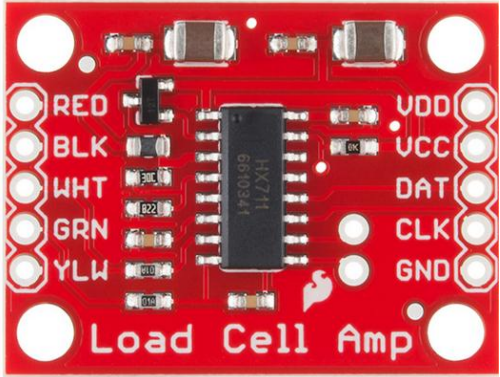
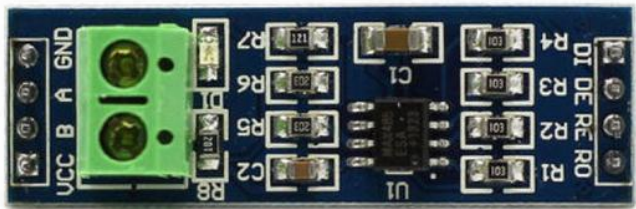
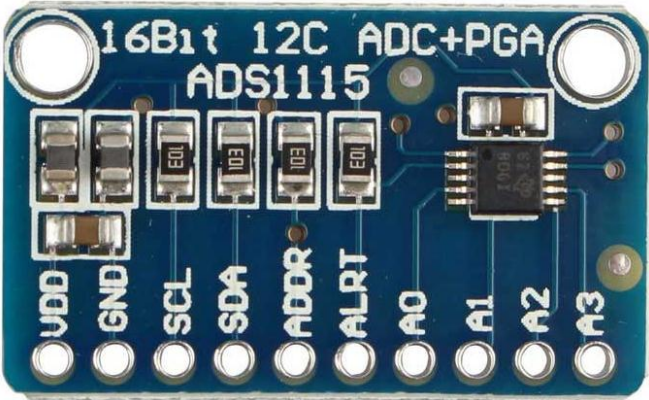
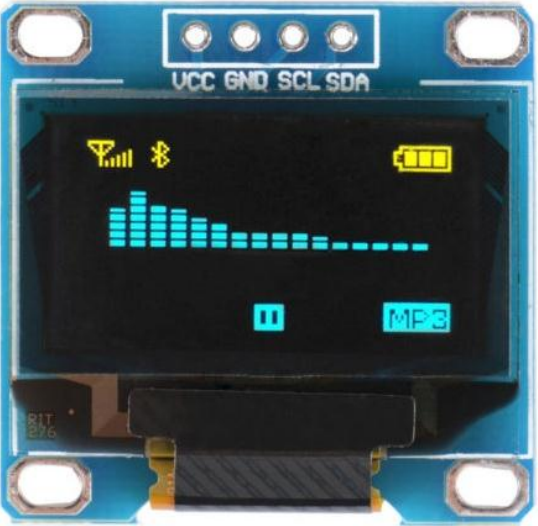

