1. SPECIFICATIONS

The card FADILEDS is designed to work optimally with PICAXE 28X2 card, also compatible with arduino systems with the same features but with some drawbacks on the I2C bus.

The card on the card FADILEDS monitored 28X2 PICAXE or Arduino-Uno the 16 outputs of port B and port C. The P1 variable resistor gives to an analog value input A.0. The A.2 output configured as digital output is connected to a piezozumbador. The output connector JP7 can extend or access to terminals A.3 and A. 1. The other JP8 connector is designed for extended the bus I2C port with an interrupt input B.0.

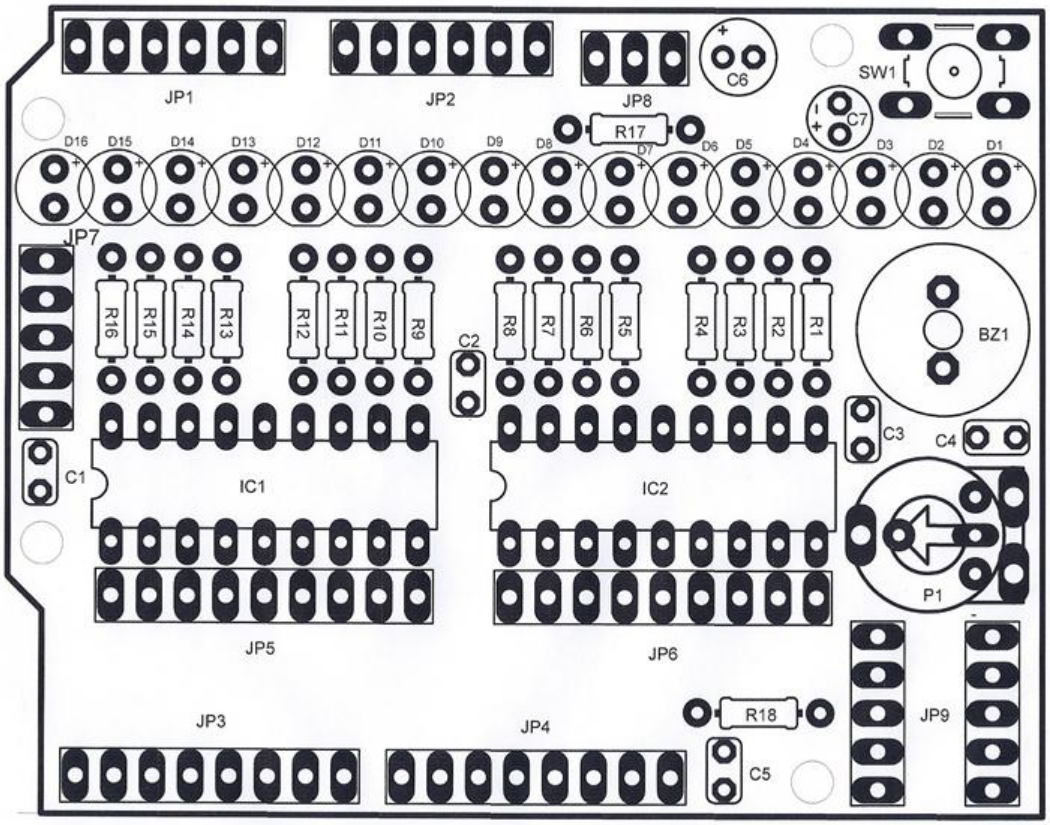
Also available 2 connectors to 8 bits of port B and C everyone, which can be configured as inputs or outputs independently.

The card supports 2 operating voltages, 3v. and 5v. Includes 2 integrated circuit ULN 2803A that are connected to ports B and C provide 16-stage buffer with voltage and current needed to power an LED on each output.

2. COMPONENTS LIST

$1PCB_1$	1013 014	PCB FADILEDS.
IC_1- IC_2	1002 505	Eight buffer ULN 2803A
SW_1	1003 000	Push button
R_1- R_8	1002 102	Resistor 1KΩ 1/4w.
R_9- R_{16}	1002 221	Resistor 220Ω 1/4w.
R_{17}	1002 240	Resistor 24Ω 1/4w.
R_{18}	1002 472	Resistor 4k7Ω 1/4w.
C_{1-5}	2050 104	100nF 50V ceramic capacitor.
C_6	2016 226	Electrolytic capacitor 22µF 16v.
C_7	2016 226	Electrolytic capacitor 10µF 16v.
Z_{1-2}	1005 316	Socket 18 DIP-0,3”.
JP_1-JP_2	1000 502	Pair connector 6 and 8 tracks.
JP_3-JP_4	1000 502	Pair connector 6 and 8 tracks.
JP_{5-6}	1004 409	Connector 9-pin female right terminals.
JP_7	1004 505	Connector 5-pin male angled terminals.
JP_8	1004 103	Connector 3-pin male right terminals.
JP_9	1004 605	Connector 5-pin female angled terminals.
S_1	1003 001	Red jumper.
BZ_1	1014 500	Piezo buzzer.
P_1		Variable resistor 20kΩ.

