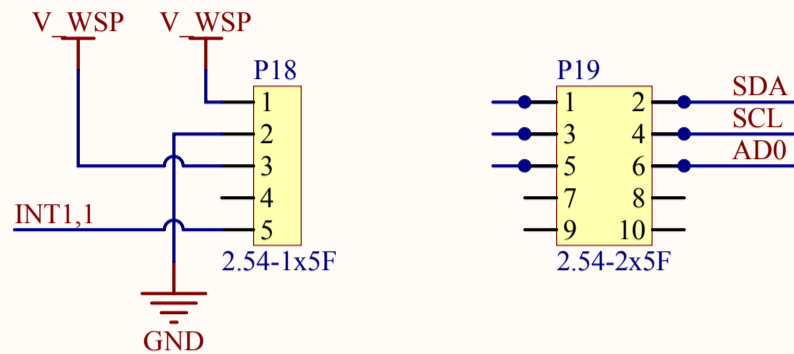




10pin smSESNR's  
 I2C ONLY 500/400 MIL Spaced Header  
 Typically for smSENSOR's in Default I2C Mode

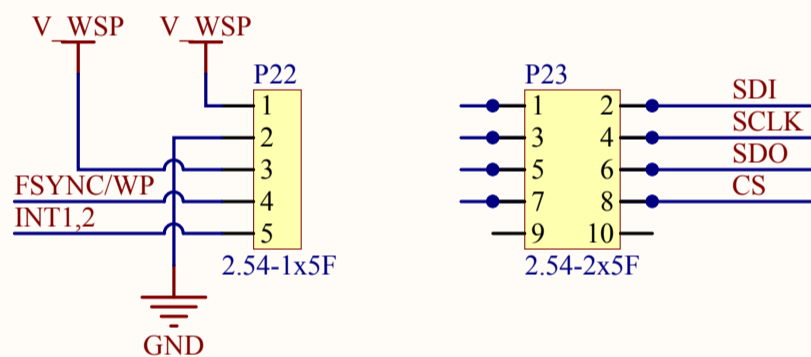
## smBLOCK I2C 1



P0.00	P0.00
P0.01	P0.01
P0.04/AIN2	P0.04/AIN2
P0.05/AIN3	P0.05/AIN3
P0.08	P0.08
P0.09	P0.09
P0.10	P0.10
P0.15	P0.15
P0.16	P0.16

10pin smSESNR's  
 SPI ONLY 500/400 MIL Spaced Header  
 Typically for smMEM or smSENRs in SPI Mode.

## smBLOCK SPI

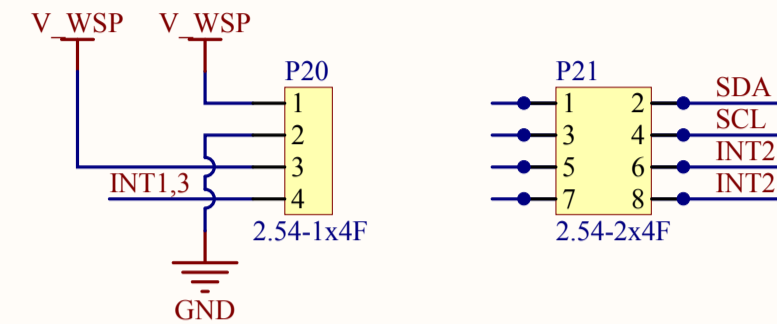


P0.22/CS	P0.22/CS
P0.23/MOSI	P0.23/MOSI
P0.24/MISO	P0.24/MISO
P0.25/SCK	P0.25/SCK
P0.26/SDA	P0.26/SDA
P0.27/SCL	P0.27/SCL

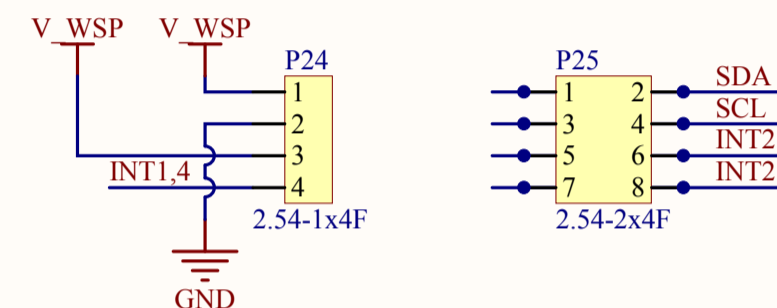
P0.29/AIN5	P0.29/AIN5
P0.30/AIN6	P0.30/AIN6
P0.31/AIN7	P0.31/AIN7

