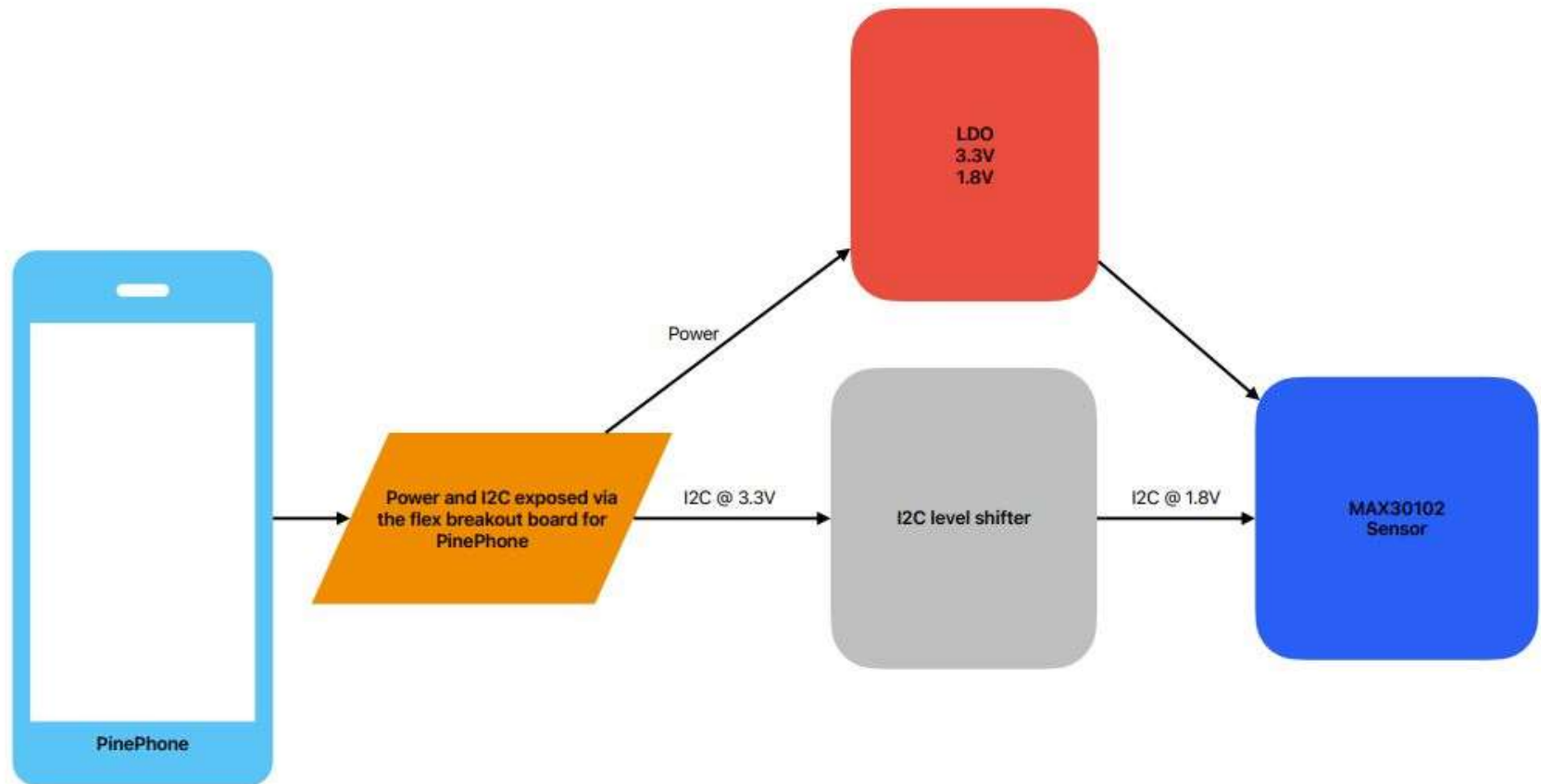


Block diagram

ブロック図

框圖

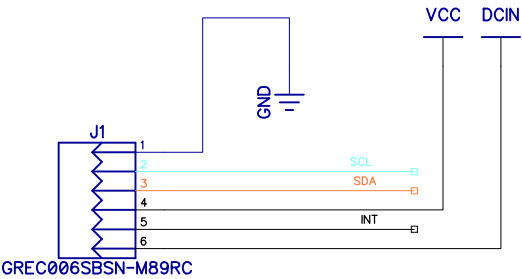


Title		
max30102 sensor board for PinePhone		
Size	Number	Rev
		1.0
		Drawn by jnavarro7
pinephone-max30102.dch		block_diagram

Header connectors

ヘッダーコネクタ

接頭连接器



Notes:
VCC and DCIN are two power sources coming from the PinePhone.
DCIN translates to power from USB-C charger
VCC outputs a regulated 5V power source

