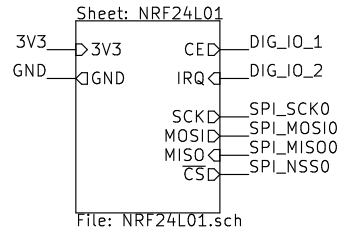
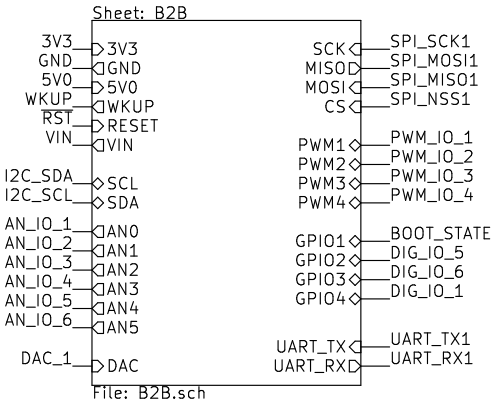


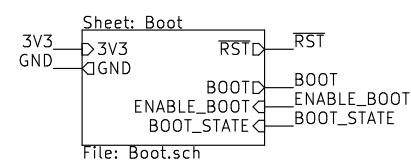
NRF24L01



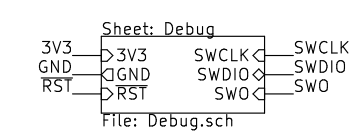
B2B



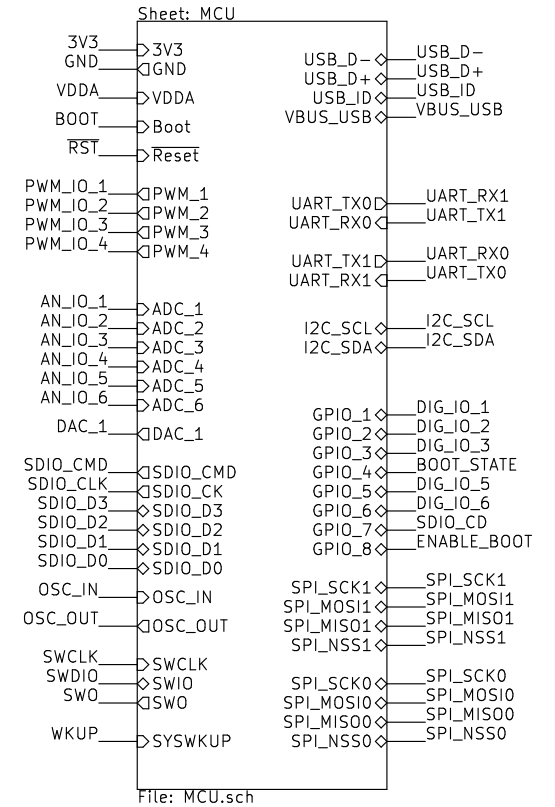
Boot & Reset



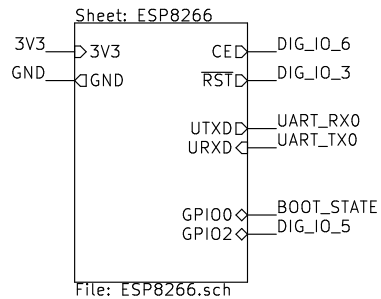
Debug



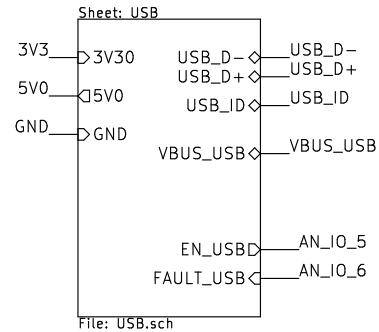
MCU



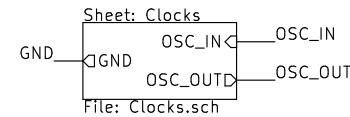
ESP8266



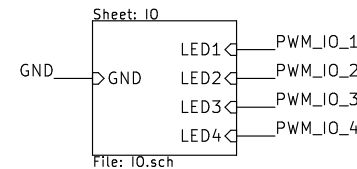
USB_FS



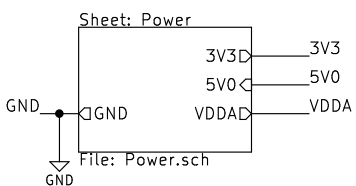
External Clocks



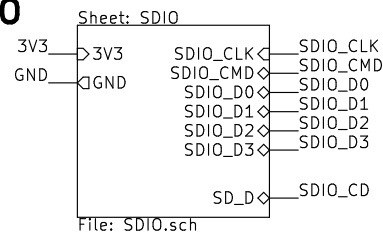
IO



Power Supply



SDIO