6/8pin smSENSOR's  
 I2C ONLY 400/300 MIL Spaced Headers

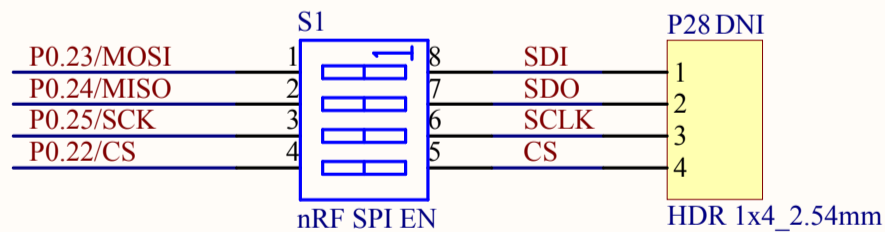
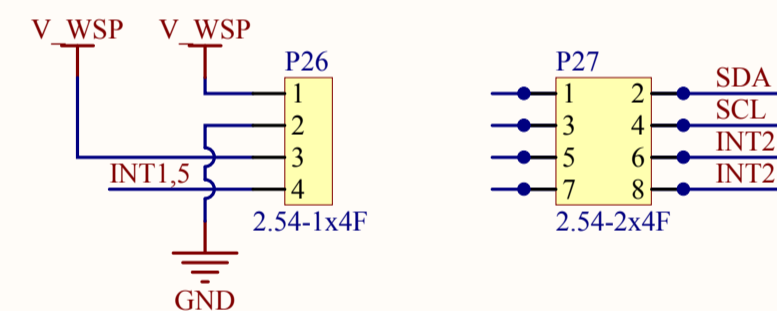
## smBLOCK I2C 2



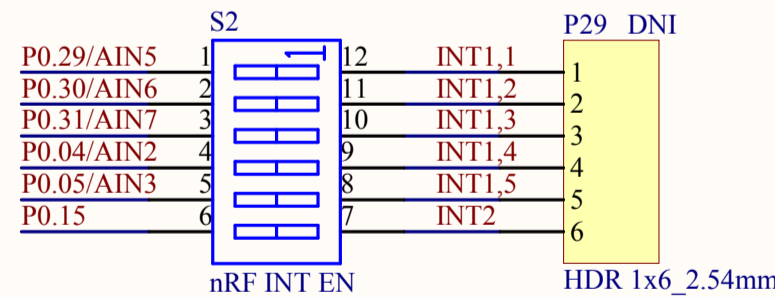
## smBLOCK I2C 3



## smBLOCK I2C 4

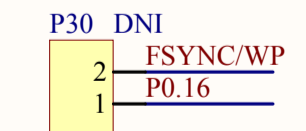
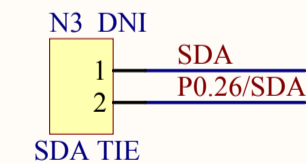
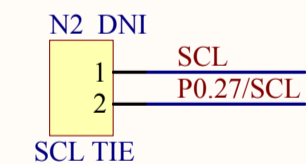


- 1) DIP = Connect nRF pins to smBLK SPI.
- 2) HDR = Manually wire pins to smBLK SPI by cutting Solder Bridge and jumpering your selected GPIO into the header.



- 1) DIP = Connect nRF Pins to smBLK INTs
- 2) HDR = Manually wire pins to smBLK INTs

**NOTE: P0.00,P0.01,P0.05, P0.08 are on nRF52 DK Auxiliary Connector which is not populated by default. To use these Pins with the nRF52 DK this header must be populated.**



