

GEVINO Arduino ZERO M0 Compatible

doc v1.5

CPU ATSAMD21G18 - Arduino ZERO M0 compatible.

Micro USB.

Pin to pin Arduino ZERO - M0.

Removable Terminals.

VCC, Input from 7V to 20V

4 terminals, Digital Input /Analog Input

Digital input with LED, need to bring VCC.

Analog 1Vfs, 6.8Vfs, 22Vfs

4 terminals, Digital Input / Digital Output

Digital input with LED + Protection diode, , need to bring VCC.

9A 12V Output Mosfet Vcc, protection diode. We advise you not to exceed 6A

Optional:

WiFi modem ESP-01 ESP8266

GSM modem SIM800L

Bluetooth module HC-09

RS232 DB9 module

Ethernet Module

TFT touch

LIN Bus IC - Atmel ATA663211 – Need to be solder on the PCB

Zero bootloader included

M0 bootloader on request – On M0 don't forget that D2 and D4 are exchanged

A to Z, Aw to Dw, Ab to Db, Vo, Are soldering Jumper, see table for their use.



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Jumper Table Highlight = default **Bold Red = Jumper Closed**

[illegible]

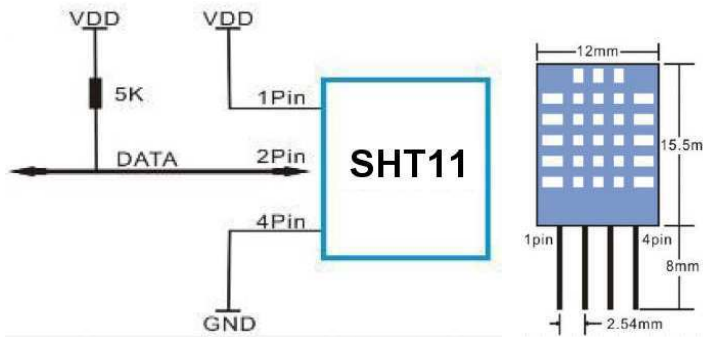
Pinout Table

Arduino	Uno	Leonardo	M0 - Zero	TFT	Ethernet	GEVA	SIM800 L	HC-Bt ESP-WiFi
D0 RxD	PD0 Rx	PD2 Rx	PA11 Rx Serial1			In/Out M4 SD-cs		TxD
D1 TxD	PD1 Tx	PD3Ttx	PA10 Tx Serial1			In/Out M3		RxD
D2	PD2	PD1 SDA	~PA8-14	D2	IRQ opt	In/Out M2		
D3	~PD3	~PD0 SCL	~PA9	D3		In/Out M1		
D4	PD4	PD4	~PA14-8 (A6)	D4	SD-cs	In/Out M4		
D5	~PD5	~PC6	~PA15	D5		In/Out M3		
D6	~PD6	~PD7	~PA20 (A8)	D6				
D7	PD7	PE6	~PA21	D7				
D8	PB0	PB4	~PA6 (A9)	D0				
D9	~PB1	~PB5	~PA7 (A10)	D1				
D10	~PB2 ss	~PB6	~PA18 (A11)	SD-ss	SS	SD-cs		
D11	~PB3 mosi	~PB7	~PA16	SD-di				
D12	PB4 miso	PD6	~PA19 (A7)	SD-do				
D13	PB5 sck	~PC7	~PA17 LED	SD-sck		L Led		
D14		PB0 ss						
D15		PB1 sck						
D16		PB2 mosi						
D17		PB3 miso						
AREF	AREF		PA03-AREF					
SDA	PC4 SDA	PD1 SDA	PA22 (D32)			In/Out M2		
SCL	PC5 SCL	PD0 SCL	PA23			In/Out M1		
A0	PC0	PF7	PA02 DAC	RD		In M8		
A1	PC1	PF6	PB08	WR		In M7		
A2	PC2	PF5	PB09	RS		In M6		
A3	PC3	PF4	PA04	CS		In M5		
A4	PC4 SDA	PF1	PA05	RST				
A5	PC5 SCL	PF0	PB02					
ICSP								
MISO	PB4	PB3	PB12-MISO		MISO	SD-miso		
SCK	PB5	PB1	PB11-SCK (D24)		SCK	SD-sck		
MOSI	PB3	PB2	PB10-MOSI (D23)		MOSI	SD-mosi		
RESET	RESET	RESET	RESET					
Other								
			Serial				SIM800	
			RXD				TxD	TxD
			TXD				RxD	RxD
D38			PA13				Reset	
D25			PB3			Rx Led		
D26			PA27			Tx Led		
		PD5 txled						
		PB0 rxled						
		PE2 HWB						
D21			PA12					
D30			PB22					
D31			PB23					
D27			PA28					
not defined			PA30					
not defined			PA31					
D25			PB3 (D25)					