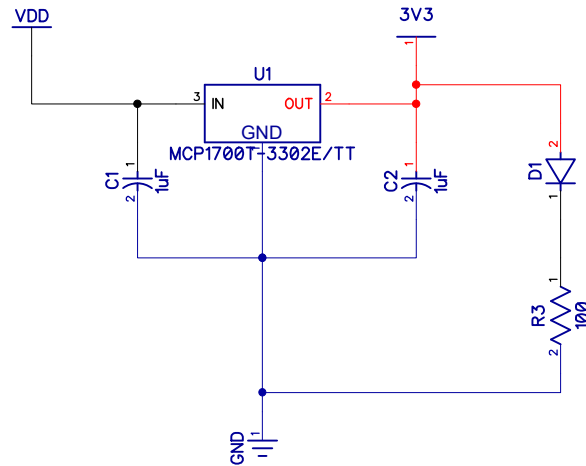
Title		
max30102 sensor board for PinePhone		
Size	Number	Rev
		1.0
		Drawn by jnavarro7
pinephone-max30102.dch		Headers

Power

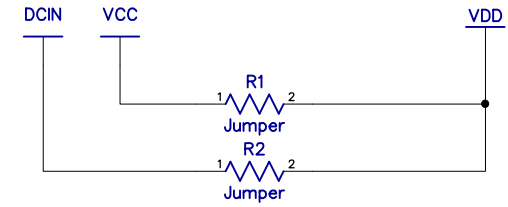
力

力量

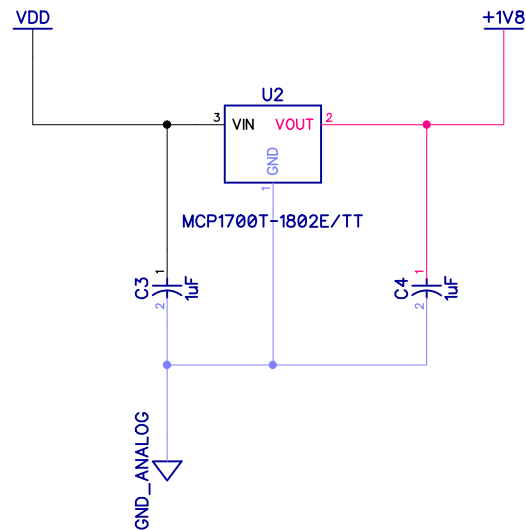
3.3V LDO



Power source selection



1.8V LDO



Notes:

R5, R6, R8 and R9 can be used to select power source from either VCC or DCIN.

