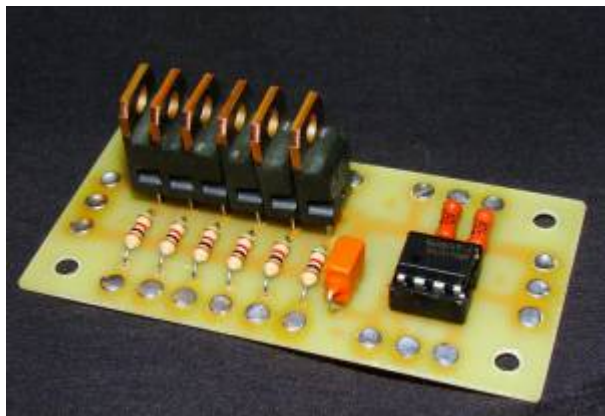
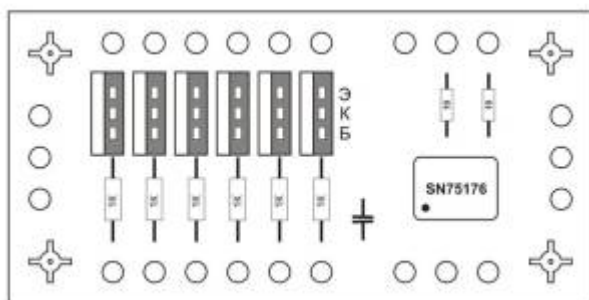


DIY The DMX-512 signal receiver

The DMX receiver is designed to receive control signals in the **DMX512** standard and transfer them to the **Arduino** microcontroller input. On the same board, six load control keys are mounted.



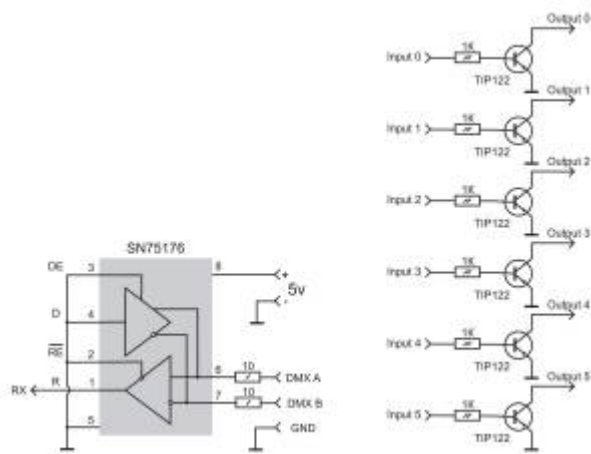
The keys are controlled by the outputs of the microcontroller **Arduino** with pulse width modulation (PWM), the load is the LED lights or LED strip.



Specifications

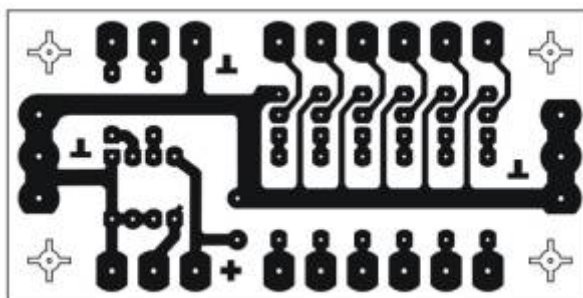
- Number of control channels - 6
- Standard input signal - DMX512 (RS485)
- Load voltage - up to 50 volts direct current
- Load current - up to 0.5 amps per channel
- Dimensions - 70×35 mm

Schematic diagram



The control signal from the DMX connector is fed to the **SN75176** buffer chip, and from it to the RX input of the Arduino microcontroller. After processing and decoding the signal (*if the address transmitted via the bus corresponds to the preset address of the microcontroller*) signals from the outputs of the microcontroller are fed to the transistor keys.

The keys, in turn, control the brightness of the corresponding LED fixtures. If necessary, you can change the program of the microcontroller so that the DMX signal controls the keys in binary mode (**on/off**). It should be ensured that the current through each transistor does not exceed 0.5 amperes



or set the output Transistors for radiators.

Parts List

Buy components can be on Aliexpress

- Microcircuit **SN75176** - **3\$** , **10 pieces of the lot. (Analog (**MAX485**) 2\$.) * **Socket for DIP-8 chip** - pack 50pcs.**
- Transistor **TIP122** (TIP120) ** -10 pcs.
- Resistor 1 kΩ 0,125 W - 6 pcs.
- Resistor 10 Ohm 0.25 W - 2 pieces
- Ceramic capacitor 0.1 μF - 1 piece

The printed circuit board can be [download here](#)

[More advanced DMX signal receiver](#)

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