Resources:

https://github.com/arduino/ArduinoCore-samd/blob/master/variants/arduino_zero/variant.cpp

SHT11



Data -> M8 TTL In Out

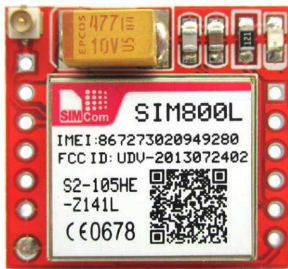
VDD -> M6 3.3V out

GND -> GND

20-90% relative humidity, of 0-50 degrees Celsius temperature

http://www.adrirobot.it/sensori/sensore_dht11/sensore_dht11.htm

SIM800L



Quad-band: AutoBand, GSM 850, EGSM 900, DCS 1800, PCS 1900.

Compliant to GSM Phase 2/2+

Class 4 (2W) at GSM 850 and EGSM 900

Class 1 (1W) at DCS 1800 and PCS 1900

GPRS multi-slot class 12

GPRS data downlink transfer: max. 85.6 kbps

GPRS data uplink transfer: max. 85.6 kbps

Coding scheme: CS-1, CS-2, CS-3 and CS-4

PAP protocol for PPP connect.

Integrate the TCP/IP protocol.

Support Packet Broadcast Control Channel (PBCCH)

CSD trasmission rates: 2.4, 4.8, 9.6, 14.4 kbps

Support SIM card: 1.8V, 3V

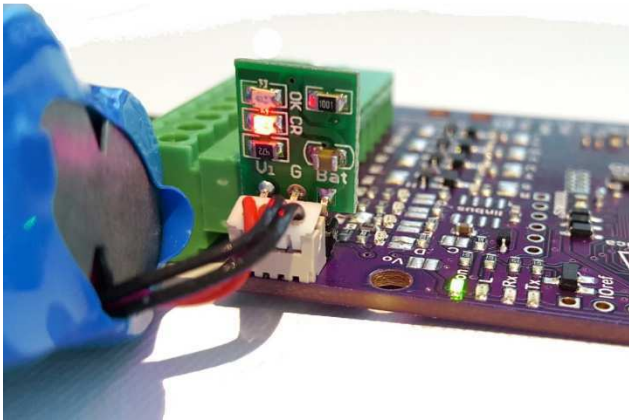
Battery backup and battery charger



Batt = 4.2V LiPo Battery + Hirose Connector DF13C-4P

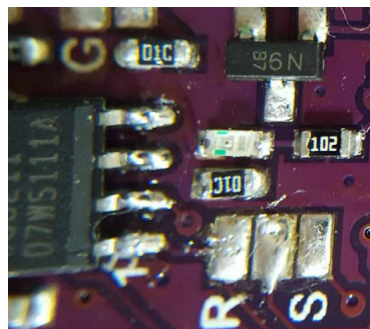
Chrg = Battery Charger

18650 LiPo battery, with PCM (Protection Circuit). 7000mA/H



LinBus:

Add Pullup 1K resistor. Open RS jumper. (We can add for you IC and resistor)



Library:

EEPROM

<https://github.com/cmagle/FlashStorage>

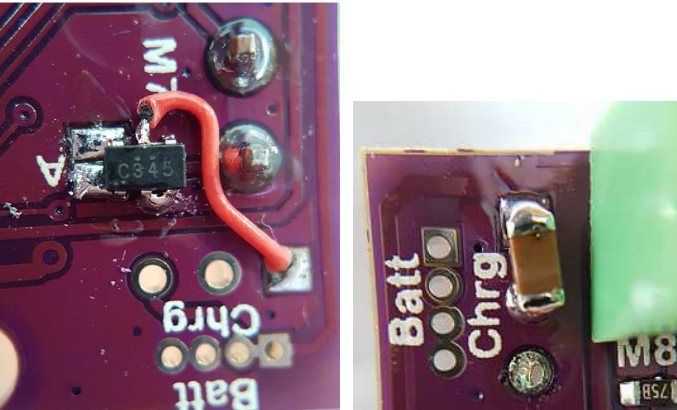
WiFi

<https://github.com/ekstrand/ESP8266wifi>

PixLed

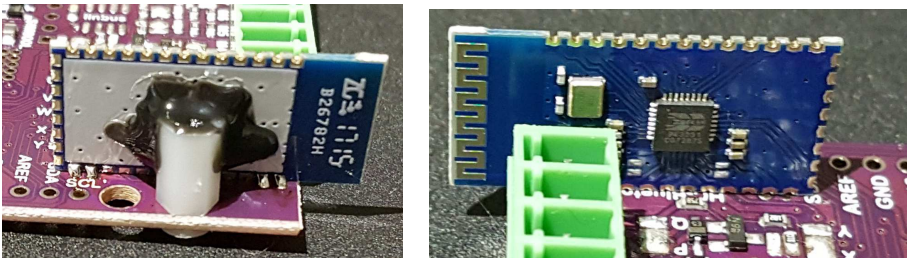
For buffer Data of PixLed Adressable, from 3.3V to 5V, on M8 terminal

