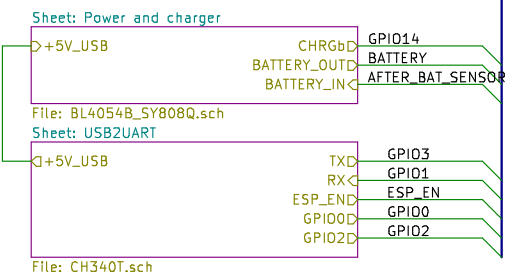


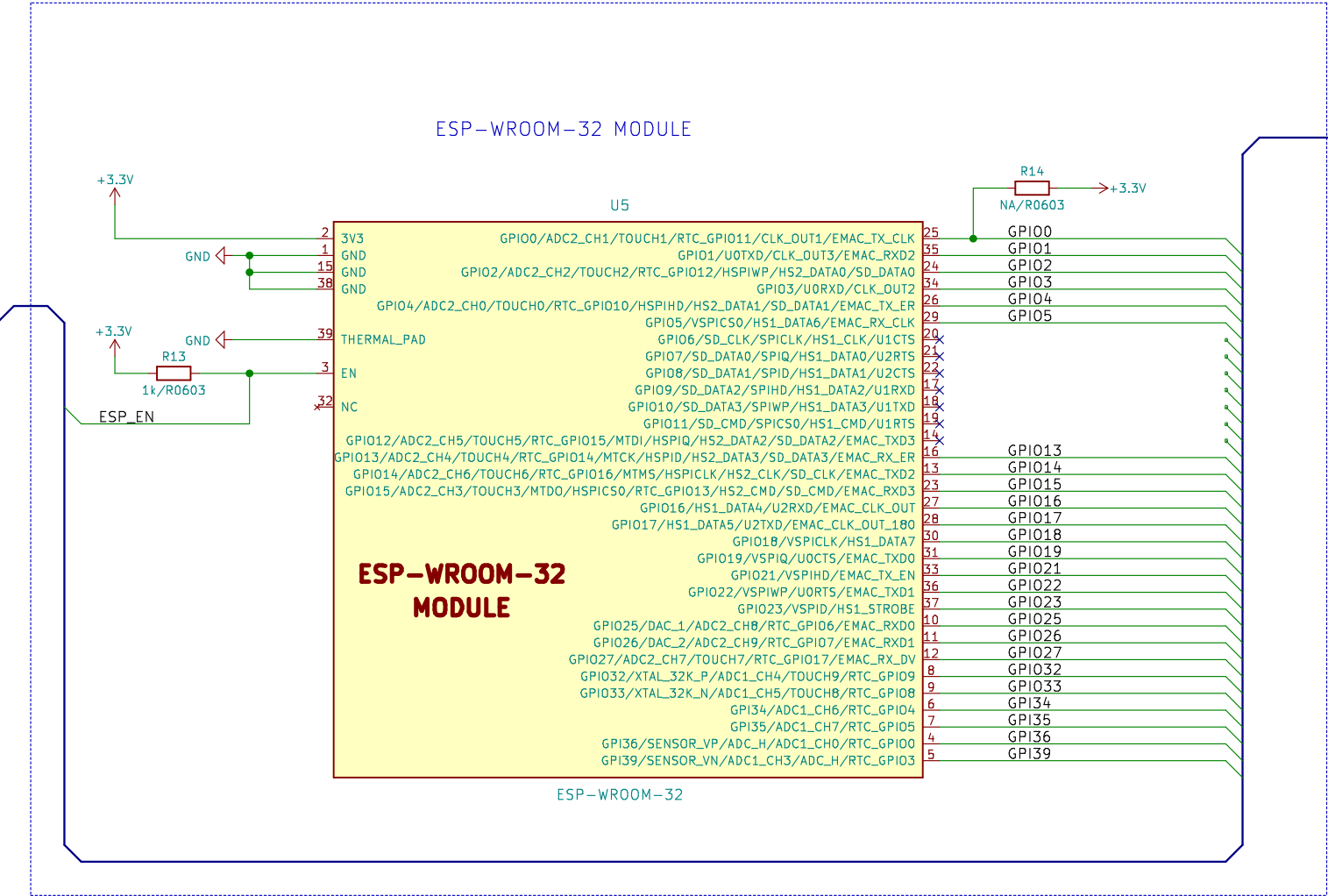
Fiducials:



