

Page 2

CPU, USB interface, Expansion connector,
JTAG interface and USB-UART interface

Page 3

8LEDs, RGB-LED, SD/MMC memory card interface
joystick, temperature sensor, RF-module interface

Page 4

I2C-e2prom with reset generation, 8x8 LED matrix,
Step motor and power supply

Page 5

Analog inputs/output, 2x16 character LCD and
audio output with speaker

UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic.
However, always check jumper positions on actual boards
since there is no guarantee that all jumpers are in default place.

Rev 3.0

Replaced expansion connector to 50-pos with
shoulder. Added 270 ohm series resistors for exp. conn.
Replaced buzzer with audio output with speaker.

Rev 2.1

Added +5V voltage regulator (U15, D10, C41-42)

Rev 2.0

Changed RS232 UART interface to USB-UART interface
Replaced DC-motor with step motor, added RF-module if.

Rev 1.1

Added pullsups on joystick pins
Possible to select SPI0/1 for SD memory card interface

Rev 1.0

Original revision



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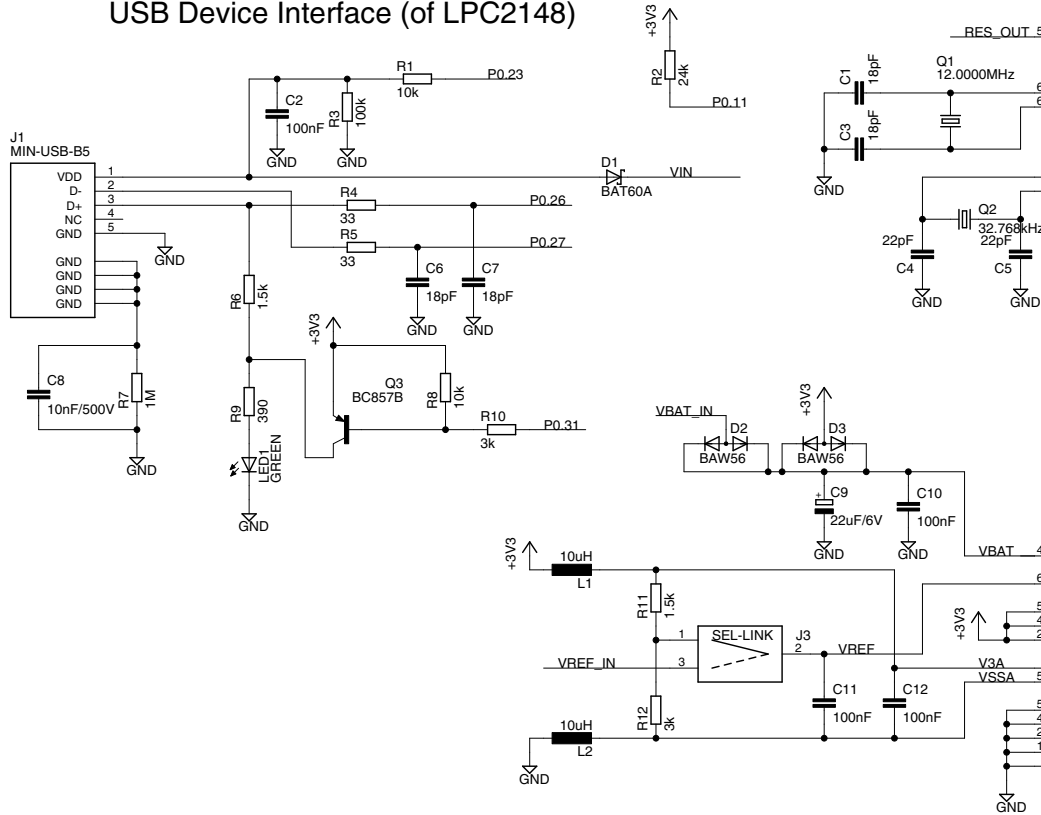
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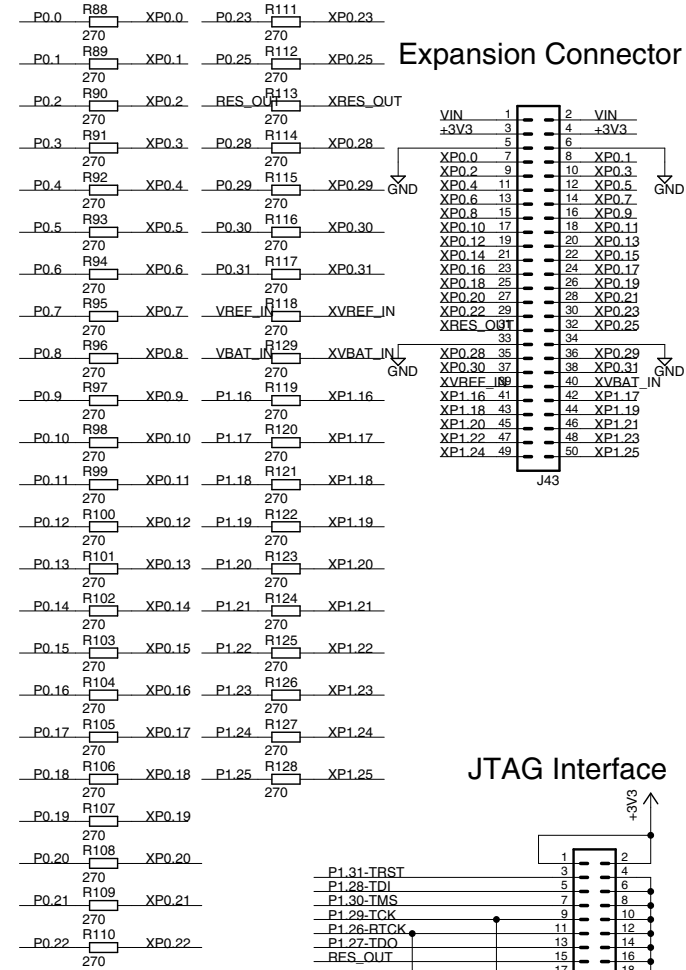
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USB Device Interface (of LPC2148)

