

**User's manual**  
for "DRCA" accessory for  
"Mini-Monster" modules.

revision 3.0 and N-series

**V 1.1**

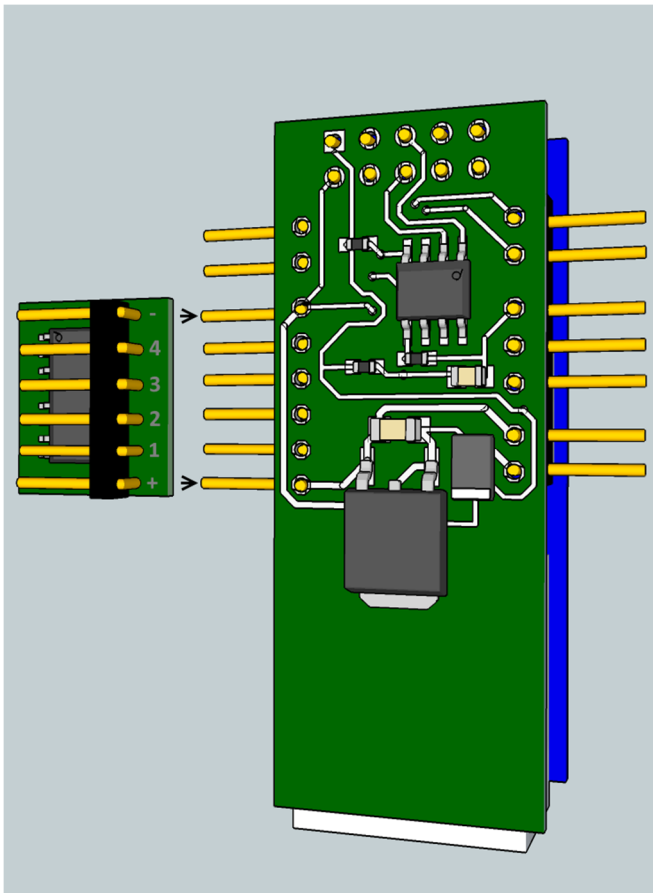
English

## Description:

DRCA (Direct Relay Connecting Adaptor) is a small adaptor which allows direct relay connection (up to 4 relays per N-series module). This adaptor is powered by ULN2003A Darlington transistor array, which also has integrated protection diode.

## Installing:

Orient the adaptor in that way, so "male" connector and "1234" mark will be on the face side of PCB as shown at the picture below and plug in adaptor firmly, PCB of the adaptor must be on top of Mini-Monster's PCB.



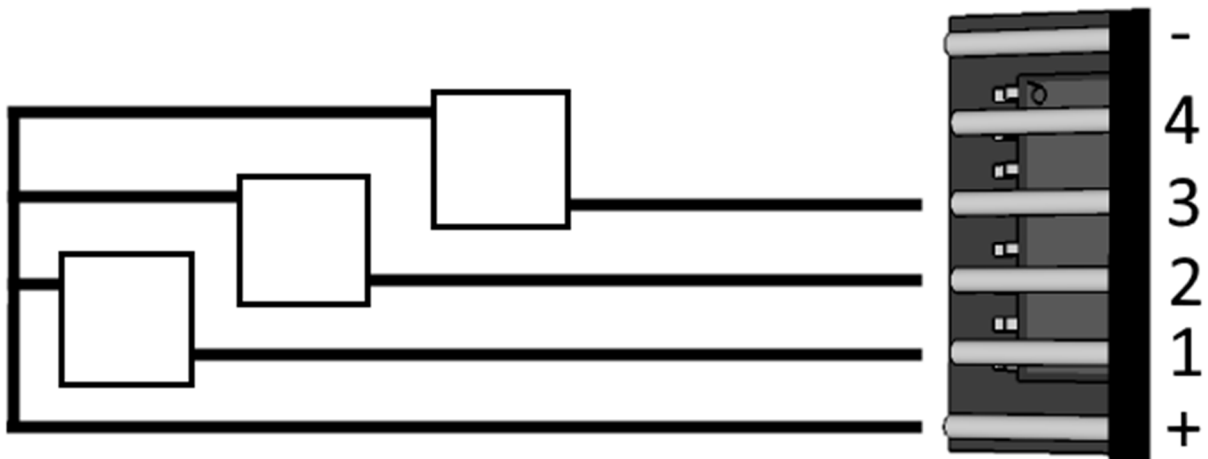
*"+" pin of the adaptor must be aligned with the same pin at "Mini-Monster". Other connection is strongly prohibited.*

## Connecting:

Make all the connections with power supply turned OFF!

When you enable Mini-Monster's output (turn ON), adaptor's output with corresponding number becomes pulled to the ground with transistor.

So you must connect the load between "+" and one of the four outputs like shown:



**Important notices:**

*You can connect other loads which comply with adaptor's and Mini-Monster's specifications.*

*Relay's voltage must be same with Mini-Monster's power supply voltage. If you want to use another power supply for the relay, the grounds of this supplies must be common and the separate protection diode must be used for inductive loads.*

*First (1) output can hold 350mA. 2,3,4 outputs - 700mA each. Maximum summary load is 1.5A.*

*You may consider to check ULN2003A drop down voltage when connecting such loads as LEDs.*

*Also you can always connect "relay modules" with built in transistors, when you need to use both types simultaneously, however this modules must be "low-level trigger" type only.*