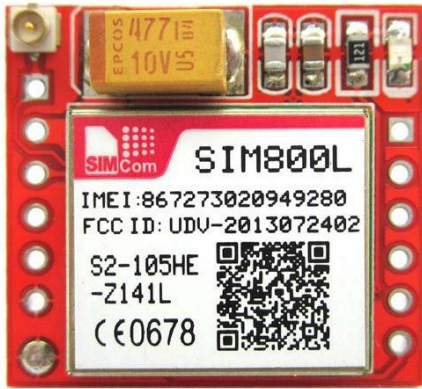

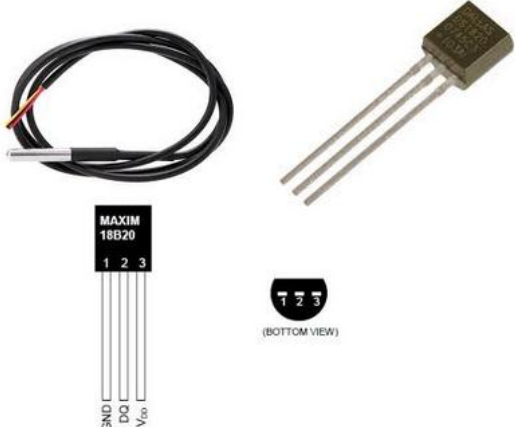
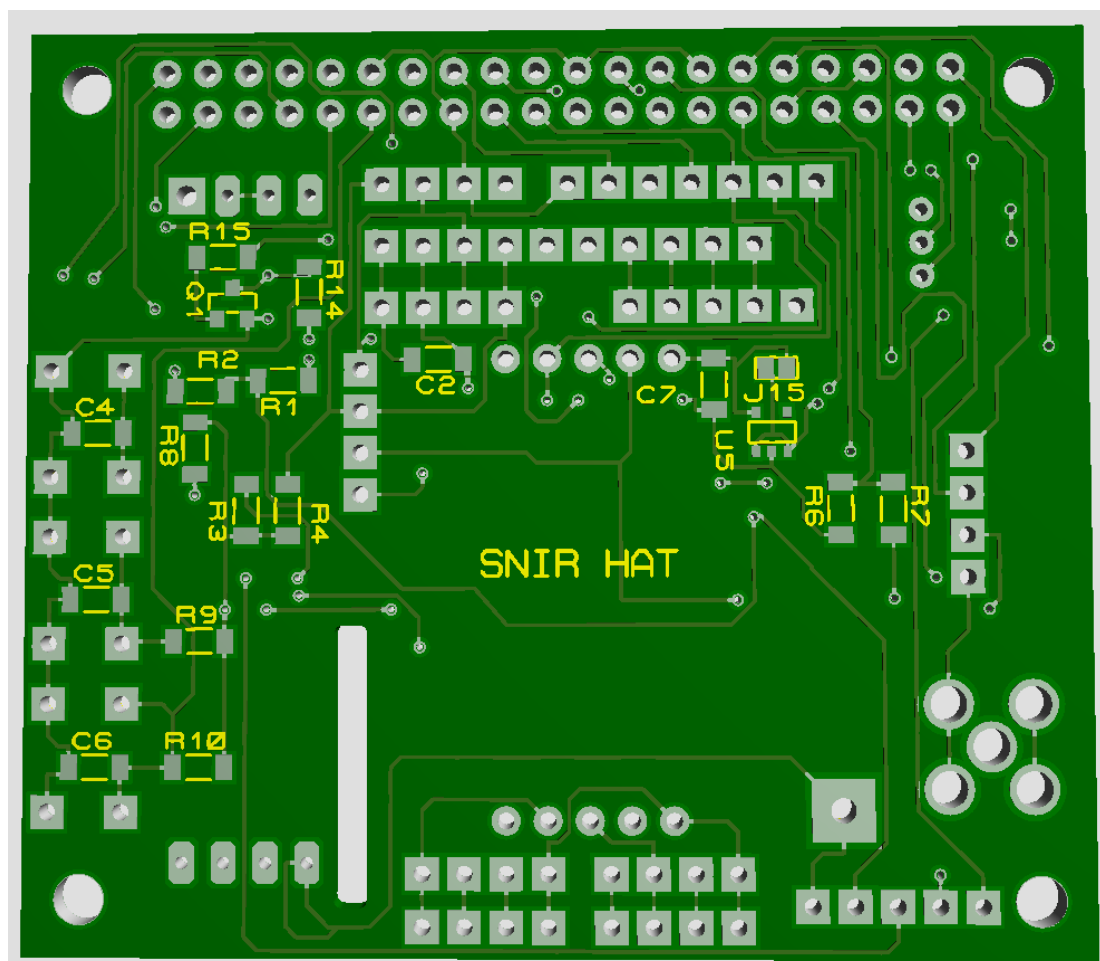
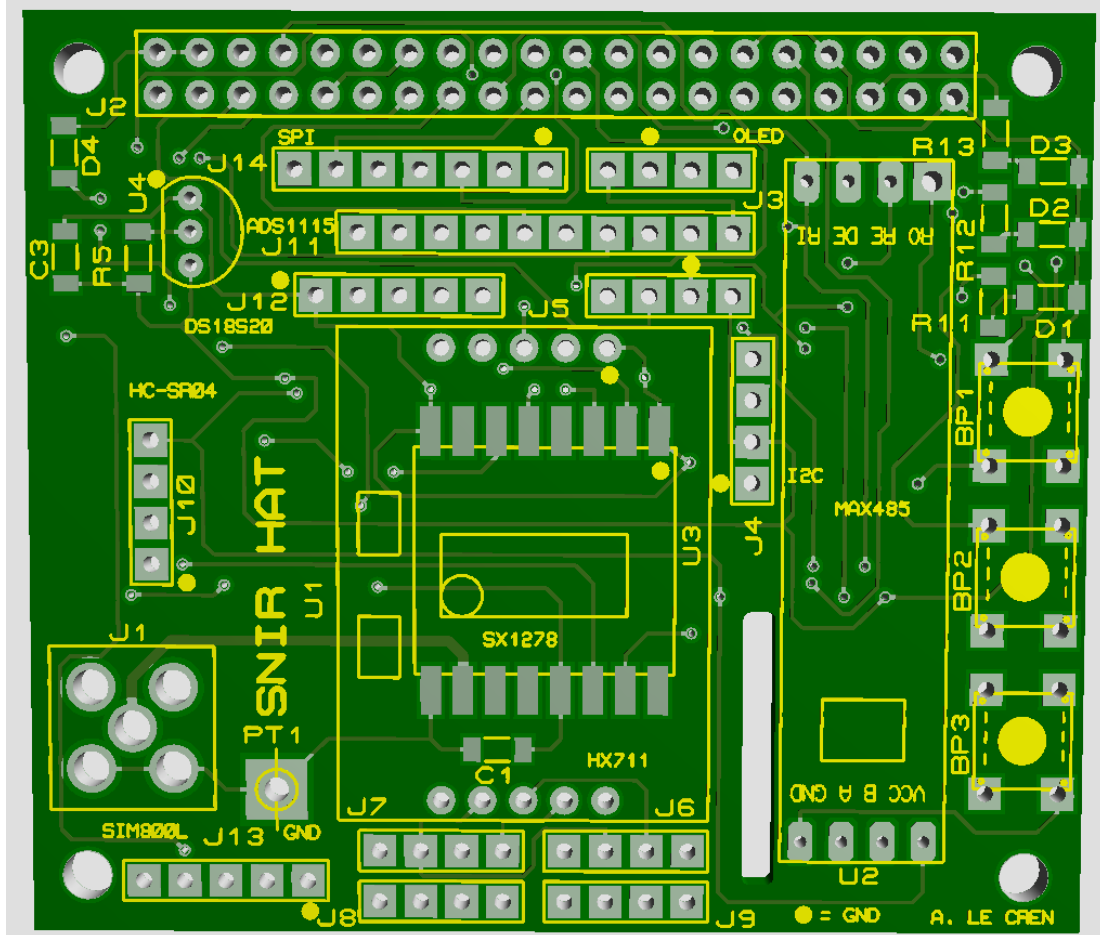