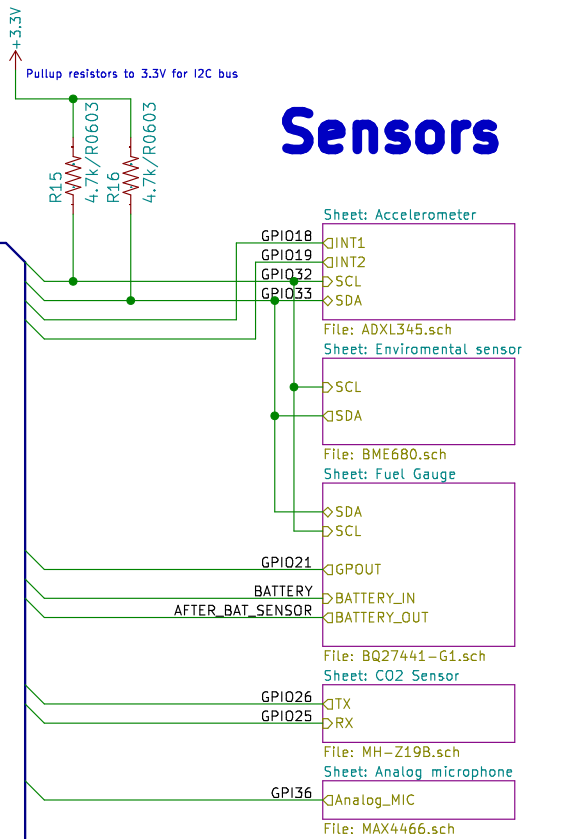
Power



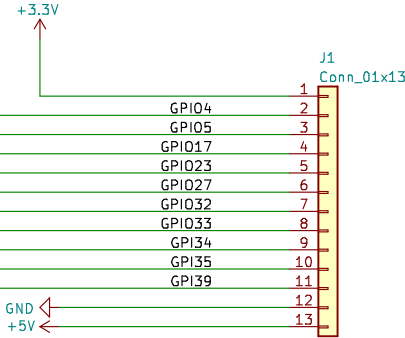
ESP-WROOM-32 MODULE



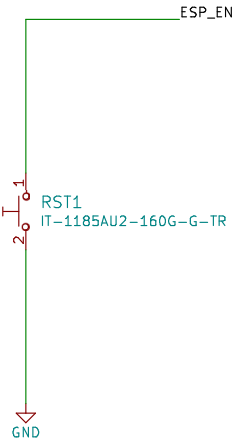
Sensors



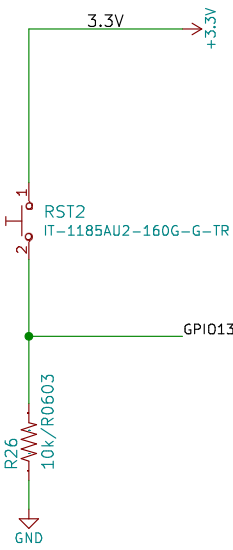
Extensions



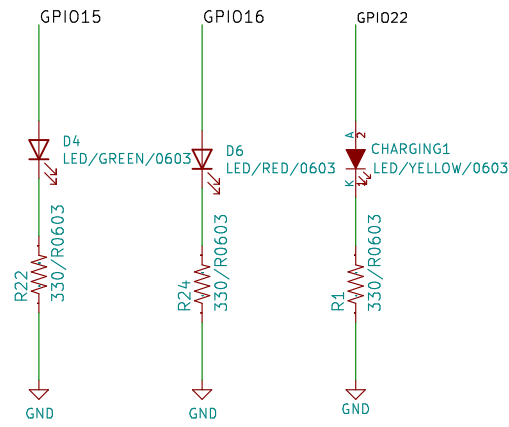
Reset Button



Application button



Application LEDs



https://www.himinds.com

HIMinds

Sheet: /

File: hm-env-sensor.sch

Title: hm-env-sensor

Size: A3

Date: 2020-06-04

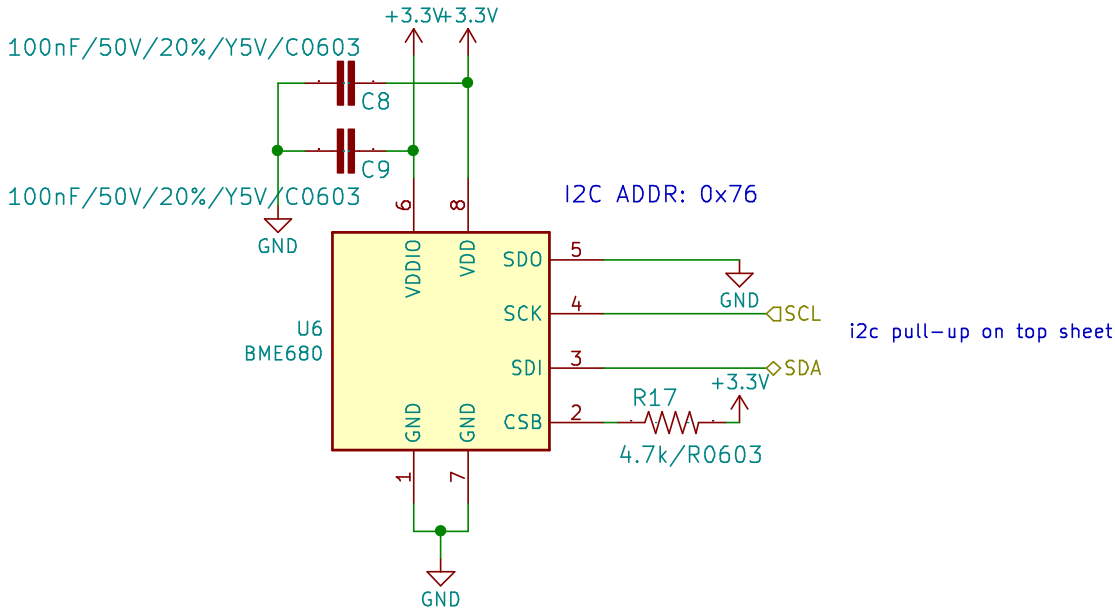
Rev: B

KiCad E.D.A. kicad 5.1.6-c6e7f7d86ubuntu18.04.1

Id: 1/8

NOTE: Contain temperature sensor.  
Take care of the layout to prevent conducted heating in PCB affecting the reading.