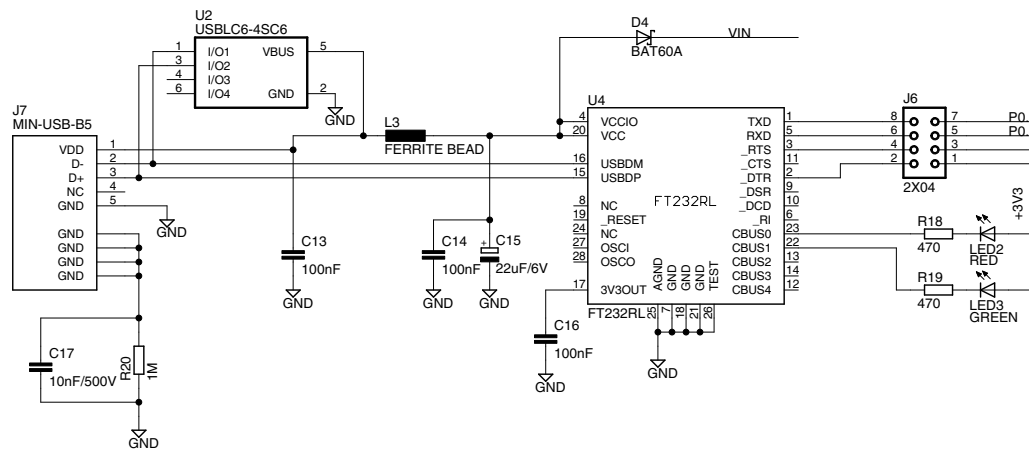


U1
LPC2148

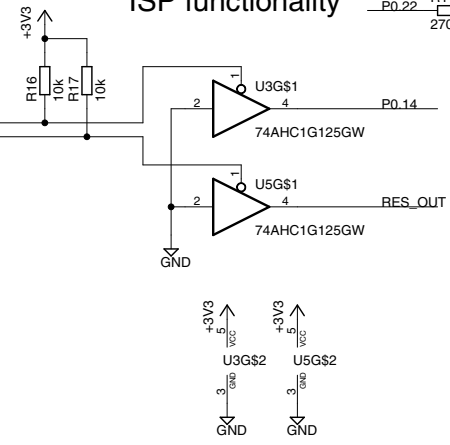
RESET	P0.0/TXD0/PWM1	19	P0.0
	P0.1/RXD0/PWM3/EINT0	21	P0.1
	P0.2/SCL0/CAP0.0	22	P0.2
	P0.3/SDA0/MAT0.0/EINT1	26	P0.3
	P0.4/SCK0/CAPO.1/AIN6	27	P0.4
	P0.5/MISO0/MAT0.1/AIN7	29	P0.5
	P0.6/MOSI0/CAPO.2/AIN8	30	P0.6
	P0.7/SSEL0/PWM2/EINT2	31	P0.7
	P0.8/TXD1/PWM4/AIN9	33	P0.8
	P0.9/RXD1/PWM6/EINT3	34	P0.9
RTCX1	P0.10/RTS1/CAP1.0/AIN10	35	P0.10
RTCX2	P0.11/CTS1/CAP1.1/SCL1	37	P0.11
	P0.12/DSR1/MAT1.0/AIN11	38	P0.12
	P0.13/DTR1/MAT1.1/AIN12	39	P0.13
	P0.14/DCD1/EINT1/SDA1	41	P0.14
	P0.15/RI1/EINT2/AIN13	45	P0.15
	P0.16/EINT0/MAT0.2/CAPO.2	46	P0.16
	P0.17/CAP1.2/SCK1/MAT1.2	47	P0.17
	P0.18/CAP1.3/MISO1/MAT1.3	53	P0.18
	P0.19/MAT1.2/MOSI1/CAP1.2	54	P0.19
	P0.20/MAT1.3/SSEL1/EINT3	55	P0.20
	P0.21/PWM5/AIN14/CAP1.3	1	P0.21
	P0.22/AIN15/CAPO.0/MAT0.0	2	P0.22