Kodillo compatible
<https://github.com/javifercep/Krakoski>

Javier Fernández Cepeda

Sheet: /
 File: Krakoski.sch

Title: Noodleboard

Size: A4 | Date: 2015-10-03
 KiCad E.D.A. kicad 4.0.0-rc1-stable

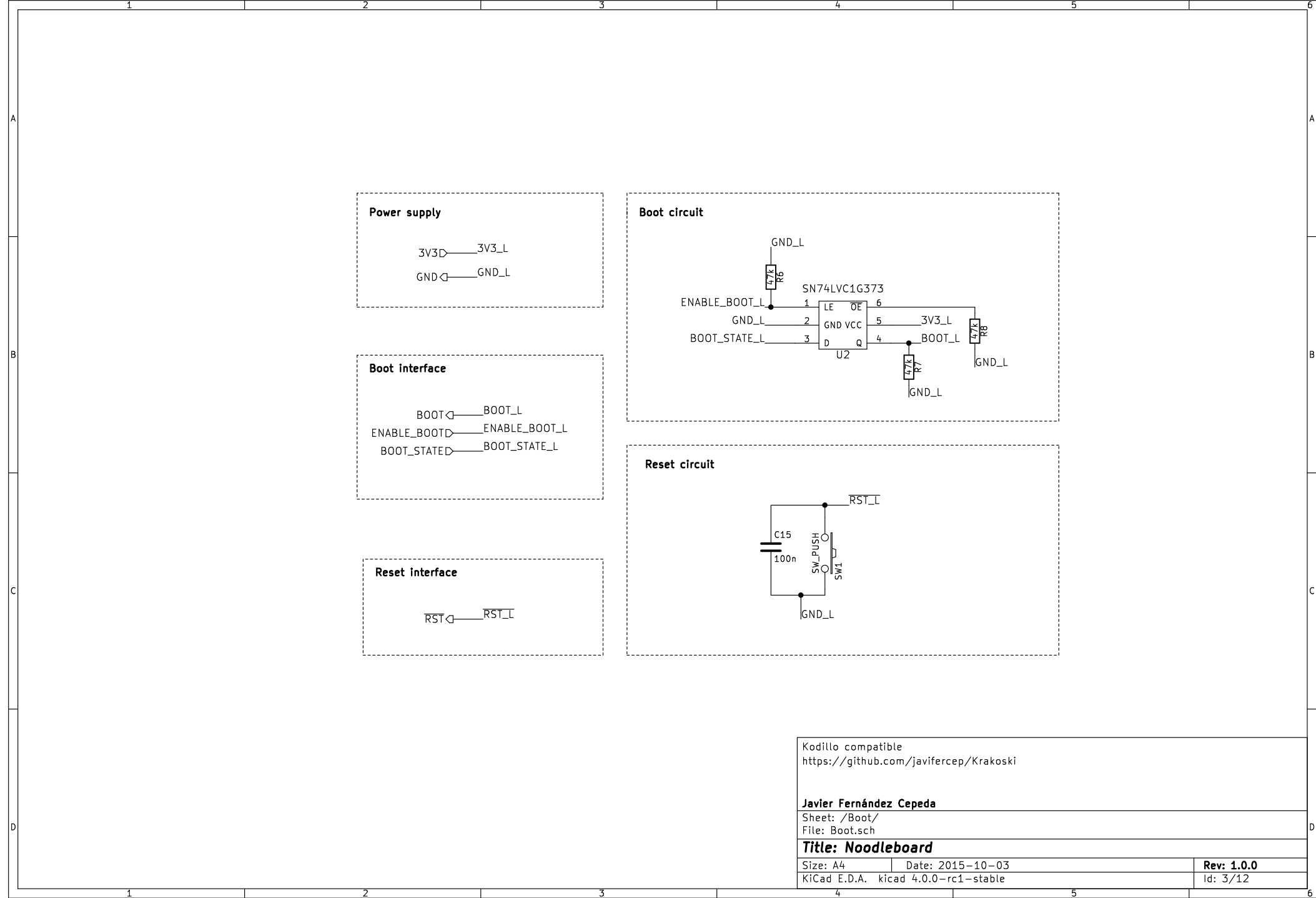
Rev: 1.0.0
 Id: 1/12



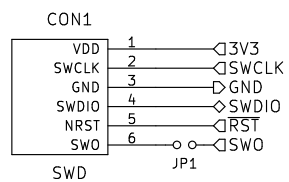
Javier Fernández Cepeda

Title: Noodleboard

Rev: 1.0.0
Id: 2/12



Serial Wire Debug
STLINK



Kodillo compatible
<https://github.com/javifercep/Krakovski>

Javier Fernández Cepeda

Sheet: /Debug/

File: Debug.sch

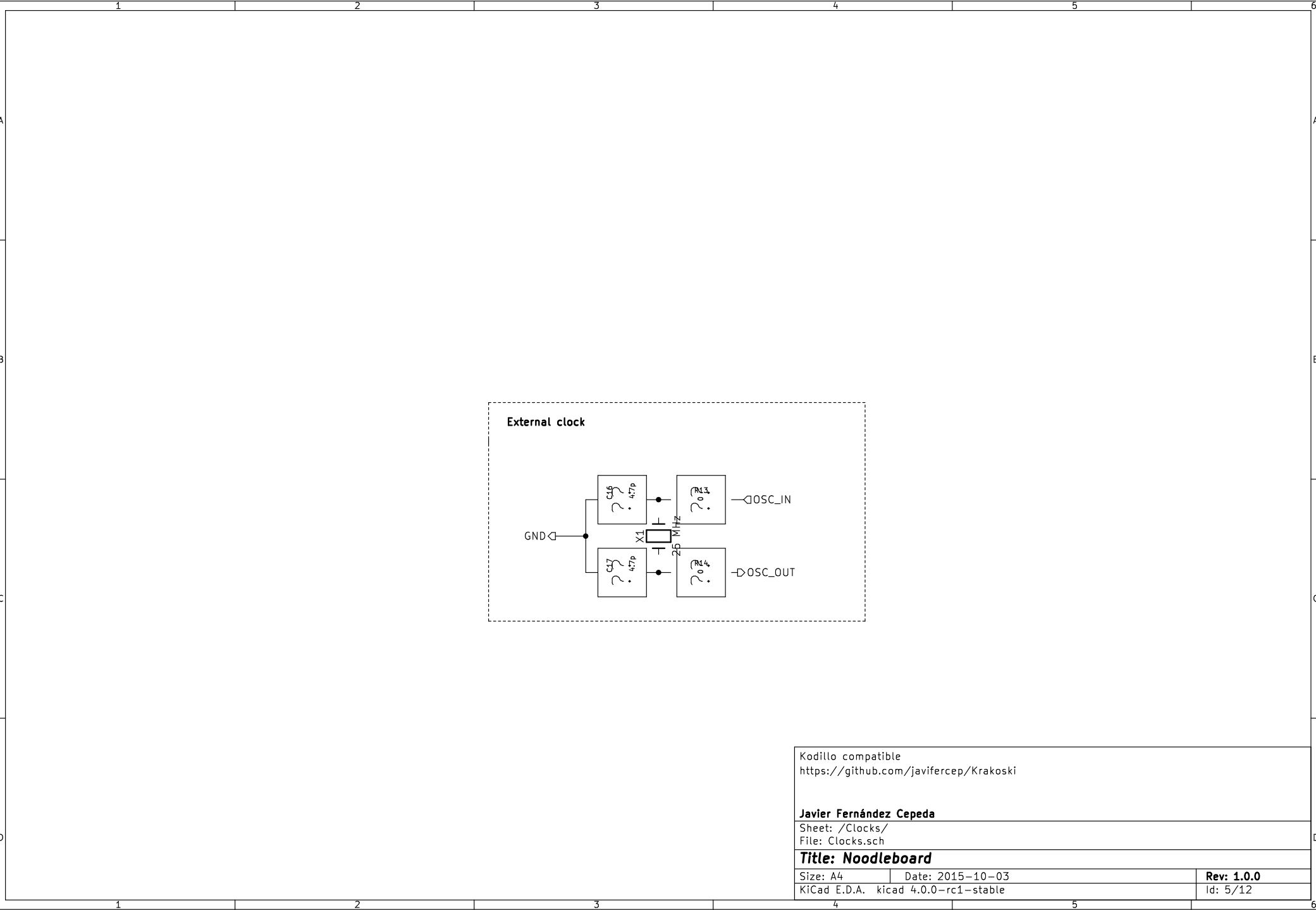
Title: Noodleboard