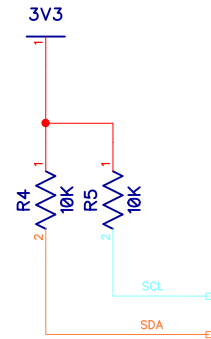
Title		
max30102 sensor board for PinePhone		
Size	Number	Rev
		1.0
		Drawn by jnavarro7
pinephone-max30102.dch		power

I2C Level Shifter

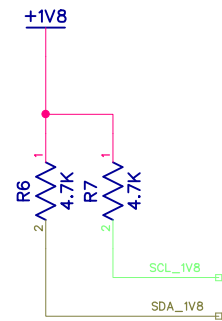
レベルシフター

電平轉換器

I2C 3.3V Pull-up Resistors

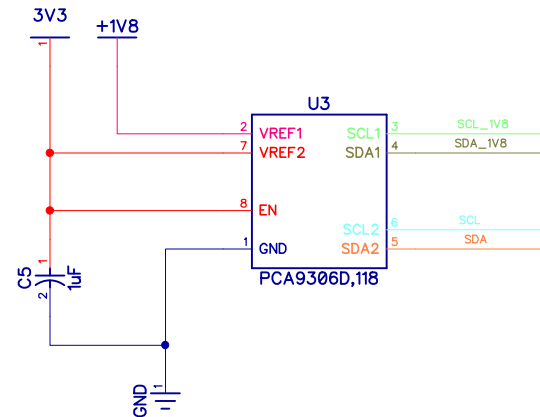


I2C 1.8V Pull-up Resistors



Bi-directional I2C level shifter
3.3V to 1.8V

VREF2 should be at least 1V higher than
VREF1 for best translation operation



Place bypass capacitor C9 close to VREF2 pin

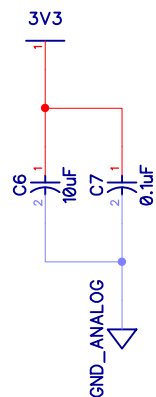
Title		
max30102 sensor board for PinePhone		
Size	Number	Rev
		1.0
		Drawn by jnavarro7
pinephone-max30102.dch		I2C level shifter

Pulse oximeter and heart-rate sensor

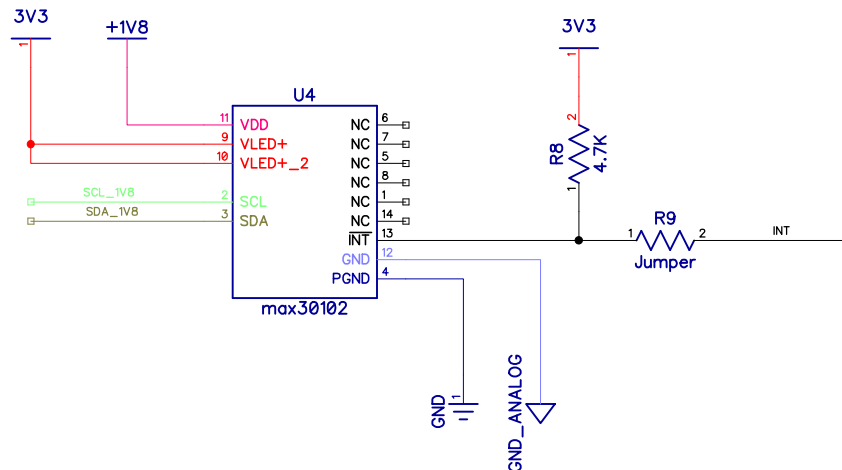
パルスオキシメーターと心拍数センサー

脈搏血氧儀和心率感測器

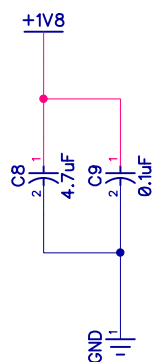
VLED+ and VLED+_2
Bypass capacitors



MAX30102 sensor

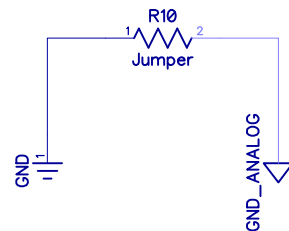


VDD Bypass capacitors



Place bypass capacitors
close to VDD pin of
MAX30102

Net tie for GND and
GND_ANALOG



Title

max30102 sensor board for PinePhone

Size

Number

Rev

1.0

Drawn by jnavarro7

pinephone-max30102.dch

max30102