	P0.23	58	P0.23
	P0.25/AIN4/AOUT	9	P0.25
	P0.26/AIN5	10	P0.26
	P0.27/AIN0/CAPO.1/MAT0.1	11	P0.27
	P0.28/AIN1/CAPO.2/MAT0.2	13	P0.28
	P0.29/AIN2/CAPO.3/MAT0.3	14	P0.29
	P0.30/AIN3/EINT3/CAPO.0	15	P0.30
	P0.31	17	P0.31
	P1.16/TRACEPKT0	16	P1.16
	P1.17/TRACEPKT1	12	P1.17
	P1.18/TRACEPKT2	8	P1.18
	P1.19/TRACEPKT3	4	P1.19
	P1.20/TRACESYNC	48	P1.20
	P1.21/PIPESTAT0	44	P1.21
	P1.22/PIPESTAT1	40	P1.22
	P1.23/PIPESTAT2	36	P1.23
	P1.24/TRACECLK	32	P1.24
	P1.25/EXTINT0	28	P1.25
	P1.26/RTCK	24	P1.26-RTCK
	P1.27/TDO	64	P1.27-TDO
	P1.28/TDI	60	P1.28-TDI
	P1.29/TCK	56	P1.29-TCK
	P1.30/TMS	52	P1.30-TMS
	P1.31/TRST	20	P1.31-TRST



UART #0 over USB Serial Bridge



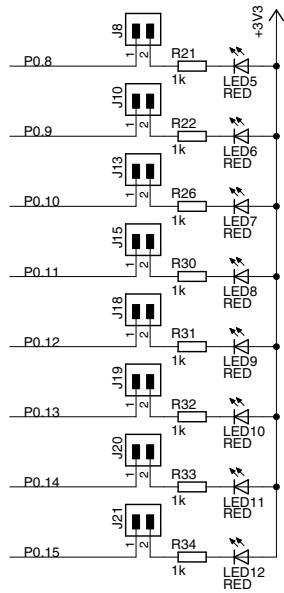
ISP functionality



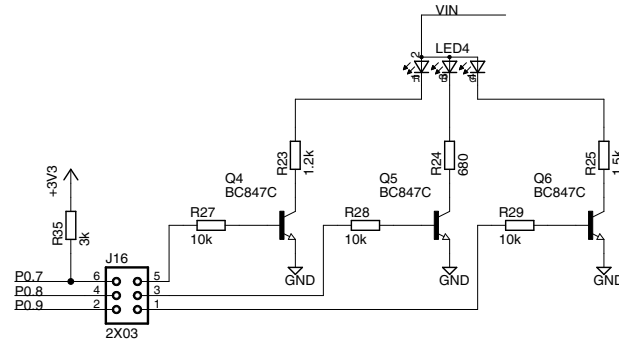
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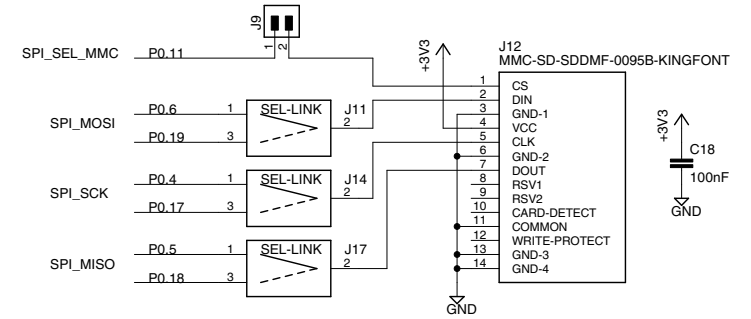
8 LEDs