Size: A4 Date: 2015-10-03

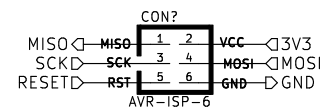
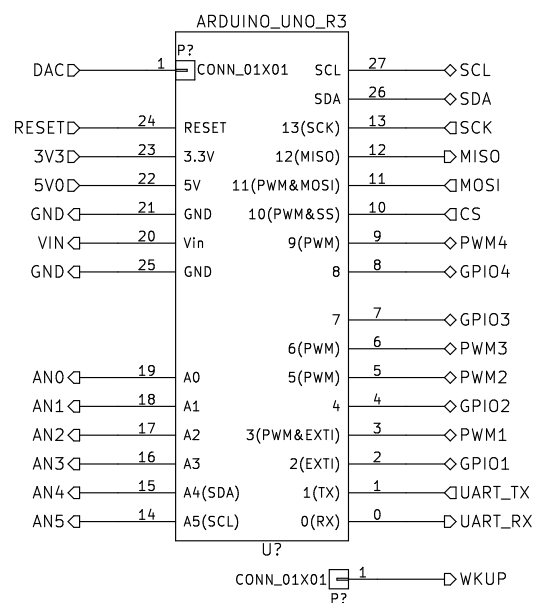
KiCad E.D.A. kicad 4.0.0-rc1-stable

Rev: 1.0.0

Id: 4/12



Board to board connector



Kodillo compatible
<https://github.com/javifercep/Krakoski>

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Sheet: /B2B/
 File: B2B.sch

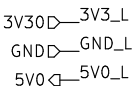
Title: Noodleboard

Size: A4 Date: 2015-10-03
 KiCad E.D.A. kicad 4.0.0-rc1-stable

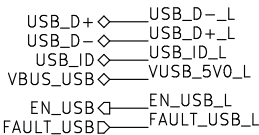
Rev: 1.0.0
 Id: 6/12

USB_Full_Speed

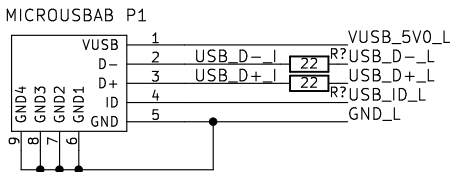
