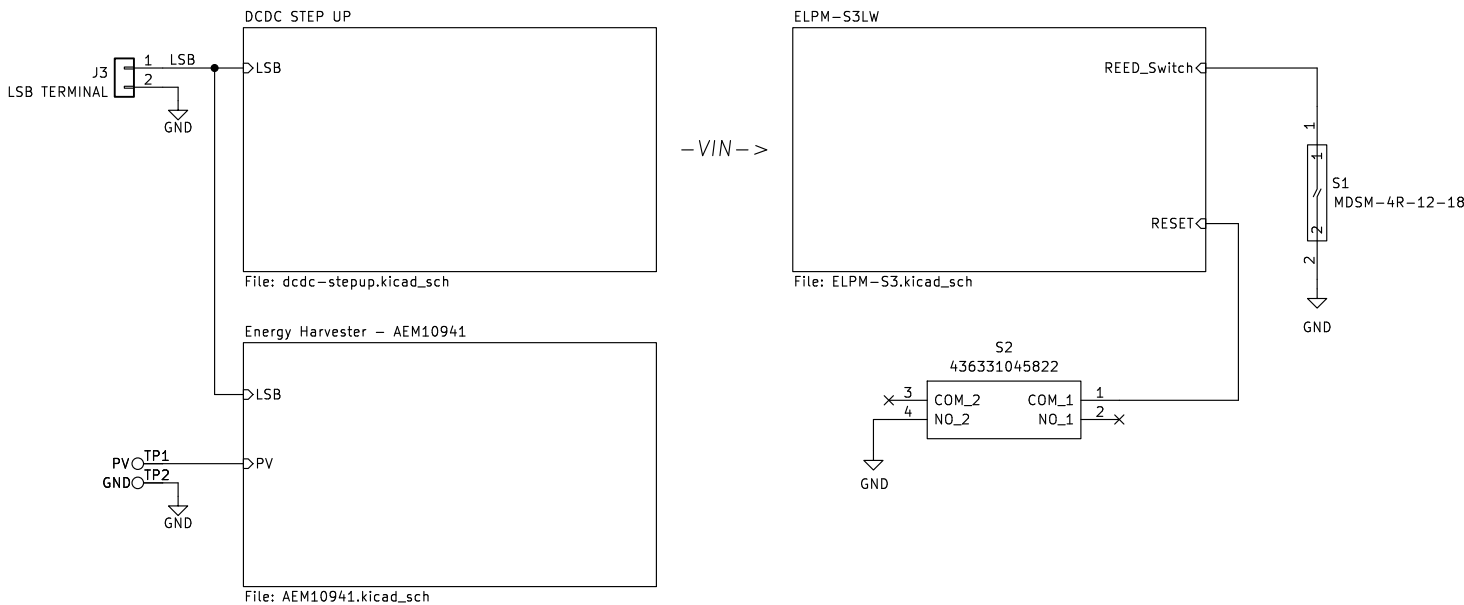



Smart Door/Window Sensor

Energy harvesting version

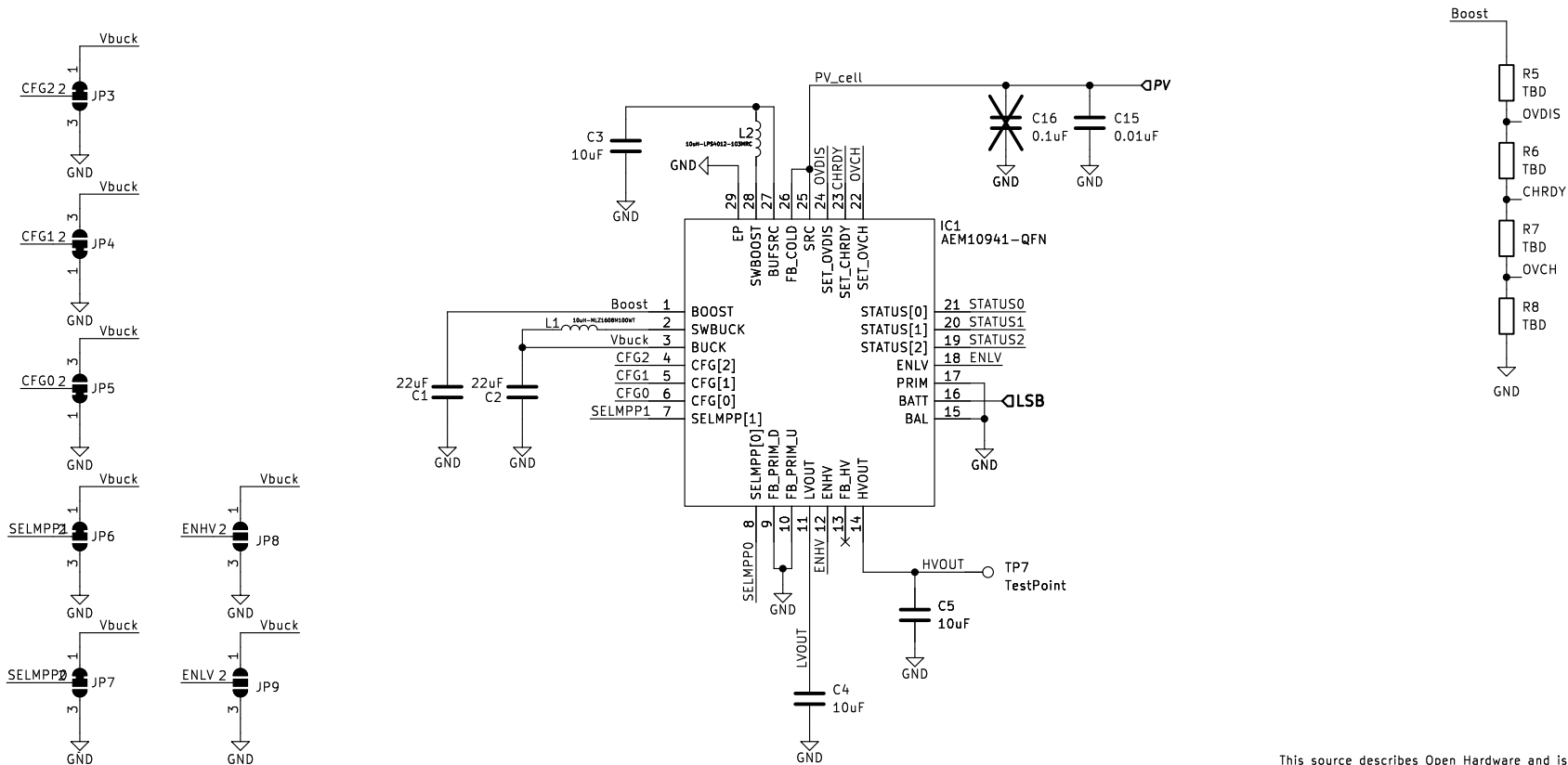


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Source location: <https://www.ohwr.org/project/wr-switch-hw>
As per CERN-OHL-W v2 section 4.1, should You produce hardware based on these sources, You must maintain the Source Location visible on the external case of the White Rabbit switch or other product you make using this documentation.

Title: Smart Door/Window Sensor – EH version			
OBJEX LABS			
Author: Salvatore Raccardi Rev Author: Salvatore Raccardi			
Sheet: / File: SmartDoorSensor_EH_v1.0.kicad_sch			OBJEXLABS.COM
			Rev: 1.3
Size: A4	Date: 2023-07-20	KiCad E.D.A. 8.0.2	Id: 1/5

