

Power



File: Power.kicad_sch

Level translators



File: Level translators.kicad_sch

Programming & debug



File: Programming debug.kicad_sch



File: IO.kicad_sch

Storage & display

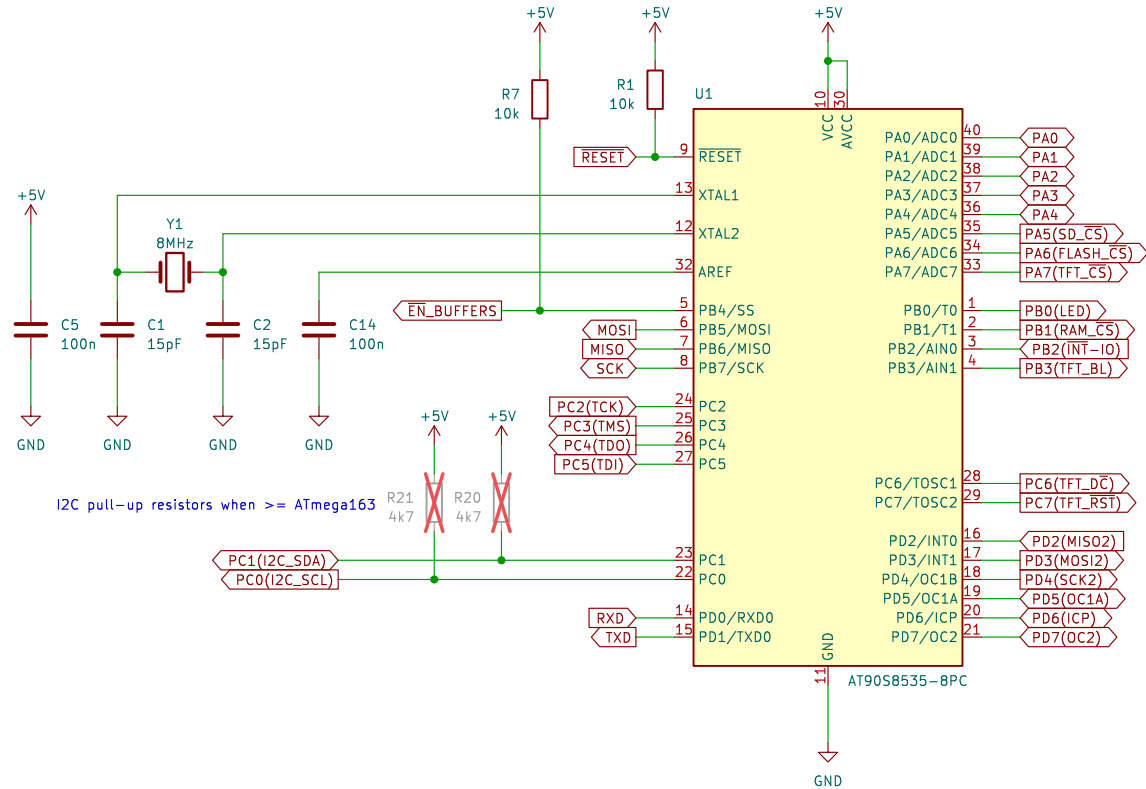


File: Storage display.kicad_sch

Ye olde microcontroller.

This schematic also works for:

AT90S4434
AT90S8535
ATmega163
ATmega8535
ATmega323
ATmega16
ATmega32
ATmega644
ATmega1284
ATmega164
ATmega324



- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

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<https://github.com/atoomnetmarc/AVR-demo-board>