SNIR HAT

Le circuit imprimé SNIR HAT est une carte fille pour RPI 3 supportant les modules suivants

<p>Conditionneur des capteurs de force HX711 BUS SPI</p> <p>Connecteur U1</p>	 <p>A red PCB module for the HX711 load cell amplifier. It features a central black chip labeled 'HX711 660341'. On the left, there are five pins labeled RED, BLK, WHT, GRN, and YLW. On the right, there are five pins labeled VDD, VCC, DAT, CLK, and GND. The text 'Load Cell Amp' is printed at the bottom.</p>
<p>Module RS485 (MAX485) UART ttyAMA0</p> <p>Connecteur U2</p>	 <p>A blue PCB module for the MAX485 RS485 transceiver. It features a central black chip labeled 'MAX485'. On the left, there are two pins labeled UCC B and A GND. On the right, there are eight pins labeled R4, R3, R2, R1, R7, R6, R5, and R8. The text 'MAX485' is printed on the chip.</p>
<p>Convertisseur analogique numérique 16 bits ADC 16 bits ADS1115 BUS I²C</p> <p>Connecteur J11</p>	 <p>A blue PCB module for the ADS1115 16-bit ADC. It features a central black chip labeled 'ADS1115'. On the left, there are four pins labeled UDD, GND, SCL, and SDA. On the right, there are four pins labeled ADDR, ALRT, A0, A1, A2, and A3. The text '16Bit 12C ADC+PGA' and 'ADS1115' are printed on the chip.</p>
<p>OLED display module 0.96" inches Résolution 128X64 BUS I²C</p> <p>Connecteur J3</p>	 <p>A blue PCB module for a 0.96 inch OLED display. It features a black display screen showing a blue bar chart and the text 'MP3'. On the left, there are four pins labeled UCC, GND, SCL, and SDA. The text '0.96 inch' is printed on the PCB.</p>

