

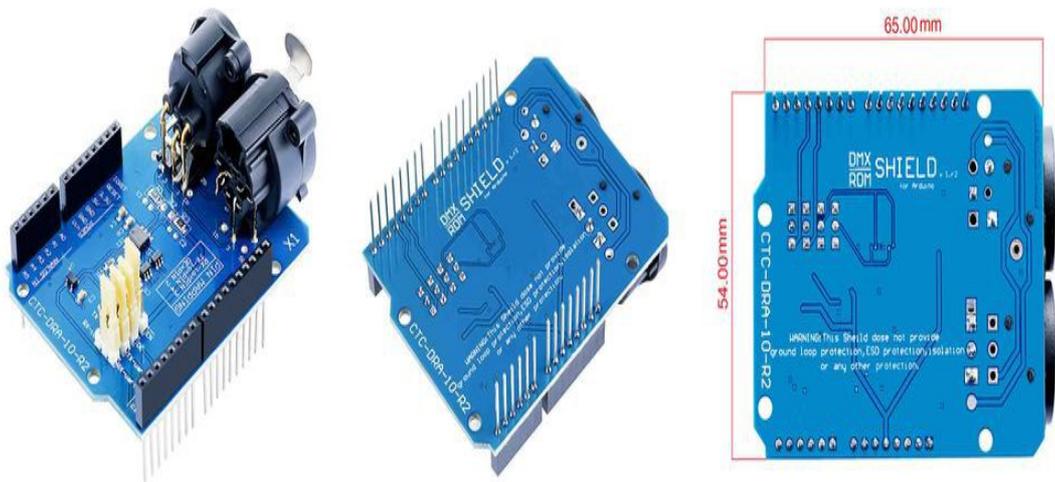
DMX Shield for Arduino

CTC-DRA-10-R2

Description

The Arduino DMX shield is an add-on (or "shield") for the Arduino. It is an easy way to use the Arduino as a DMX-Master device, just by adding the DMX-shield on the top of the Arduino.

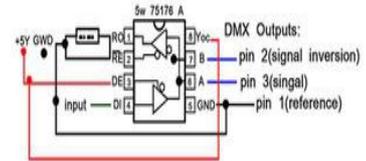
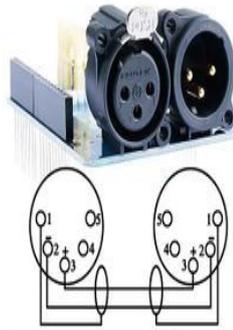
This arduino DMX / RDM Shield is a low cost high quality solution that allows you to connect your Arduino driven artwork into DMX512 networks. The shield is populated with high quality NEUTRIK XLR 3pin Connectors (1x male and 1x female). The MAX485 based shield can be used as DMX Master, Slave and as RDM transponder. A unique RDM device id will be handed out from out range to you as well, this will make your device worldwide unique.



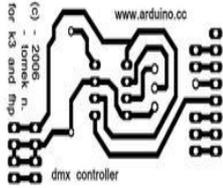
The following settings are configurable via the onboard jumpers:

- Send data via TX or Digital pin 4
- Receive data via RX or Digital pin 3
- Hardware slave mode or Software Controlled Slave/Master via Digital pin 2 (Required for RDM)
- Enable / Disable shield

In case you have the shield configured to use the RX and TX pins you have to disable the shield before you can upload your new sketch onto the Arduino board. This jumper allows you to disable the shield without disconnecting it from the Arduino board which saves time.



The DMX-shield is an add-on (or "shield") for the Arduino. It is an easy way to use the Arduino as a DMX-Master device (transmitter), just by adding the DMX-shield on the top of the Arduino. This shield is a simple circuit based around a driver chip (MAX-485 or SN 75176). The Driver Block Outputs the 3 Pins are needed for sending DMX (DMX-Pin1 -> Reference (GND); DMX-Pin2 -> Signal inversion (cold); DMX-Pin3 -> Signal (hot)). Furthermore is the Driver Block taking care of changing the Arduino signal Voltage (0V / 5V,) into the DMX signal Voltage (-2.5V / +2.5V, according to RS485). Resistor is 100 Ohm.