Sheet: /
File: at90s8535.kicad_sch

Title: AT90S8535 demo board

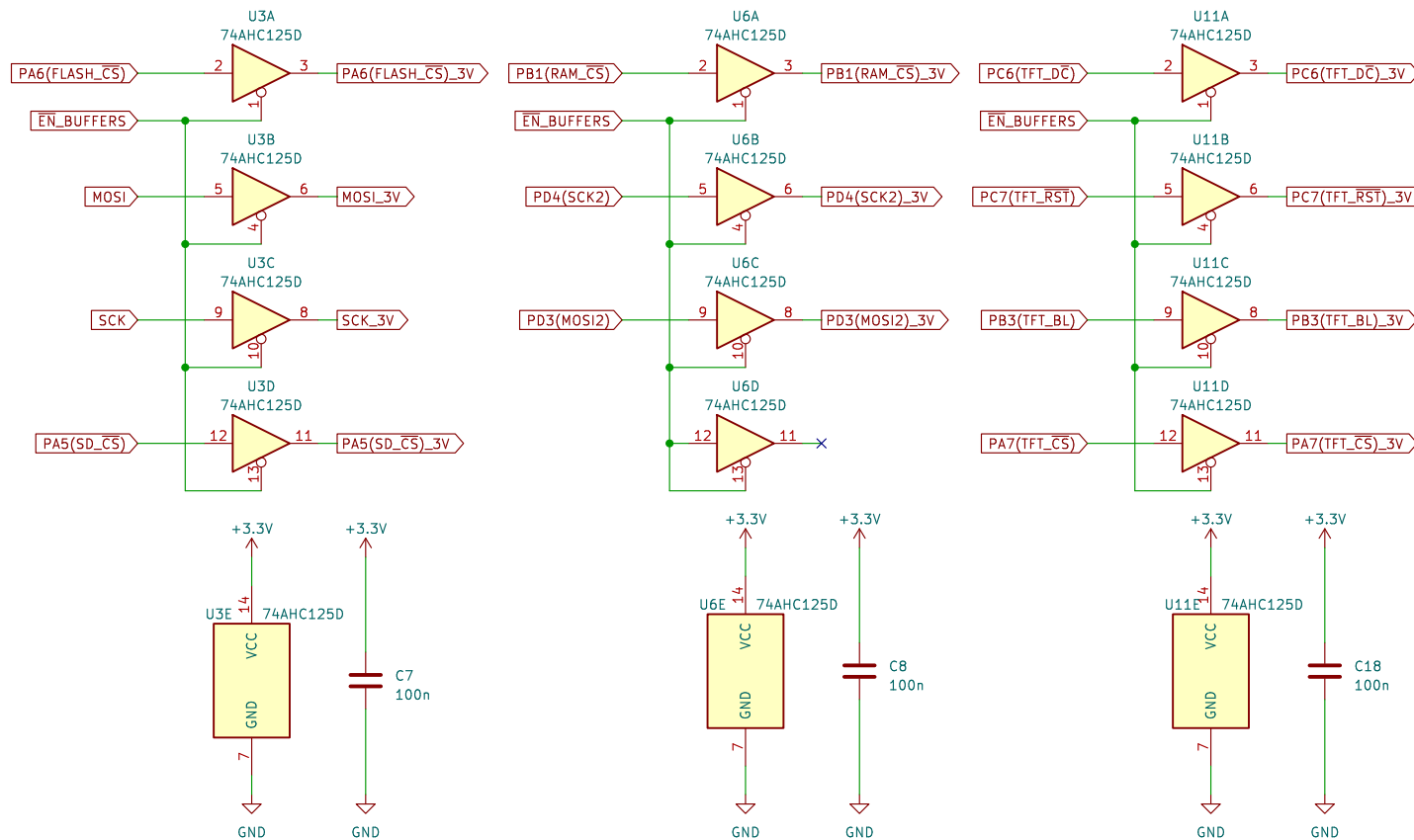
Size: A4 Date: 2023-04-01

KiCad E.D.A. 8.0.5

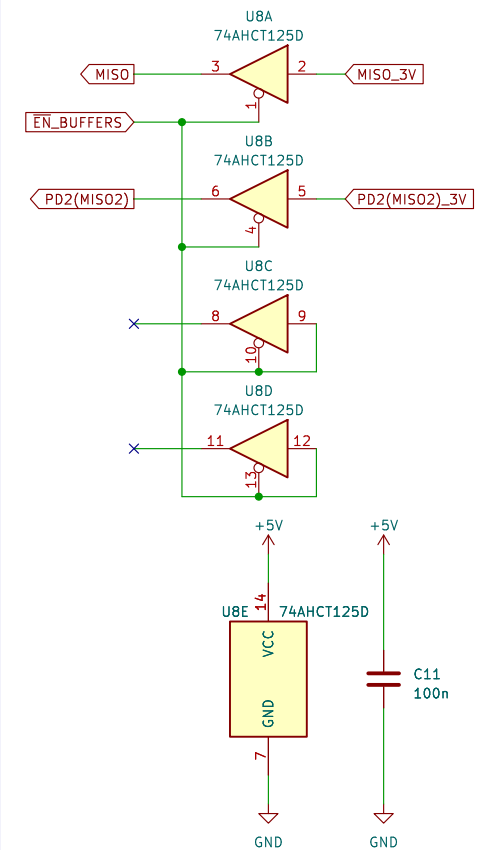
Rev: V1.0

Id: 1/6

Level translate 5V to 3V3.