BME680



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**HiMinds**

Sheet: /Enviromental sensor/

File: BME680.sch

**Title: hm-env-sensor**

Size: A4

Date: 2020-06-04

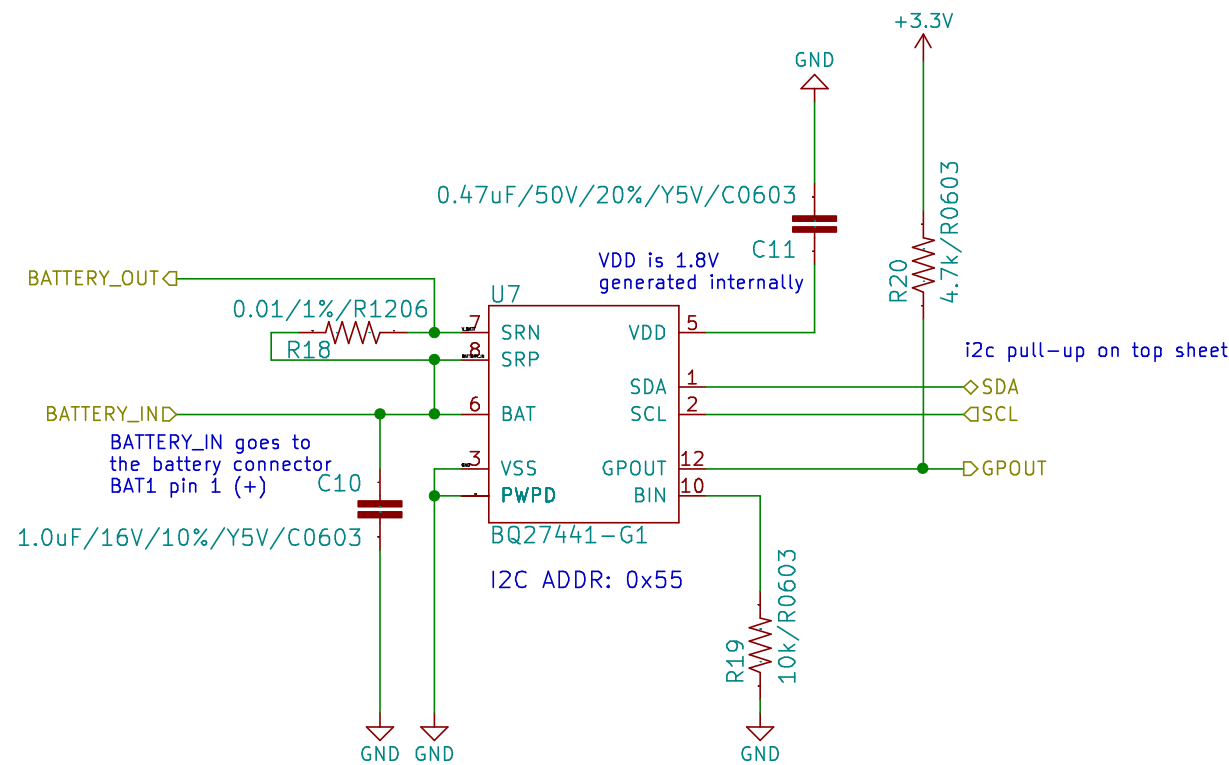
**Rev: B**

KiCad E.D.A. kicad 5.1.6-c6e7f7d86ubuntu18.04.1

Id: 2/8

BQ27441-G1 Fuel Gauge

NOTE: Contain temperature sensor.  
Take care of the layout to prevent conducted heating in PCB affecting the reading.