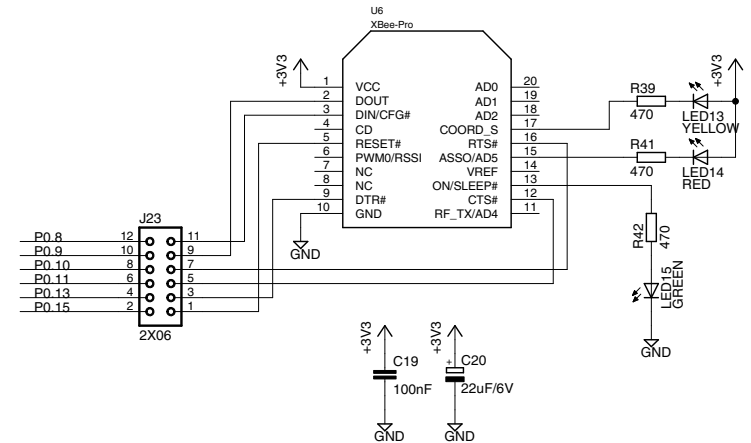
RGB-LED



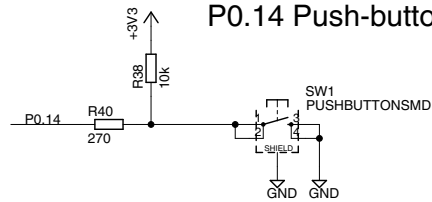
MMC/SD Memory Card Interface



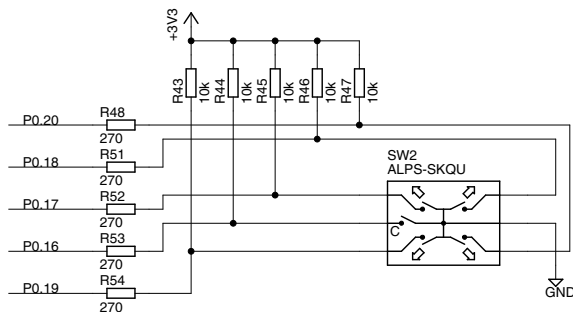
MaxStream XBee module



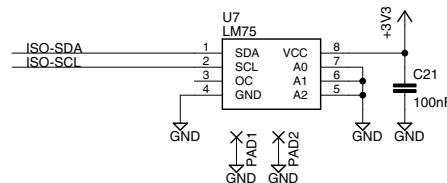
P0.14 Push-button



Joystick Switch



LM75 I2C Temperature Sensor



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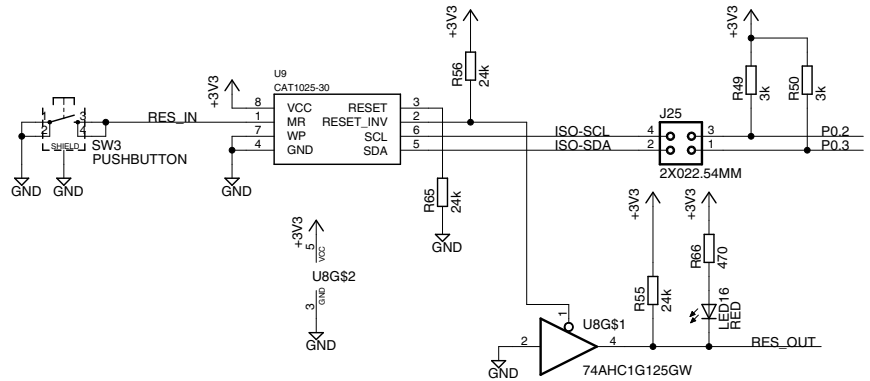