Level translate 3V3 to 5V.



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Sheet: /Level translators/
 File: Level translators.kicad_sch

Title: AT90S8535 demo board

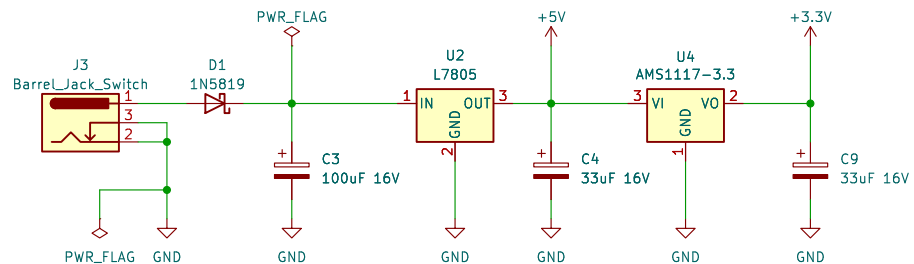
Size: A4 Date: 2023-04-01

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Rev: V1.0

Id: 2/6

9V to 5V and 3V3 linear regulators.



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Title: AT90S8535 demo board

Size: A4 Date: 2023-04-01

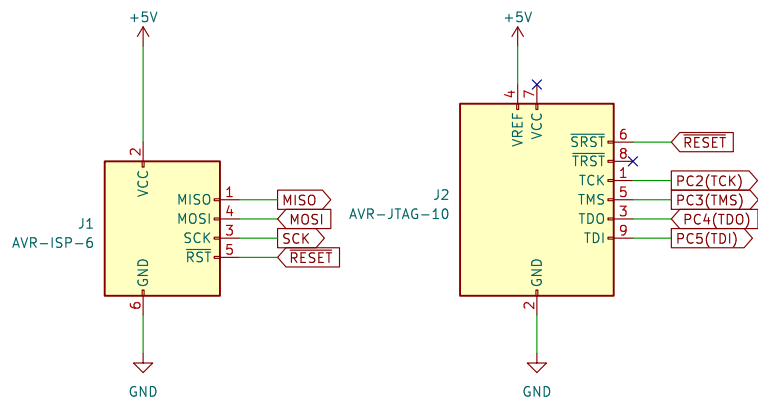
KiCad E.D.A. 8.0.5

Rev: V1.0

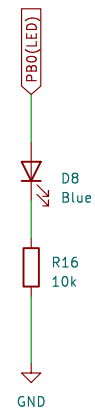
Id: 3/6

Programming & debug headers.

JTAG debug works for ATmega16 and newer.
AT90S4434, AT90S8535, ATmega163 and ATmega8535 do not have JTAG port.

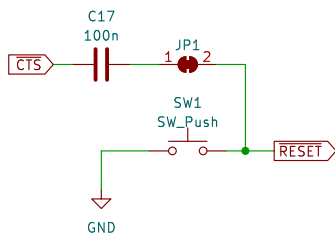


Blinkenlight.



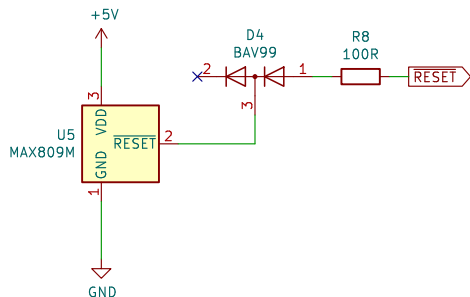
Reset button and auto reset programming.

Open JP1 to disable auto reset.



Voltage monitor.