Power supply



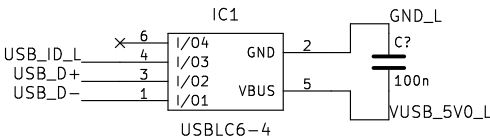
USB MCU Interface



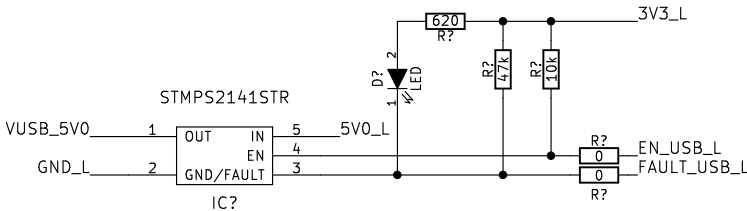
Connector



ESD protection



USB OTG



Kodillo compatible
<https://github.com/javifercep/Krakoski>

Javier Fernández Cepeda

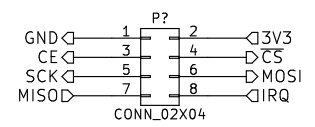
Sheet: /USB/
File: USB.sch

Title: Noodleboard

Size: A4 Date: 2015-10-03
KiCad E.D.A. kicad 4.0.0-rc1-stable

Rev: 1.0.0
Id: 7/12

NRF24L01 Interface



MCU internal pull-ups & pull-downs are used

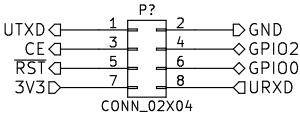
Sheet: /NRF24L01/
File: NRF24L01.sch

Title:

Size: A4 Date: KICad E.D.A. kicad 4.0.0-rc1-stable

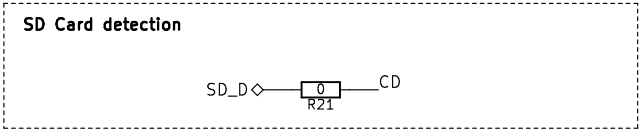
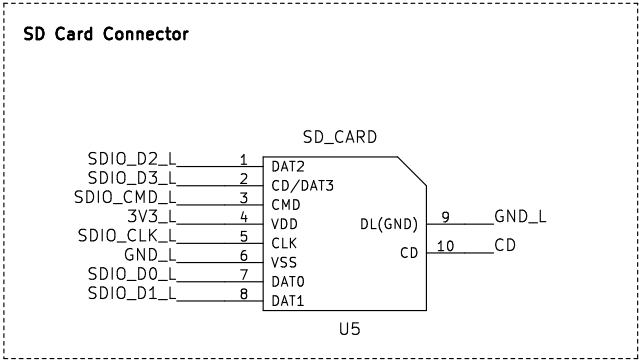
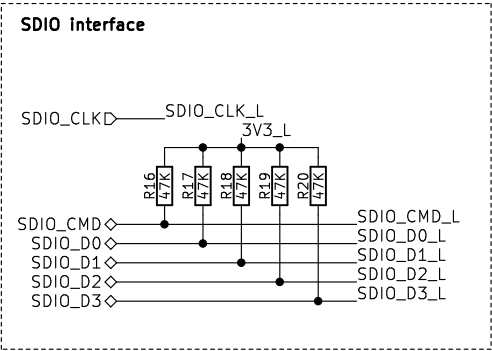
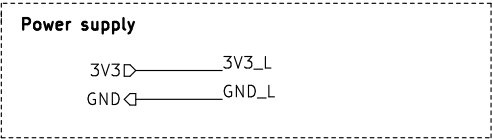
Rev: Id: 8/12

ESP8266 Interface



MCU internal pull-ups & pull-downs are used

Sheet: /ESP8266/ File: ESP8266.sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad 4.0.0-rc1-stable		Id: 9/12



Kodillo compatible
<https://github.com/javifercep/Krakoski>

Javier Fernández Cepeda

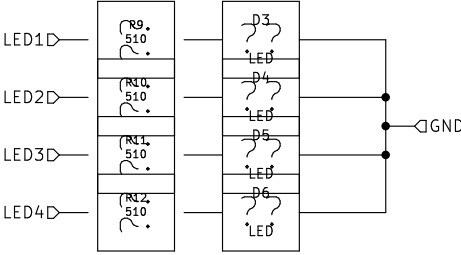
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File: SDIO.sch

Title: Noodleboard

Size: A4
Date: 2015-10-03
KiCad E.D.A. kicad 4.0.0-rc1-stable

Rev: 1.0.0
Id: 10/12

On board LEDs



Kodillo compatible
<https://github.com/javifercep/Krakovski>

Javier Fernández Cepeda

Sheet: /IO/
File: IO.sch

Title: Noodleboard

Size: A4
Date: 2015-10-03
KiCad E.D.A. kicad 4.0.0-rc1-stable

Rev: 1.0.0
Id: 11/12

MCU: STM32F405 / STM32F205 / STM32F105

Power inputs

3V3 \rightarrow 3V3_L
GND \rightarrow GND_L
VDDA \rightarrow VDDA_L

Reset & boot

Reset \rightarrow NRST_L
Boot \rightarrow R22 \rightarrow BOOT_L
GND_L \rightarrow R23 \rightarrow 1K \rightarrow BOOT_L

External Clock

OSC_IN \rightarrow OSC_IN_L
OSC_OUT \rightarrow OSC_OUT_L

IO

GPIO_1 \rightarrow GPIO_1_L
GPIO_2 \rightarrow GPIO_2_L
GPIO_3 \rightarrow GPIO_3_L
GPIO_4 \rightarrow GPIO_4_L
GPIO_5 \rightarrow GPIO_5_L
GPIO_6 \rightarrow GPIO_6_L
GPIO_7 \rightarrow GPIO_7_L
GPIO_8 \rightarrow GPIO_8_L
ADC_1 \rightarrow ADC_1_L
ADC_2 \rightarrow ADC_2_L
ADC_3 \rightarrow ADC_3_L
ADC_4 \rightarrow ADC_4_L
ADC_5 \rightarrow ADC_5_L
ADC_6 \rightarrow ADC_6_L