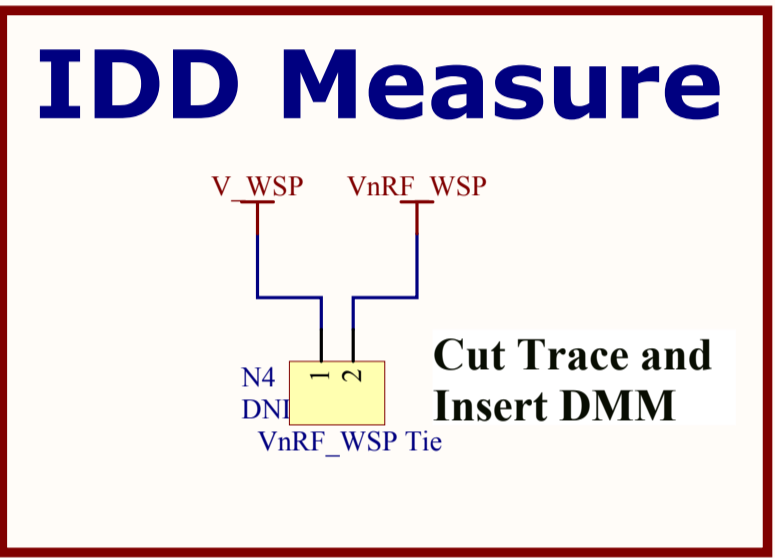
**I2C Net TIEs. Cut trace to disconnect default pins P0.27/SCL and P0.26/SDA**

**JMPR to allow GPIO Control of FSYNC/WP if needed**

P0.00	P0.00
P0.01	P0.01
P0.02/AREF	P0.02/AREF
P0.03/AIN1	P0.03/AIN1
P0.04/AIN2	P0.04/AIN2
P0.05/AIN3	P0.05/AIN3
P0.06/CPS	P0.06/CPS
P0.07/CHL	P0.07/CHL
P0.08	P0.08
P0.09	P0.09
P0.10	P0.10
P0.11/RX	P0.11/RX
P0.12/TX	P0.12/TX
P0.13	P0.13
P0.14	P0.14
P0.15	P0.15
P0.16	P0.16
P0.17	P0.17
P0.18/SWO	P0.18/SWO

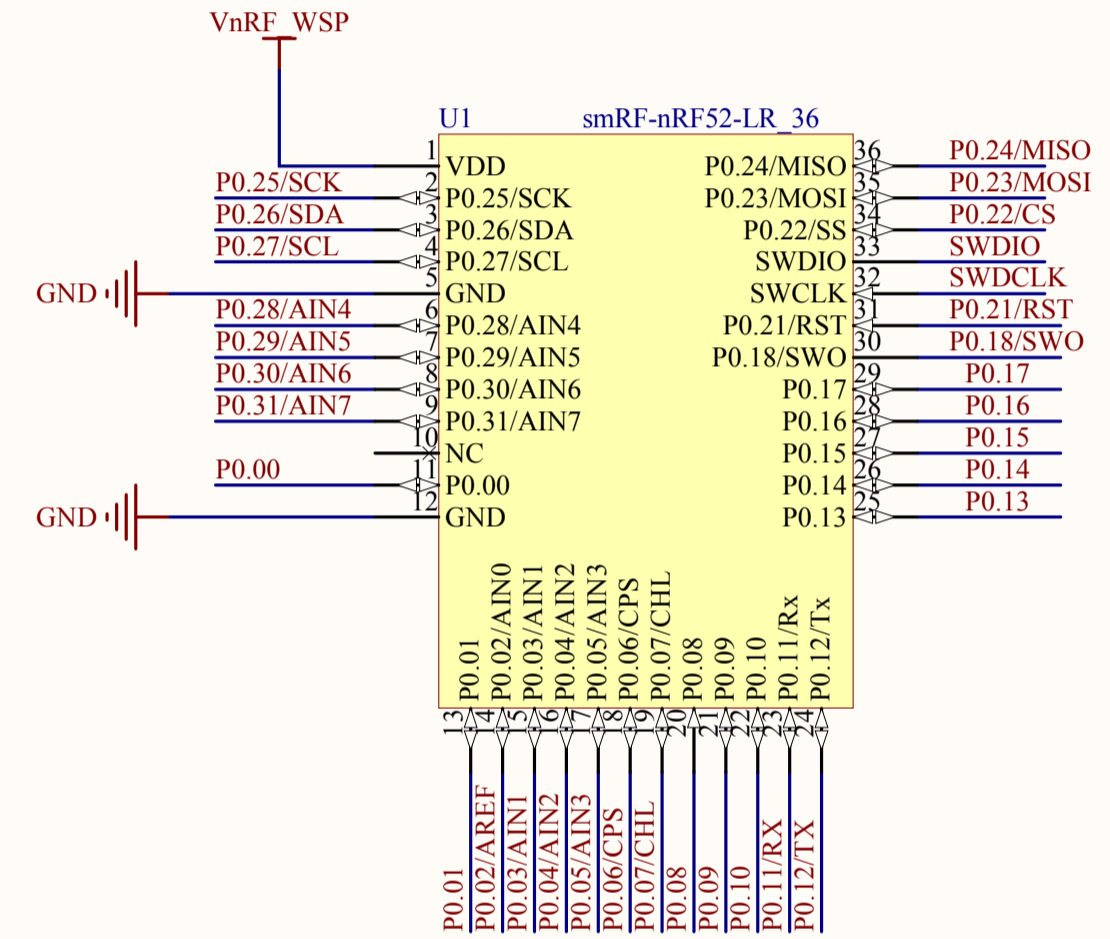
P0.21/RST	P0.21/RST
P0.22/CS	P0.22/CS
P0.23/MOSI	P0.23/MOSI
P0.24/MISO	P0.24/MISO
P0.25/SCK	P0.25/SCK
P0.26/SDA	P0.26/SDA
P0.27/SCL	P0.27/SCL
P0.28/AIN4	P0.28/AIN4
P0.29/AIN5	P0.29/AIN5
P0.30/AIN6	P0.30/AIN6
P0.31/AIN7	P0.31/AIN7