Only needed for devices without BOD like AT90S4434 or AT90S8535



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Sheet: /Programming & debug/
File: Programming debug.kicad_sch

Title: AT90S8535 demo board

Size: A4

Date: 2023-04-01

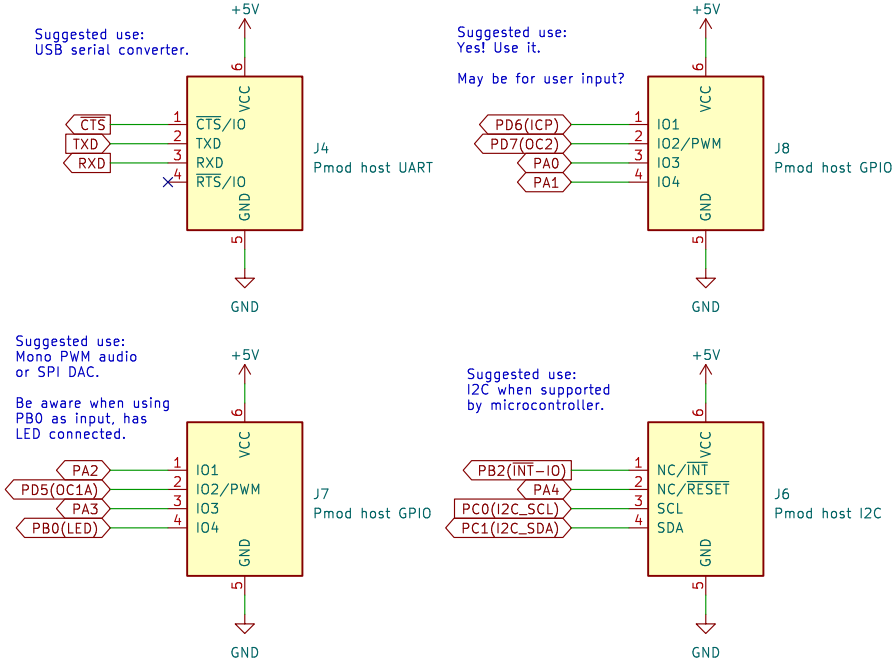
Rev: V1.0

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5V IO connectors.

These have PMOD pinouts. Except they work with 5V VCC and 5V IO.



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Sheet: /IO/
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Title: AT90S8535 demo board

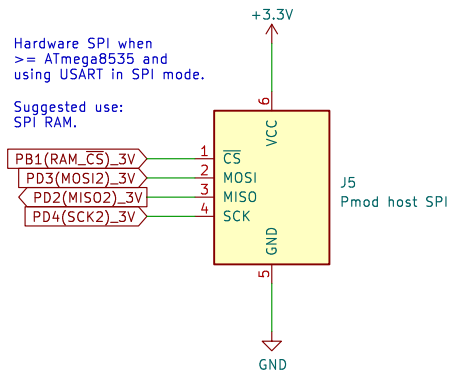
Size: A4	Date: 2023-04-01	Rev: V1.0
KiCad E.D.A. 8.0.5		Id: 5/6

3.3V 10 connectors.

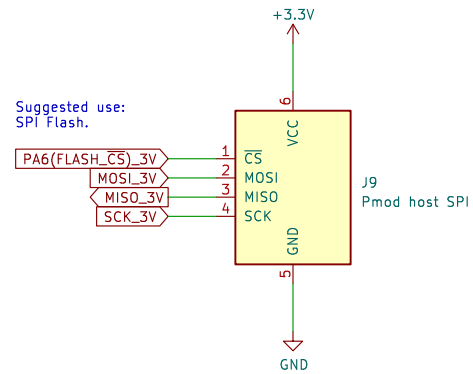
These have PMOD pinouts and work on 3.3V.

Hardware SPI when
>= ATmega8535 and
using USART in SPI mode.

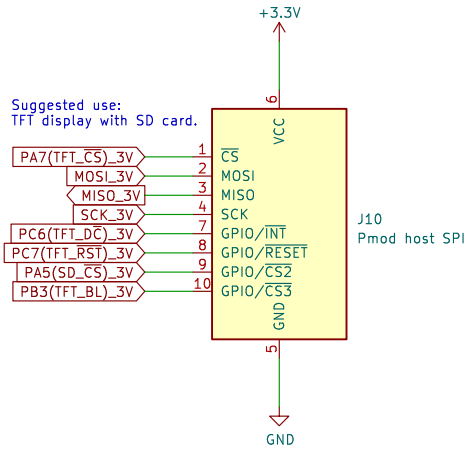
Suggested use:
SPI RAM.



Suggested use:
SPI Flash.



Suggested use:
TFT display with SD card.



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Sheet: /Storage & display/

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Size: A4

Date: 2023-04-01

Rev: V1.0

KiCad E.D.A. 8.0.5

Id: 6/6