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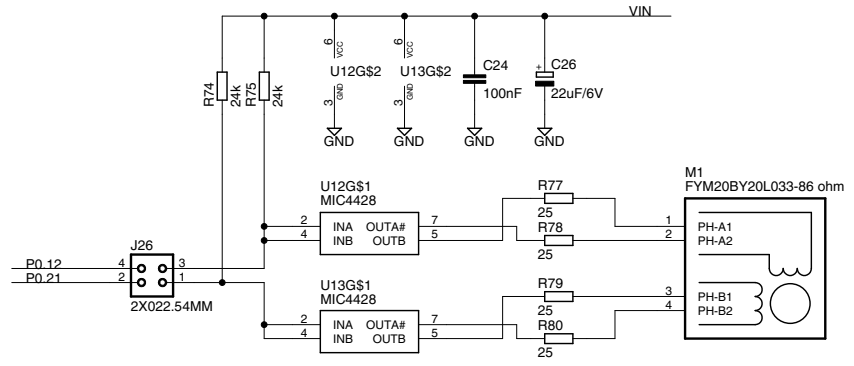
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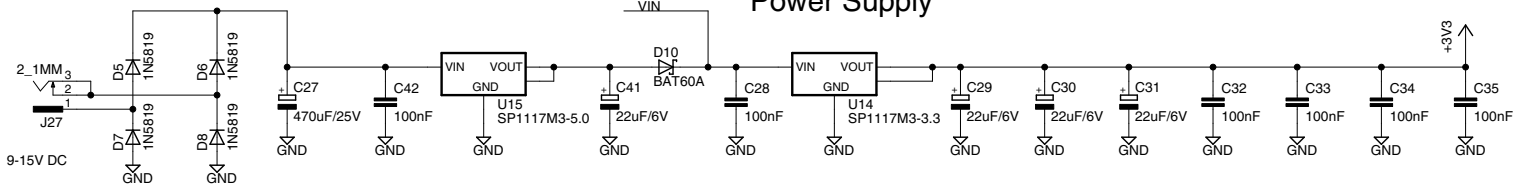
I2C-E2PROM and RESET



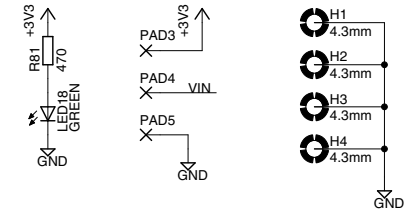
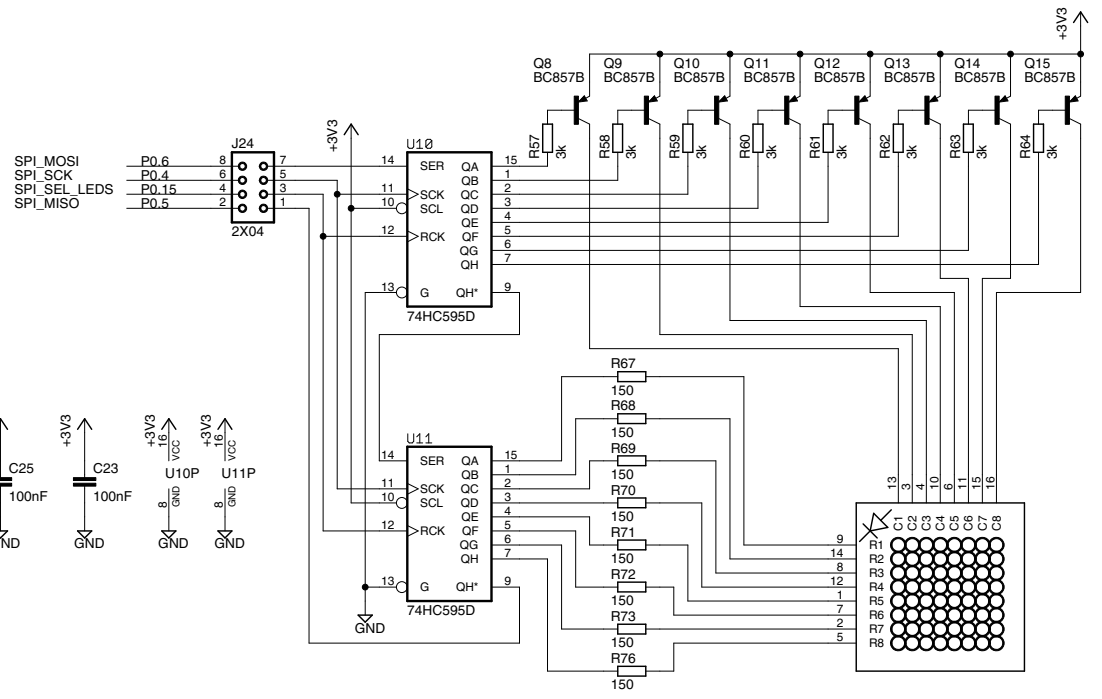
Step Motor Control