<https://www.himinds.com>

**HiMinds**

Sheet: /Fuel Gauge/

File: BQ27441-G1.sch

**Title: hm-env-sensor**

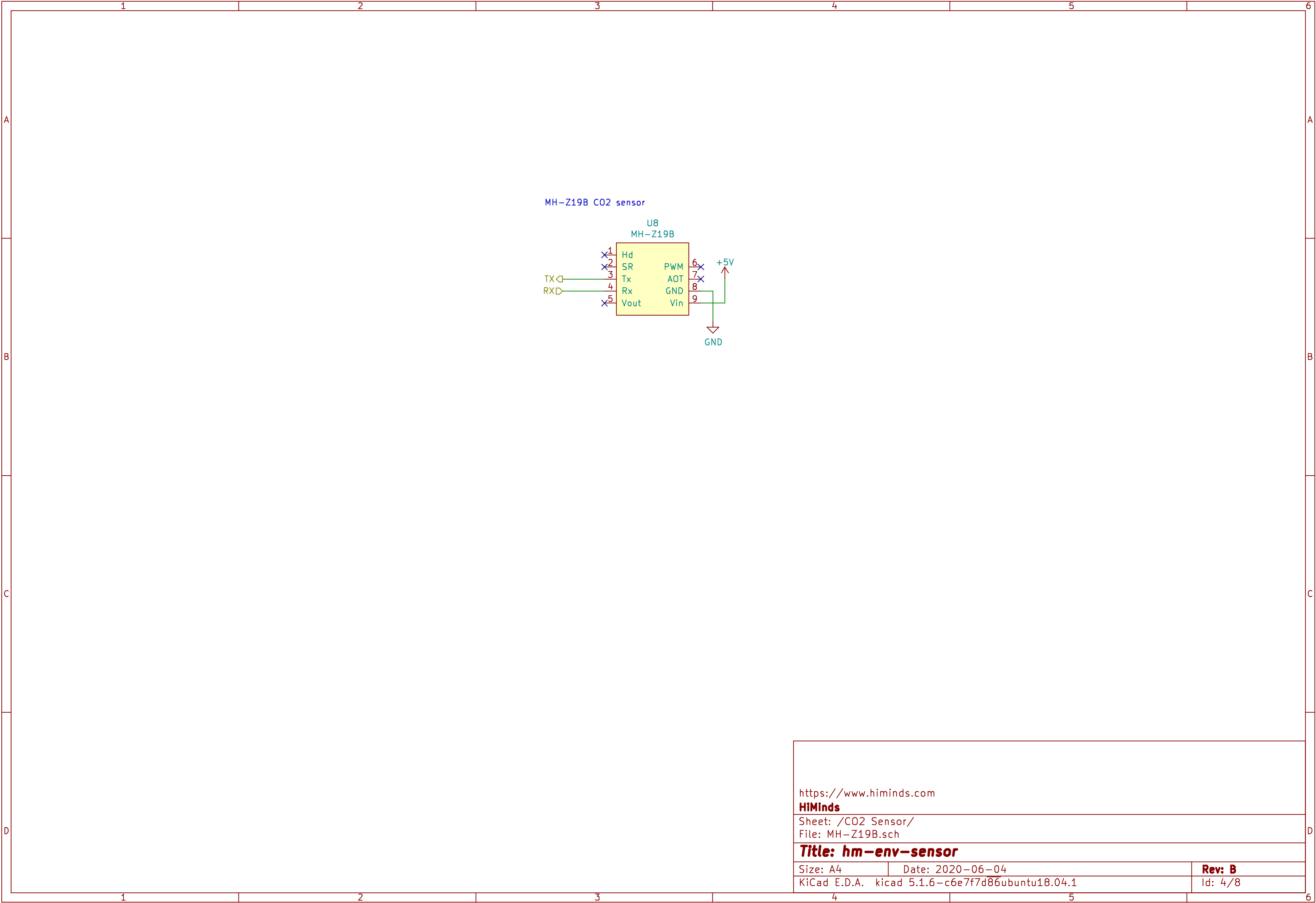
Size: A4

Date: 2020-06-04

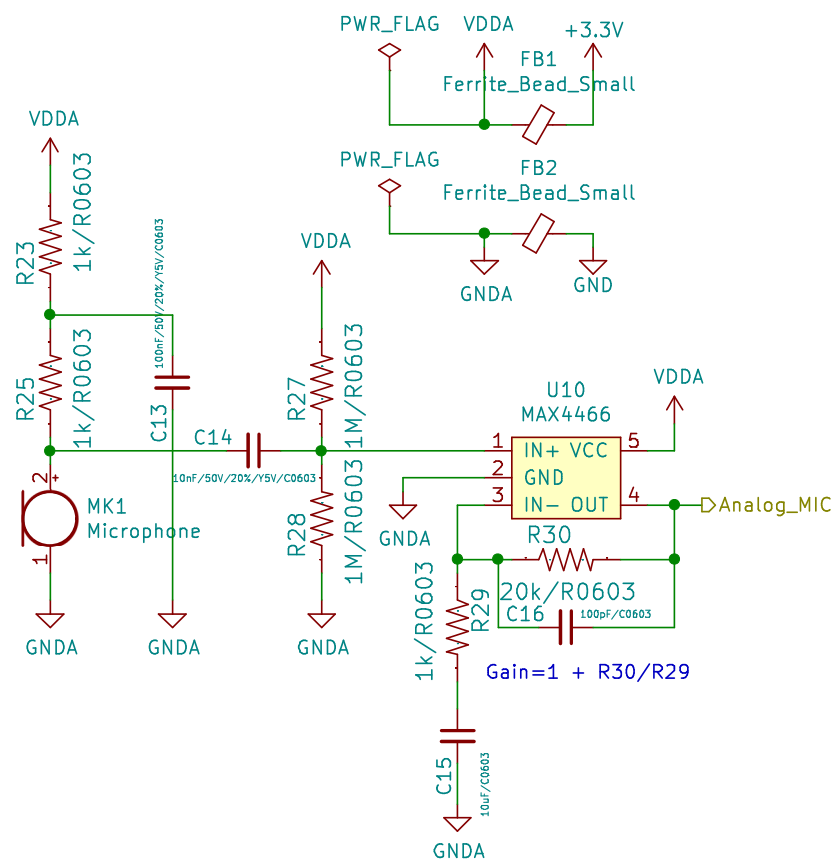
**Rev: B**

KiCad E.D.A. kicad 5.1.6-c6e7f7d86ubuntu18.04.1

Id: 3/8



Analog Microphone



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**HiMinds**

Sheet: /Analog microphone/

File: MAX4466.sch

**Title: hm-env-sensor**

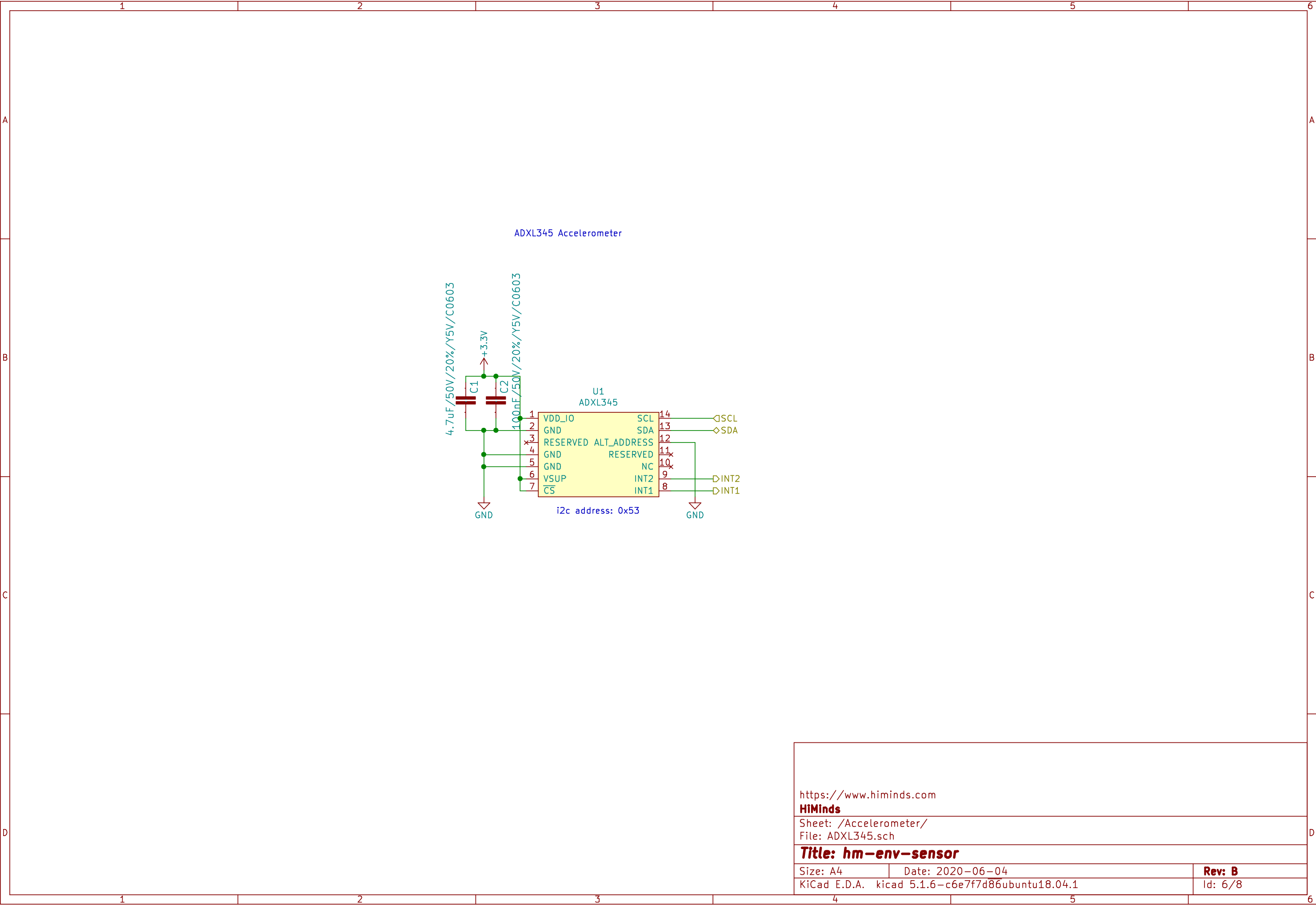