SWDIO	SWDIO
SWDCLK	SWDCLK



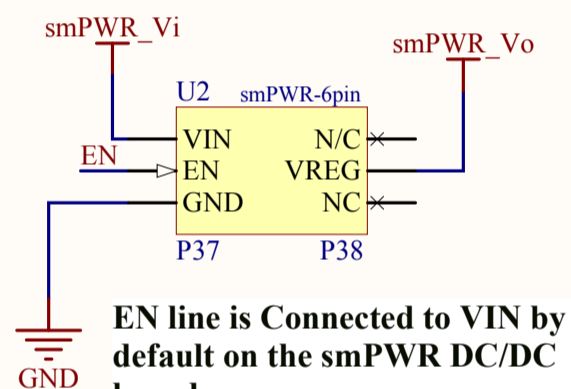
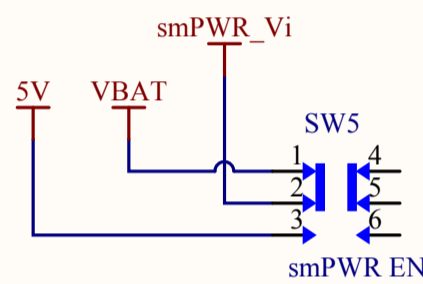
To use shield with DK without the smRF-xxxx. Cut the trace connecting V\_WSP to VnRF\_WSP to disconnect VnRF\_WSP from VTARG. A jumper can be inserted for manual control.

# smRF-LRxxx Female Receiver

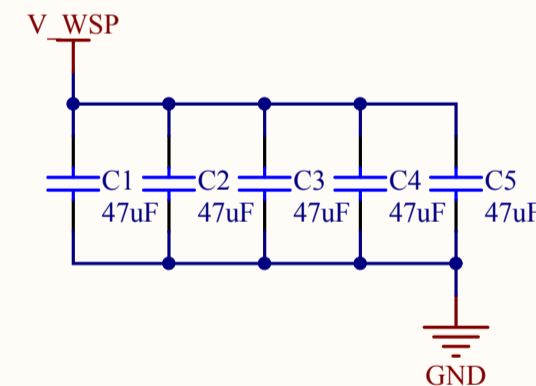
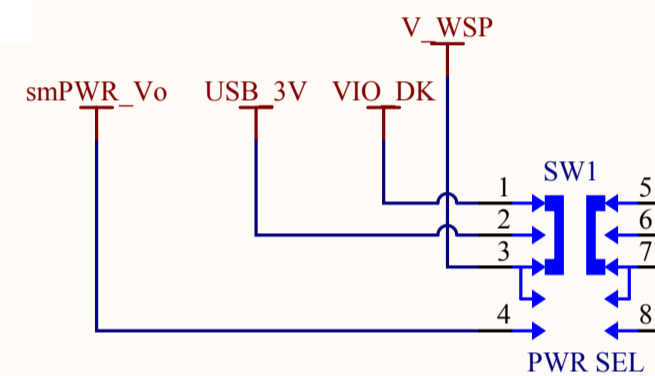