Power Supply



8x8 LED Matrix





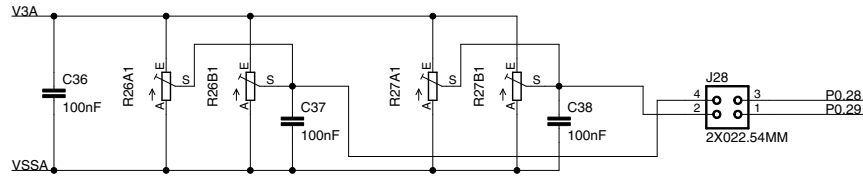
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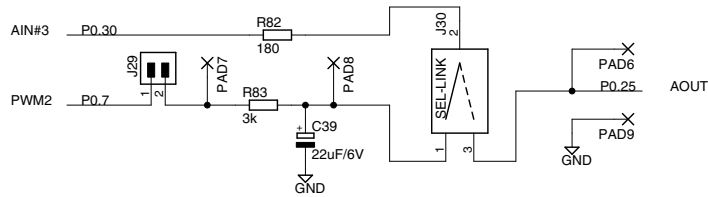
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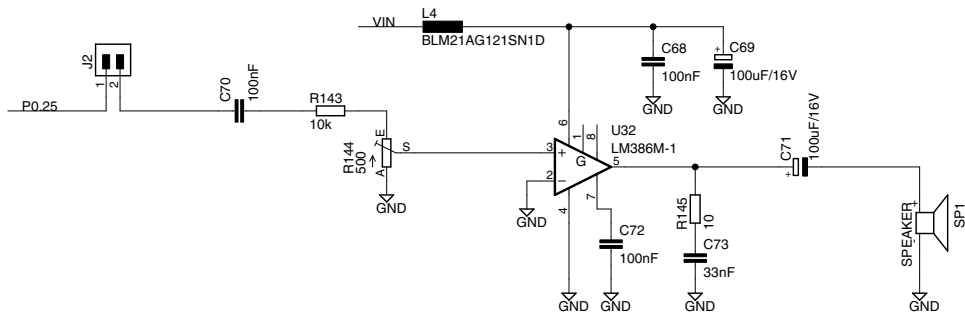
2 Analog Inputs



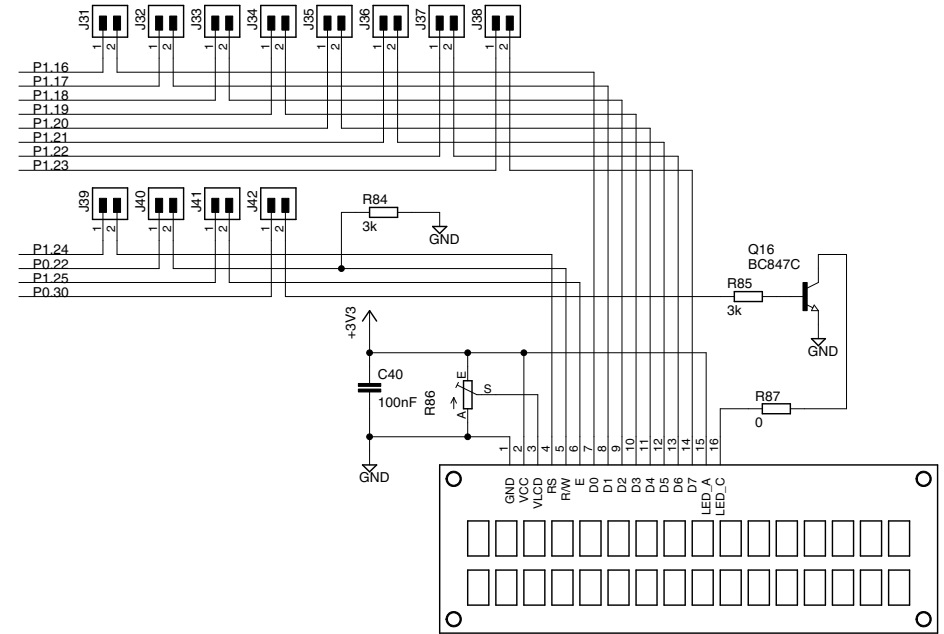
Analog Output (PWM LP filtering)



Speaker amplifier



2x16 Character LCD Interface



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