Size: A4

Date: 2020-06-04

**Rev: B**

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Id: 5/8



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**HiMinds**

Sheet: /Accelerometer/

File: ADXL345.sch

**Title: hm-env-sensor**

Size: A4

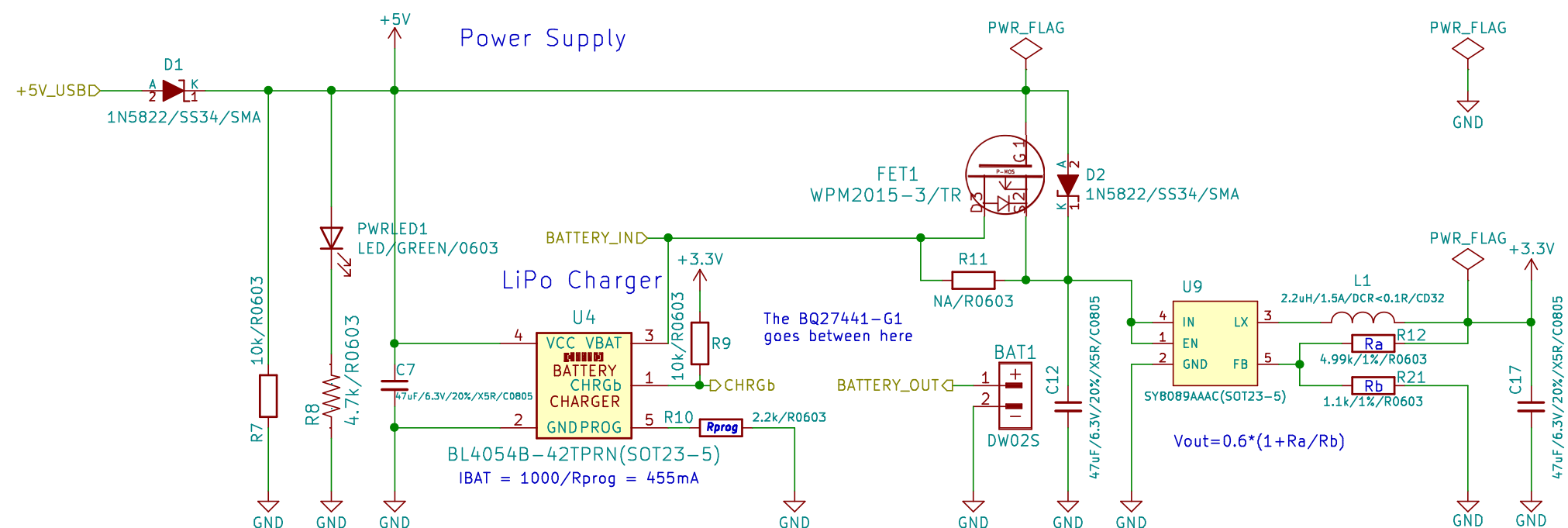
Date: 2020-06-04

**Rev: B**

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Id: 6/8

# Investigate boost converter



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## HiMinds

Sheet: /Power and charger/

