rtc

SDA
SCL

rtc.sch

relays

relays.sch

SDA
SCL

SDA
SCL

SDA   3.9k   +3V3
       R1

SCL   3.9k   +3V3
       R2

P2

	+3V3	1	2	+5V	
SDA		3	4	+5V	
SCL		5	6	GND	
BCM4		7	8	TXD	
	GND	9	10	RXD	
BCM17		11	12	BCM18	
BCM27		13	14	GND	
BCM22		15	16	BCM23	
	+3V3	17	18	BCM24	
BCM10		19	20	GND	
BCM9		21	22	BCM25	
BCM11		23	24	BCM8	
	GND	25	26	BCM7	
ID_SD		27	28	ID_SC	
BCM5		29	30	GND	
BCM6		31	32	BCM12	
BCM13		33	34	GND	
BCM19		35	36	BCM16	
BCM26		37	38	BCM20	
	GND	39	40	BCM21	

RaspberryPi_2x20

BCM18   330   2   LED   1   GND
         R6   D1

+3V3   +5V

   + C2   + C3
  47µF 25V   330µF 35V

   GND   GND

ATTINY85-P

IC1

GND   4   GND
DIP8
+3V3   8   VCC

PB5(RESET/dW/ADC0/PCINT5)   1   R3   +3V3
                                  10k
PB4(XTAL2/CLKO/OC1B/ADC2/PCINT4)   3
PB3(XTAL1/CLKI/OC1B/ADC3/PCINT3)   2
PB2(SCK/USCK/SCL/T0/INT0/ADC1/PCINT2)   7
PB1(MISO/DO/AIN1/OC0B/OC1A/PCINT1)   6
PB0(MOSI/DI/SDA/AIN0/OC0A/OC1A/AREF/PCINT0)   5

100n
C1
GND

P1

	1	2	+3V3
	3	4	
	5	6	GND +3V3

ISP

ID_SC
ID_SD

R4   R5
3.9k 3.9k

+3V3 +3V3

TXD
RXD

profibus

RxD
TxForceEn
TxD

profibus.sch
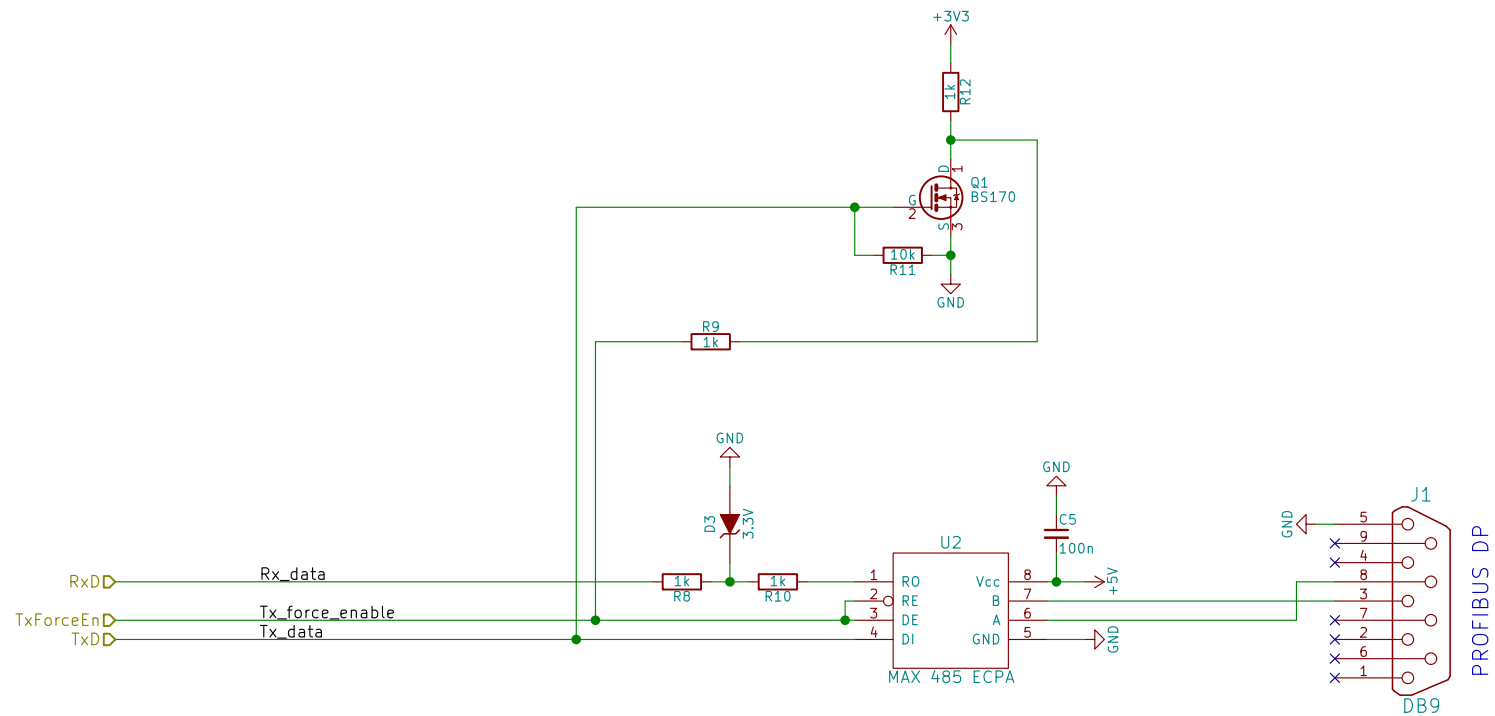
Michael Buesch <m@bues.ch>

Sheet: /
File: pilc.sch

Title: PiLC HAT

Size: A4   Date: Rev: 0.1
KiCad E.D.A. kicad 4.0.1+dfsg1-stable   Id: 1/4

U1

+3V3	1	VDD	CLKOE	10
	2	CLKOUT	nc	9
	3	nc	Vbackup	8
SCL	4	SCL	INT	7
SDA	5	SDA	VSS	6

RV-3029-C2

R7 100

C4 1F 5.5V

D2 5.1V

GND

+3V3

R12 1k

Q1 BS170

R11 10k

GND

R9 1k

GND

D3 3.3V

R8 1k

R10 1k

U2

1	RO	Vcc	8
2	RE	B	7
3	DE	A	6
4	DI	GND	5

MAX 485 ECPA

+5V

C5 100n

GND

GND

RxD — Rx_data

TxForceEn — Tx_force_enable

TxD — Tx_data

J1

GND

5	
9	
4	
8	
3	
7	
2	
6	
1	

PROFIBUS DP

DB9

Michael Buesch <m@bues.ch>

Sheet: /profibus/
File: profibus.sch

Title: PiLC HAT — PROFIBUS-DP PHY

Size: A4 | Date: | Rev: 0.1
KiCad E.D.A. kicad 4.0.1+dfsg1-stable | Id: 3/4