3. MAP OF COMPONENTS

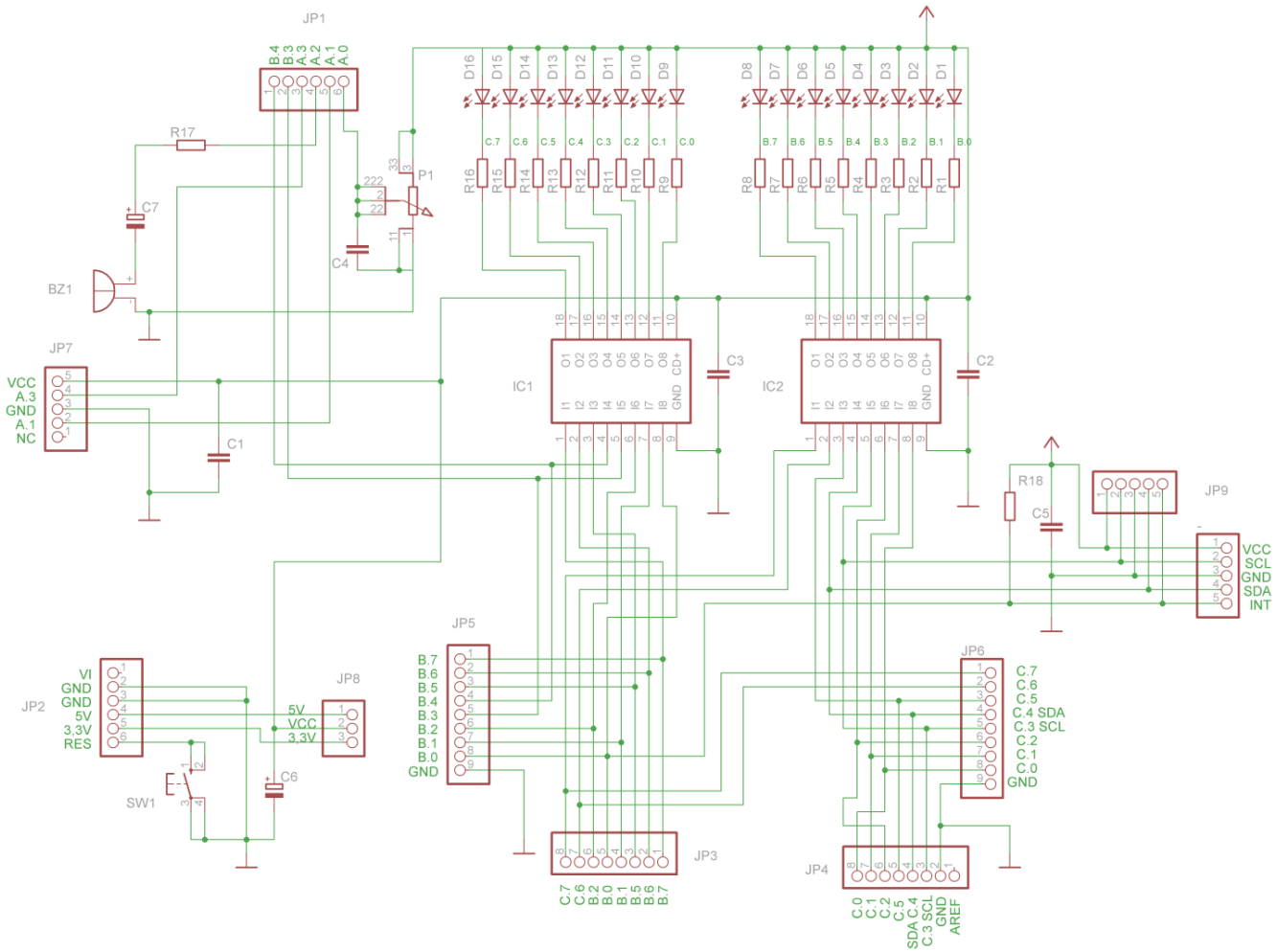


4. SETTINGS

4.1. Card Power

The card can be powered FADILEDS or 3.3 v 5v. The card provides PICAXE BASE SHIELD 5V or 3.3 V with a current of up 0'5A between the two sources and explicitly provides Arduino UNO-5v and 3.3 v-0'5A 0'1A. In both cases it is preferable to use 5v microcontrollers and feed FADIBUS with the primary power supply (5V). In any case, FADILEDS fits both voltages are selected with a red jumper S1.

5. ELECTRONIC DIAGRAM



6. FUNCTIONAL BLOCK