File: BL4054B\_SY808Q.sch

**Title:** hm-env-sensor

Size: A4

Date: 2020-06-04

**Rev: B**

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Id: 7/8

USB to UART

+5V\_USB

USB-UART1

VBUS

D-

D+

ID

GND

GND

MISB-SWMM-5B-LF(USB\_MICRO)

GND

GND

GND

+3.3V

C5

C6

22uF/6.3V/20%/X5R/C0603

100nF/50V/20%/Y5V/C0603

GND

GND

C3

C4

27pF/50V/5%/C0G/C0603

27pF/50V/5%/C0G/C0603

Q1

Q12MHz/20pF/10ppm/4P/3.2x2.5mm

U2

CH340T(SSOP20W)

VCC

V3

GND

UD-

UD+

XI

XO

TXD

RXD

RTS#

CTS#

DTR#

DSR#

DCD#

RI#

NOS#

IR#

R2

R3

220R/R0603

220R/R0603

R4

1k/R0603

Q2

BC817-40(SOT23)

R5

1k/R0603

Q3

BC817-40(SOT23)

R6

220R/R0603

U3

BAT54C(SOT23-3)

GND1

D\_Com1

GND

D\_Com

GPI00

GPI02

Auto program

DTR	RTS->EN	IO0
1	1	1
0	0	1
1	0	1
0	1	0

https://www.himinds.com

**HIMinds**

Sheet: /USB2UART/

File: CH340T.sch

**Title: hm-env-sensor**

Size: A4

Date: 2020-06-04

KiCad E.D.A. kicad 5.1.6-c6e7f7d86ubuntu18.04.1

Rev: B

Id: 8/8

Id: 8/8