<p>LoRa Wireless module SX1278</p> <p>433MHZ</p> <p>Bus SPI + GPIO</p> <p>Module à souder, Emplacement U3</p>	
<p>Sim800L</p> <p>Quad-band 850/900/1800/1900MHz</p> <p>Connect onto any global GSM network with any 2G SIM</p> <p>Make and receive voice calls using a headset or an external 8 speaker and electret microphone</p> <p>Send and receive SMS messages</p> <p>Send and receive GPRS data (TCP/IP, HTTP, etc.)</p> <p>Scan and receive FM radio broadcasts</p> <p>Lead out buzzer and vibrational motor control port</p> <p>AT command interface with "auto baud" detection</p> <p>UART ttyAMA0</p> <p>Connecteur J13</p>	
<p>Capteur ultra-son</p> <p>HC-SR04</p> <p>GPIO</p> <p>Connecteur J10</p>	
<p>Capteur de température one Wire</p> <p>DS18S20 ou DS18B20</p> <p>-55 °C à +125 °C TO-92</p> <p>GPIO</p> <p>Emplacement U4</p>	



GPIO HEADER

Modell B+					
3.3V	3V Power	1	2	5V Power	5V
I ² C : SDA	GPIO2 SDA1I2C	3	4	5V Power	5V
I ² C : SCL	GPIO3 SCL1I2C	5	6	Ground	GND
U3 DIO.0 (entrée)	GPIO4	7	8	GPIO14 UART0_TXD	TX (sortie)
GND	Ground	9	10	GPIO15 UART0_RXD	RX (entrée)
U3 Reset	GPIO17	11	12	GPIO18 PCM_CLK	SIM800I Reset
DS18S20 (bi-direc)	GPIO27	13	14	Ground	GND
ADS1115 DRYADC (entrée)	GPIO22	15	16	GPIO23	(entrée)
3.3V	3V Power	17	18	GPIO24	HC-SR04 Trig
MOSI (sortie)	GPIO10	19	20	Ground	GND
MISO (entrée)	GPIO9	21	22	GPIO25	U3 NSS (sortie)
CLK (sortie)	GPIO11	23	24	GPIO8 SPI0_CE0_N	SPI CE0 (sortie)
GND	Ground	25	26	GPIO7 SPI0_CE1_N	SPI CE1 (sortie)
NC	ID_SD I2C ID EEPROM	27	28	ID_SC I2C ID EEPROM	NC
BP1 (entrée)	GPIO5	29	30	Ground	GND
BP2 (entrée)	GPIO6	31	32	GPIO12	U3 DIO.1 (entrée)
BP3 (entrée)	GPIO13	33	34	Ground	GND
Led D3 (sortie)	GPIO19	35	36	GPIO16	NC
Led D2 (sortie)	GPIO26	37	38	GPIO20	NC
GND	Ground	39	40	GPIO21	Led D1 (sortie)