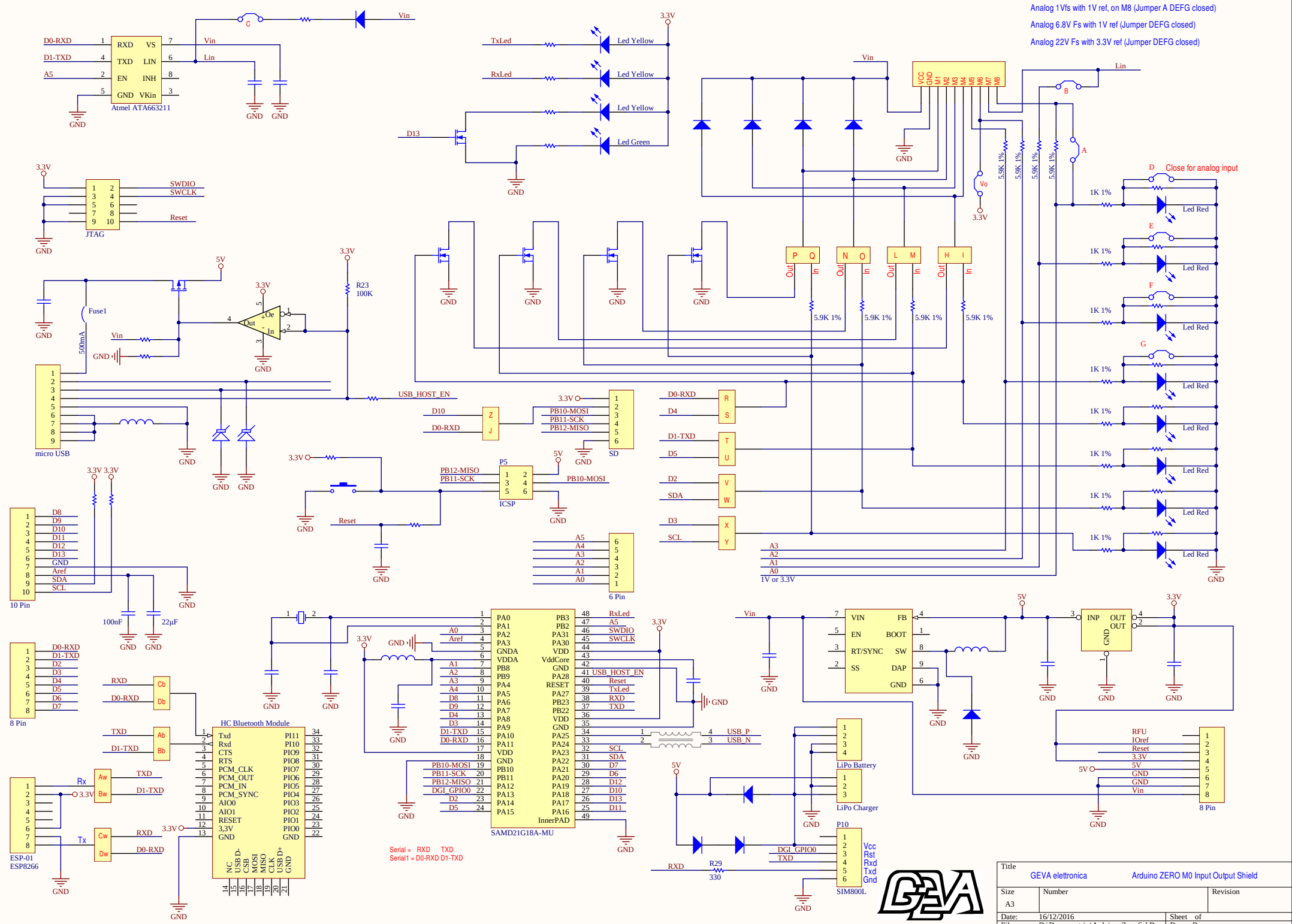
SN74LVC2G34 + 1uF



Bluetooth HC06

HC-Bluetooth	RxD TxD	Ab Bb Cb Db	Serial
HC-Bluetooth	D0-RxD D1-TxD	Ab Bb Cb Db	Serial1





Analog 1Vs with 1V ref, on M8 (Jumper A DEFG closed)
Analog 6.8V Fs with 1V ref (Jumper DEFG closed)
Analog 22V Fs with 3.3V ref (Jumper DEFG closed)