DAC_1 \rightarrow DAC_1_L

I2C

I2C_SCL \rightarrow I2C_SCL_L
I2C_SDA \rightarrow I2C_SDA_L

UART & USART

UART_TX0 \rightarrow UART_TX0_L
UART_RX0 \rightarrow UART_RX0_L
UART_TX1 \rightarrow UART_TX1_L
UART_RX1 \rightarrow UART_RX1_L

SPI

SPI_SCK0 \rightarrow SPI_SCK0_L
SPI_MOSI0 \rightarrow SPI_MOSI0_L
SPI_MISO0 \rightarrow SPI_MISO0_L
SPI_NSS0 \rightarrow SPI_NSS0_L
SPI_SCK1 \rightarrow SPI_SCK1_L
SPI_MOSI1 \rightarrow SPI_MOSI1_L
SPI_MISO1 \rightarrow SPI_MISO1_L
SPI_NSS1 \rightarrow SPI_NSS1_L

USB_FS

USB_D- \rightarrow USB_D-_L
USB_D+ \rightarrow USB_D+_L
USB_ID \rightarrow USB_ID_L
VBUS_USB \rightarrow VBUS_USB_L

SDIO

SDIO_CMD \rightarrow SDIO_CMD_L
SDIO_CK \rightarrow SDIO_CK_L
SDIO_D3 \rightarrow SDIO_D3_L
SDIO_D2 \rightarrow SDIO_D2_L
SDIO_D1 \rightarrow SDIO_D1_L
SDIO_D0 \rightarrow SDIO_D0_L

Debug & SYS

SWCLK \rightarrow SWCLK_L
SWIO \rightarrow SWDIO_L
SWO \rightarrow SWO_L
SYSWKUP \rightarrow SYSWKUP_L

PWM

PWM_1 \rightarrow PWM_1_L
PWM_2 \rightarrow PWM_2_L
PWM_3 \rightarrow PWM_3_L
PWM_4 \rightarrow PWM_4_L

VBAT stabilization

3V3_L \rightarrow C? \rightarrow 47 \rightarrow R? \rightarrow VBAT_L
GND_L \rightarrow C \rightarrow GND_L
GND_L \rightarrow C? \rightarrow GND_L

Power scheme adaptor STM32F105/STM32F405

VCAP_1
C? \rightarrow C \rightarrow GND_L
0 resistor
- Mount: STM32F105,
- Unmount: STM32F405

VCAP_2
C? \rightarrow C \rightarrow GND_L
0 resistor
- Mount: STM32F105,
- Unmount: STM32F405

Decoupling capacitors

3V3_L \rightarrow C? \rightarrow C \rightarrow GND_L
C? \rightarrow C \rightarrow GND_L
C? \rightarrow C \rightarrow GND_L
C? \rightarrow C \rightarrow GND_L
C? \rightarrow C \rightarrow GND_L

MCU MAPPING

STM32F205RCTX U6

64	3V3_L	64	3V3_L
63	GND_L	48	3V3_L
62	I2C_SDA_L	47	VCAP_2
61	I2C_SCL_L	46	SWDIO_L
60	BOOT_L	45	USB_D+_L
59	UART_RX1_L	44	USB_D-_L
58	UART_TX1_L	43	USB_ID_L
57	PWM_1_L	42	VBUS_USB_L
56	PWM_2_L	41	X
55	SWO_L	40	SDIO_D1_L
54	SDIO_CMD_L	39	SDIO_D0_L
53	SDIO_CK_L	38	GPIO_1_L
52	SDIO_D3_L	37	GPIO_2_L
51	SDIO_D2_L	36	SPI_MOSIO_L
50	SDIO_D1_L	35	SPI_MISO0_L
49	SWCLK_L	34	SPI_SCK0_L
		33	SPI_NSS0_L
VDD	1	VBAT	
GPIO_5_L	2	PC13	
GPIO_4_L	3	PC14	
GPIO_3_L	4	PC15	
OSC_IN_L	5	PH0	
OSC_OUT_L	6	PH1	
NRST_L	7	NRST	
GPIO_8_L	8	PC0	
GPIO_7_L	9	PC1	
ADC_6_L	10	PC2	
ADC_5_L	11	PC3	
GND_L	12	VSSA	
VDDA_L	13	VDDA	
SYSWKUP_L	14	PA0_WKUP	
GPIO_6_L	15	PA1	
UART_TX0_L	16	PA2	
		PA3	
		VSS	
		VDD	
		PA4	
		PA5	
		PA6	

Rev: 1.0.0
Id: 12/12