3pin

- pin1=signal reference
- pin2=DMX521 Signal inversion "-"
- pin3=DMX512 Data "+"

5pin

- pin1=signal reference
- pin2=signal inversion "-"
- pin3=signal "+"
- pin4=optional(e.g.acknowledgment)
- pin5=optional(e.g.acknowledgment)

Features

- Specially designed for Arduino master device.
- Can very easily access the Arduino device to DMX512 network.
- Do not need to buy expensive equipment for loading protocol change.
- Equipped with high-quality NEUTRIK 3-pin plug.
- Ensure a reliable connection with other music devices. @CQRobot

Test Case

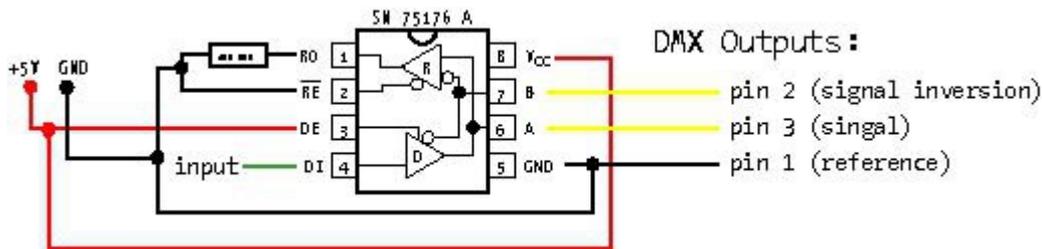


Quelle :

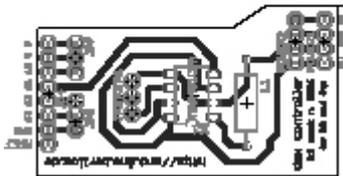
http://www.cqrobot.wiki/index.php/DMX_Shield_for_Arduino_SKU:_AngelDFR0260US

DMX-Library : <https://sourceforge.net/projects/dmxlibraryforar/files/>

DMX-shields



The DMX-shield is an add-on (or "shield") for the Arduino. It is an easy way to use the Arduino as a DMX-Master device (transmitter), just by adding the DMX-shield on the top of the Arduino. This shield is a simple circuit based around a driver chip (MAX-485 or SN 75176). The Driver Block Outputs the 3 Pins are needed for sending DMX (DMX-Pin1 -> Reference (GND); DMX-Pin2 -> Signal inversion (cold); DMX-Pin3 -> Signal (hot)). Furthermore is the Driver Block taking care of changing the Arduino signal Voltage (0V / 5V,) into the DMX signal Voltage (-2,5V / +2,5V, according to RS485). Resistor is 100 Ohm.



[-stencil for etching](#)

[-eagle file](#)

Other shields:

- [DMX shield](#) by Raphael Perret.
- [DMX Shield](#) that supports DMX and RDM and includes voltage isolation for protection.
- [Pre-built DMX shield](#) for purchasing
- [DMX shield](#) that supports DMX over RF
- [Pre-built 2.5kV Isolated \(and non Isolated\) DMX RDM shields](#) for purchasing

DMX Library and examples

If you want to quickly start developing your DMX project you can take a look at the [Conceptinetics DMX Library](#) or the [DMXSerial library](#). These libraries can be used to easily develop your DMX project. They include examples for sketching a DMX Controller (master), DMX device (slave) or an RDM device (slave with bi-directional data transfer).

DMX connectors

Which connectors and how to connect them?

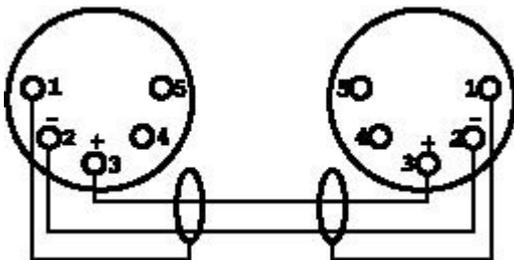
DMX controlled equipment can come with either 3 or 5 pin depending on the design of the equipment. Lower end equipment tends to use 3 pin XLR connectors where higher end equipment tends to use the 5 pin design. The connector you use should reflect that of the equipment you are using, however adapters are available. The 5 pin design is specified in the DMX spec as a way to prevent DMX from being plugged into audio equipment, pins 4 and 5 are primarily left unused, but some manufacturers have begun to implement dimmer feedback via both proprietary and the RDM specification.

3 pin

- Pin 1 = signal reference
- Pin 2 = DMX512 Signal inversion = " - "
- Pin 3 = DMX512 Data = " + "

5 pin

- Pin 1 = signal reference
- Pin 2 = signal inversion = " - "
- Pin 3 = signal = " + "
- Pin 4 = optional (e.g. acknowledgment)
- Pin 5 = optional (e.g. acknowledgment)



DMX Library and Wiki Page : <https://sourceforge.net/projects/dmxlibraryforar/>

User Manual : http://www.cqrobot.wiki/images/1/14/DMX_Shield_User_manual.pdf

DMX Shield auf Github :

<https://gist.github.com/paolocavagnolo/670e3505fac42b58d51b24201c4dbbf4>