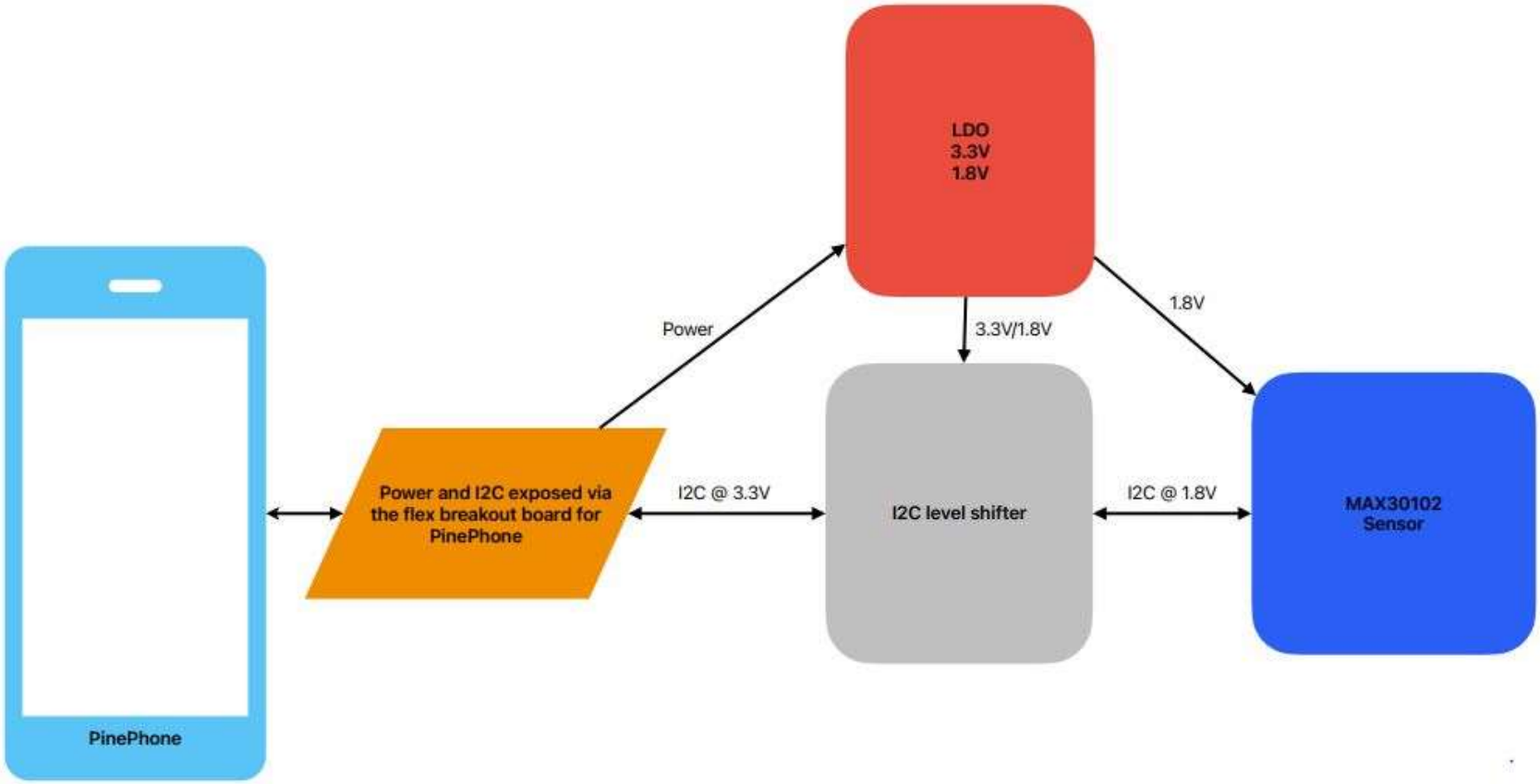
Block diagram

ブロック図

框圖

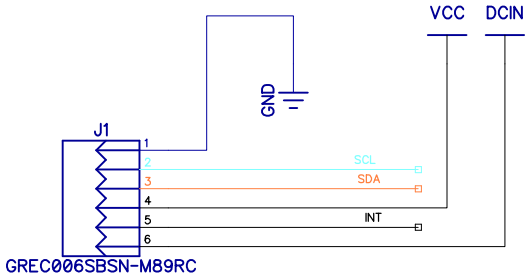


Title max30102 sensor board for PinePhone		
Size	Number	Rev 1.0
		Drawn by jnavarro7
pinephone-max30102.dch		block_diagram

Header connectors

ヘッダーコネクタ

接頭連接器



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

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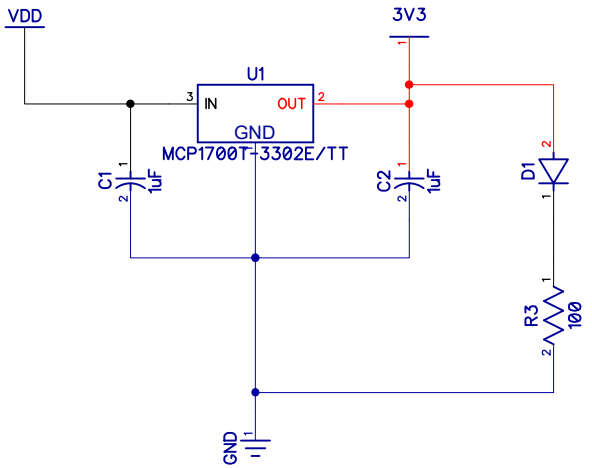
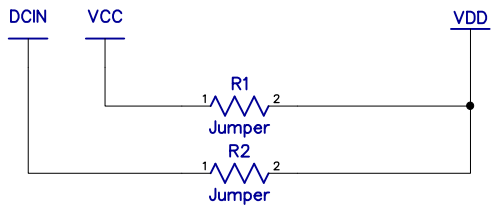
Power