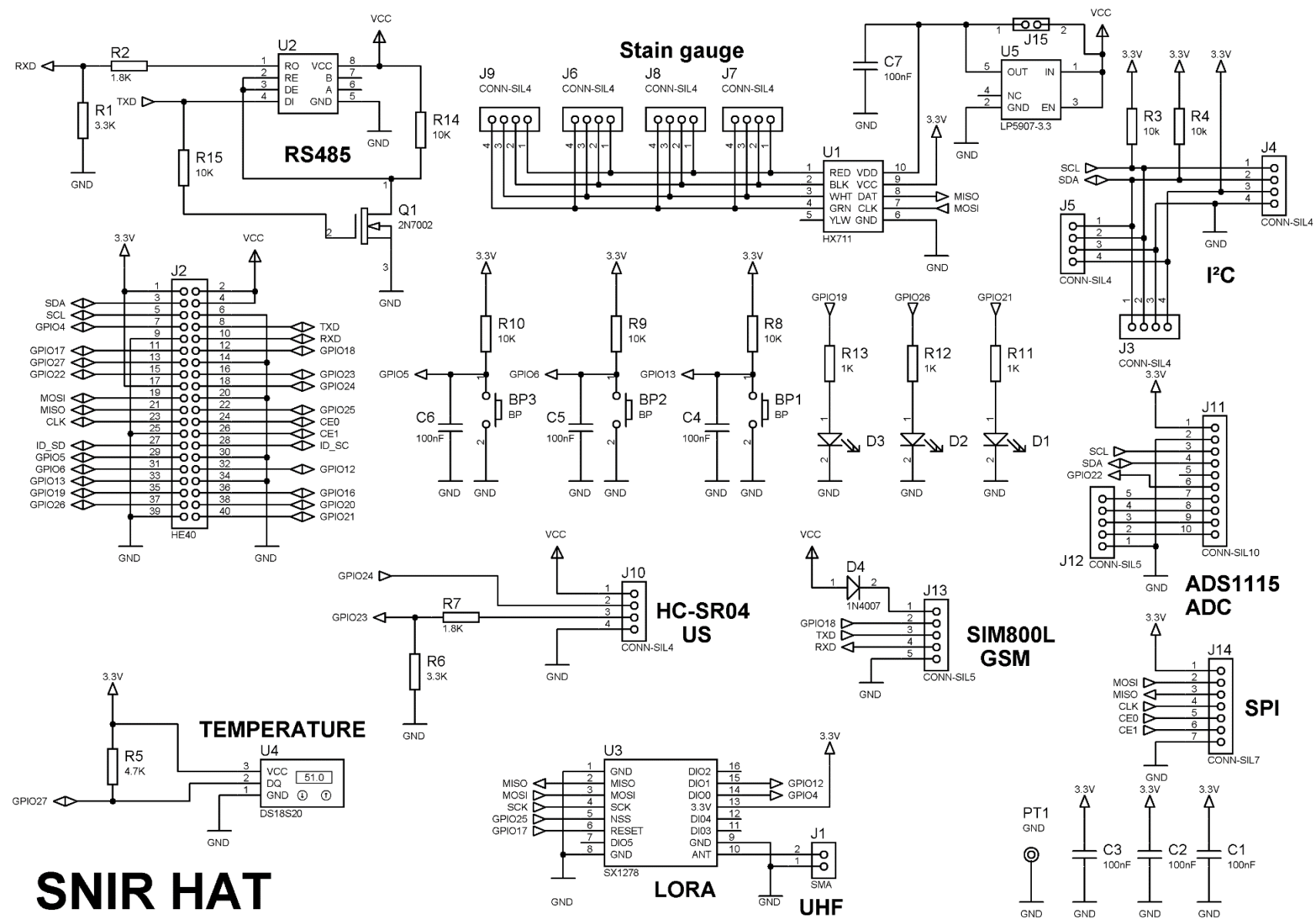


Attention au sens de connexion des modules.

Il n'y a pas de détrompeur

Bill Of Materials

Category	Quantity	Reference	Value	CASE
Resistors	2	R1, R6	3.3K	SMD 1206
Resistors	2	R2, R7	1.8K	SMD 1206
Resistors	7	R3, R4, R8-R10, R14, R15	10k	SMD 1206
Resistors	1	R5	4.7K	SMD 1206
Resistors	3	R11-R13	1K	SMD 1206
Capacitors	7	C1-C7	100nF	SMD 1206
Integrated Circuits	1	U1	HX711	Module
Integrated Circuits	1	U2	MAX485	SOIC 8
Integrated Circuits	1	U3	SX1278	Module
Integrated Circuits	1	U4	DS18S20	TO-92
Integrated Circuits	1	U5	LP5907-3.3	SOT23-5
Transistors	1	Q1	2N7002	SOT23
Diodes	3	D1-D3	LED	SMD 1206
Diodes	1	D4	1N4007	SMD 1206
Miscellaneous	3	BP1-BP3	BP	
Miscellaneous	1	J1	SMA	FEM 90°
Miscellaneous	1	J2	HE40	FEM
Miscellaneous	8	J3-J10	CONN-SIL4	FEM
Miscellaneous	1	J11	CONN-SIL10	FEM
Miscellaneous	2	J12, J13	CONN-SIL5	FEM
Miscellaneous	1	J14	CONN-SIL7	FEM
Miscellaneous	1	J15	PAD	
Miscellaneous	1	PT1	GND	TEST POINT



SNIR HAT

A. LE CREN