Receiver uses Sockets: P34, P35, P36

**smPWR BLOCK is ONLY needed if an external Battery >3.6V is plugged into the smBAT Connector OR an external voltage is supplied >3.6V**



**EN line is Connected to VIN by default on the smPWR DC/DC boards.**



Sensor Maestros will be offering several Battery options for the WSEP:

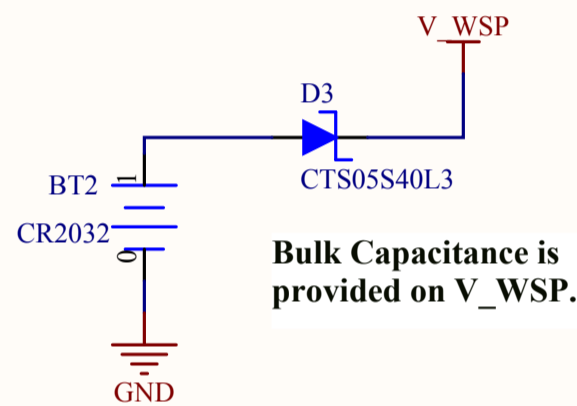
Current Offerings:

- 1. Varta CP1654 Rechargeable LiION, smBAT-CP1654.
- 2. 300mAh Rechargeable LiPO

Coming Soon:

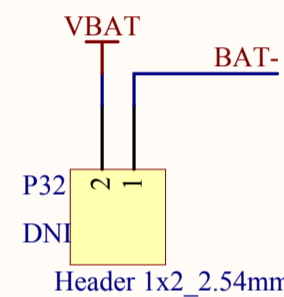
- 1. 300mAh Qi Wireless Charging LiPO.
- 2. Feel free to contact us with Suggestions

# CR2032 Holder



Bulk Capacitance is provided on V\_WSP.

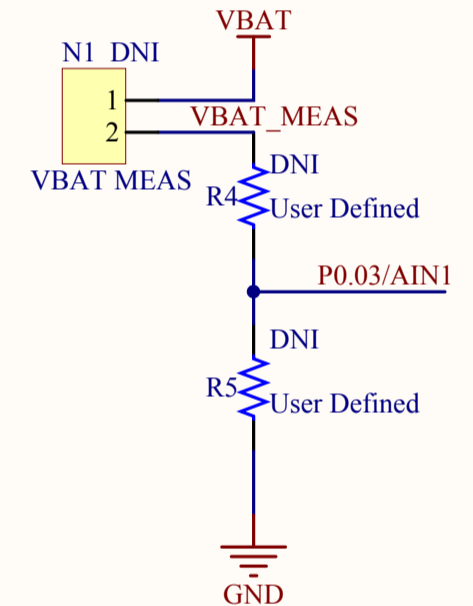
# VEXT Connector



Use to supply External Power to WSP.  
 Voltages >3.3V use smPWR EN for DC/DC.  
 Voltages <3.3V use wire jumper from smPWR\_Vi to smPWR\_Vo.  
 Use PWR\_SEL to select smPWR.

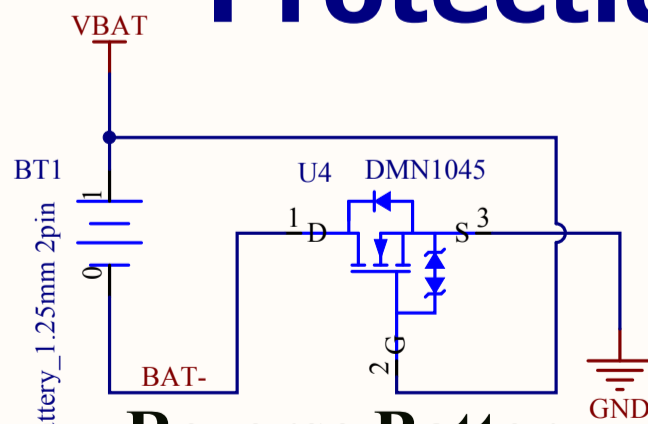
P0.03/AINI

# VBAT Measure



Appropriate R values for voltage divider should be chosen by user depending on Battery Type and operating voltage to scale battery voltage appropriately!! These are intentionally left unpopulated.