力 力量

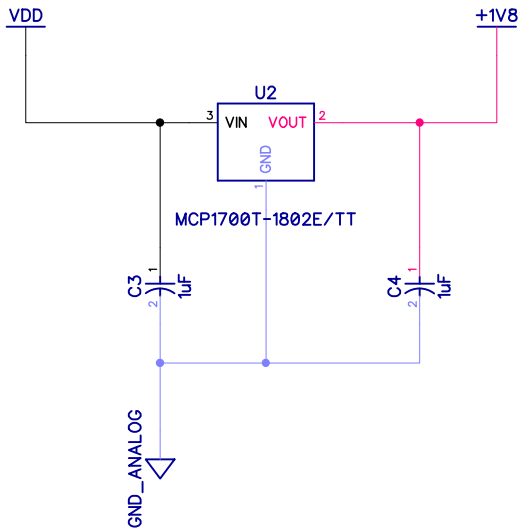
3.3V LDO



Power source selection



1.8V LDO



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

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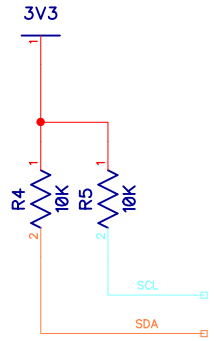
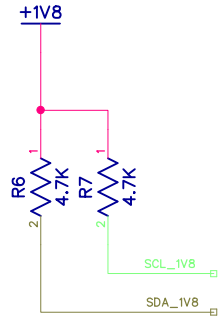
I2C Level Shifter
レベルシフター
電平轉換器

I2C 3.3V Pull-up Resistors

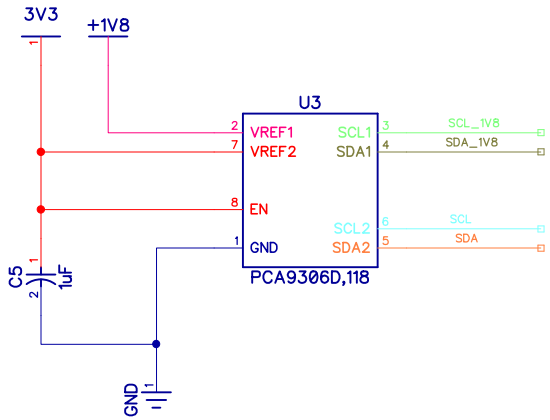


I2C 1.8V Pull-up Resistors



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

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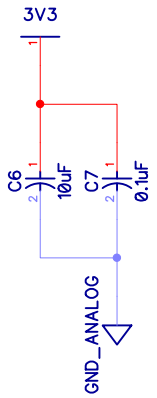
Size	Number	Rev: 1.0
		Drawn by jnavarro7
pinephone-max30102.dch		I2C level shifter

Pulse oximeter and heart-rate sensor

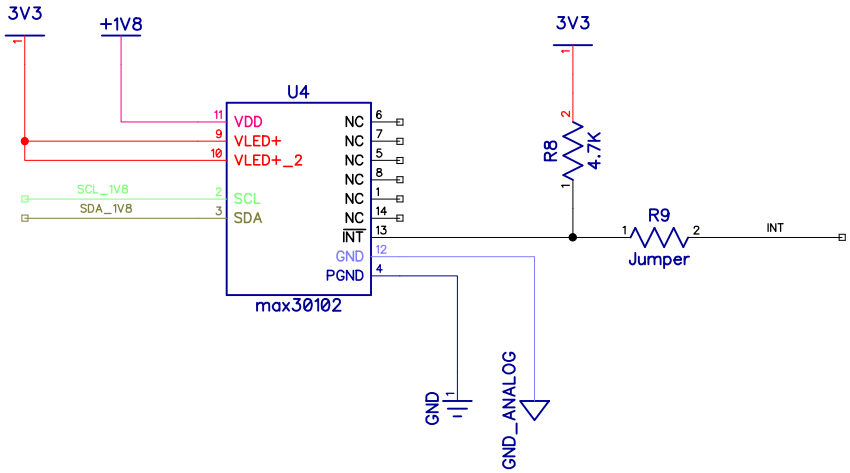
パルスオキシメーターと心拍数センサー

脈搏血氧儀和心率感測器

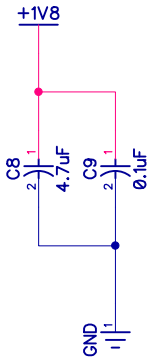
VLED+ and VLED+_2 Bypass capacitors



MAX30102 sensor

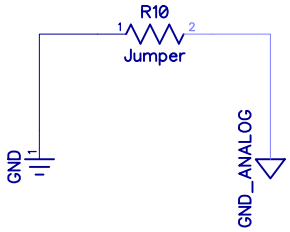


VDD Bypass capacitors



Place bypass capacitors close to VDD pin of MAX30102

Net tie for GND and GND_ANALOG



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pinephone-max30102.dch		max30102