in your setup

1 WALTER Everything OFF (0)

2 WALTER switch 1 set ON (1)

Voici les adresses et leur configuration :

ADDRESS	1	2	3	4	5	6
1	0	0	0	0	0	0
2	1	0	0	0	0	0
3	0	1	0	0	0	0
4	1	1	0	0	0	0
5	0	0	1	0	0	0
6	1	0	1	0	0	0
7	0	1	1	0	0	0
8	1	1	1	0	0	0



## B – Configuration

See the Dude's Cab user manual to read about the WALTER DRIVER configuration using the CONFIGURATOR.