# Reverse Voltage Protection



# Reverse Battery Protection FET

Title **smWSP-ARD: smBAT/VEXT**

Sensor Maestros LLC

Size: Letter

Number: 5

Revision: V1.0.2

Sensors That Make Sense

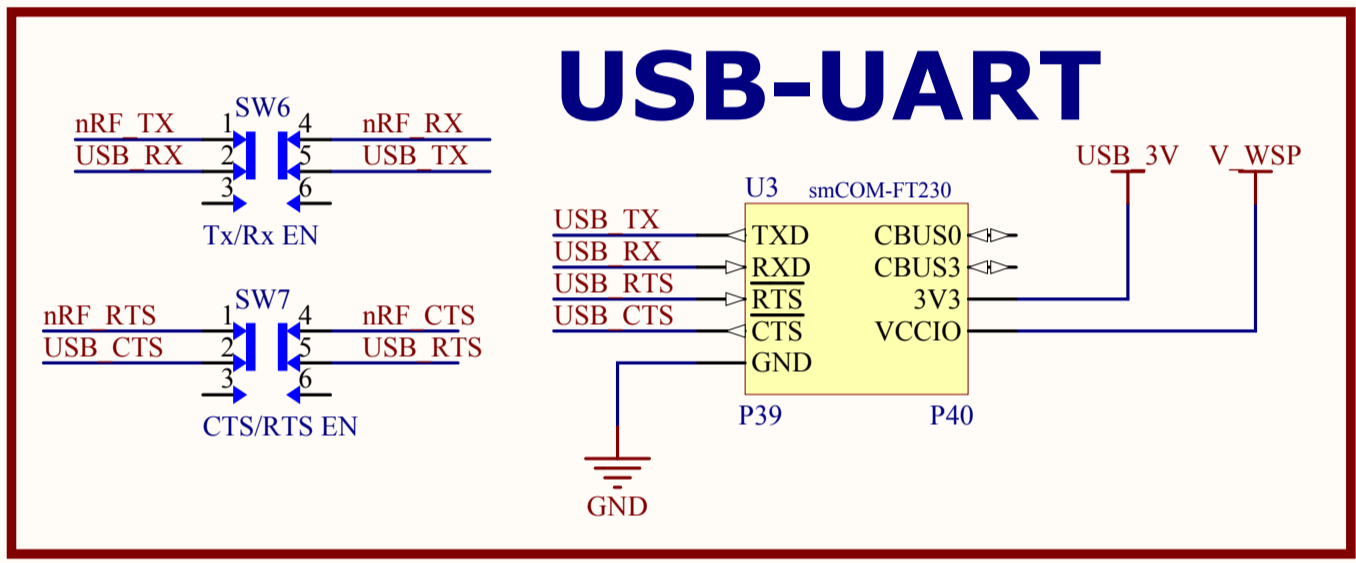
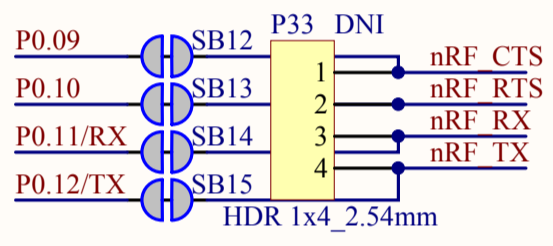
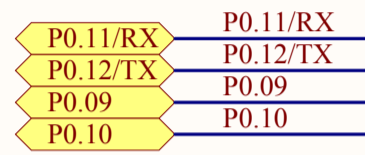
Date: 5/31/2018

Time: 12:27:13 AM Sheet 5 of 6

www.sensormaestros.com

File: smWSP-ARD, smBAT.SchDoc





Title <b>smWSP-ARD: smCOM</b>		
Size: Letter	Number: 6	Revision: 1.0.2
Date: 5/31/2018	Time: 12:27:13 AM Sheet 6 of 6	
File: smWSP-ARD, smCOM.SchDoc		

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Sensors That Make Sense  
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