AEM10941


Solar Energy Harvesting



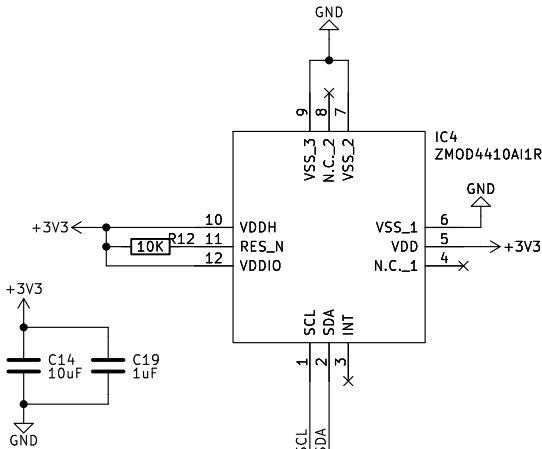
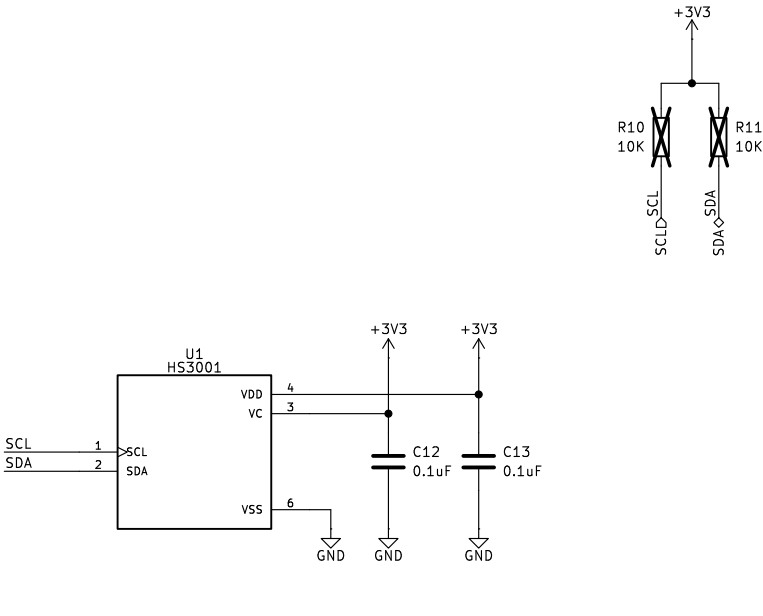
ENLV	ENHV	LV output	HV output	SELMPP[1]	SELMPP[0]	Vmpp/Voc
1	1	Enabled	Enabled	0	0	70%
1	0	Enabled	Disabled	0	1	75%
0	1	Disabled	Enabled	1	0	85%
0	0	Disabled	Disabled	1	1	90%

Configuration pins			Storage element threshold voltages			LDOs output voltages		Typical use
CFG[2]	CFG[1]	CFG[0]	Vovch	Vchrdy	Vovdis	Vhv	Vlv	
1	1	1	4.12 V	3.67 V	3.60 V	3.3 V	1.8 V	Li-ion battery
1	1	0	4.12 V	4.04 V	3.60 V	3.3 V	1.8 V	Solid state battery
1	0	1	4.12 V	3.67 V	3.01 V	2.5 V	1.8 V	Li-ion/NiMH battery
1	0	0	2.70 V	2.30 V	2.20 V	1.8 V	1.2 V	Single-cell supercapacitor
0	1	1	4.50 V	3.67 V	2.80 V	2.5 V	1.8 V	Dual-cell supercapacitor
0	1	0	4.50 V	3.92 V	3.60 V	3.3 V	1.8 V	Dual-cell supercapacitor
0	0	1	3.63 V	3.10 V	2.80 V	2.5 V	1.8 V	LiFePO4 battery
0	0	0	Custom mode - Programmable through R1 to R6					1.8 V


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As per CERN-OHL-W v2 section 4.1, should You produce hardware based on
these sources, You must maintain the Source Location visible on the
external case of the White Rabbit switch or other product you make using
this documentation.

Title: Smart Door/Window Sensor – EH version			
OBJEX LABS			
Author: Salvatore Raccardi Rev Author: Salvatore Raccardi			
Sheet: /Energy Harvester – AEM10941/ File: AEM10941.kicad_sch			OBJEXLABS.COM
Size: A4 Date: 2023-07-20 KiCad E.D.A. 8.0.2			Rev: 1.3
			Id: 2/5

Renesas sensors

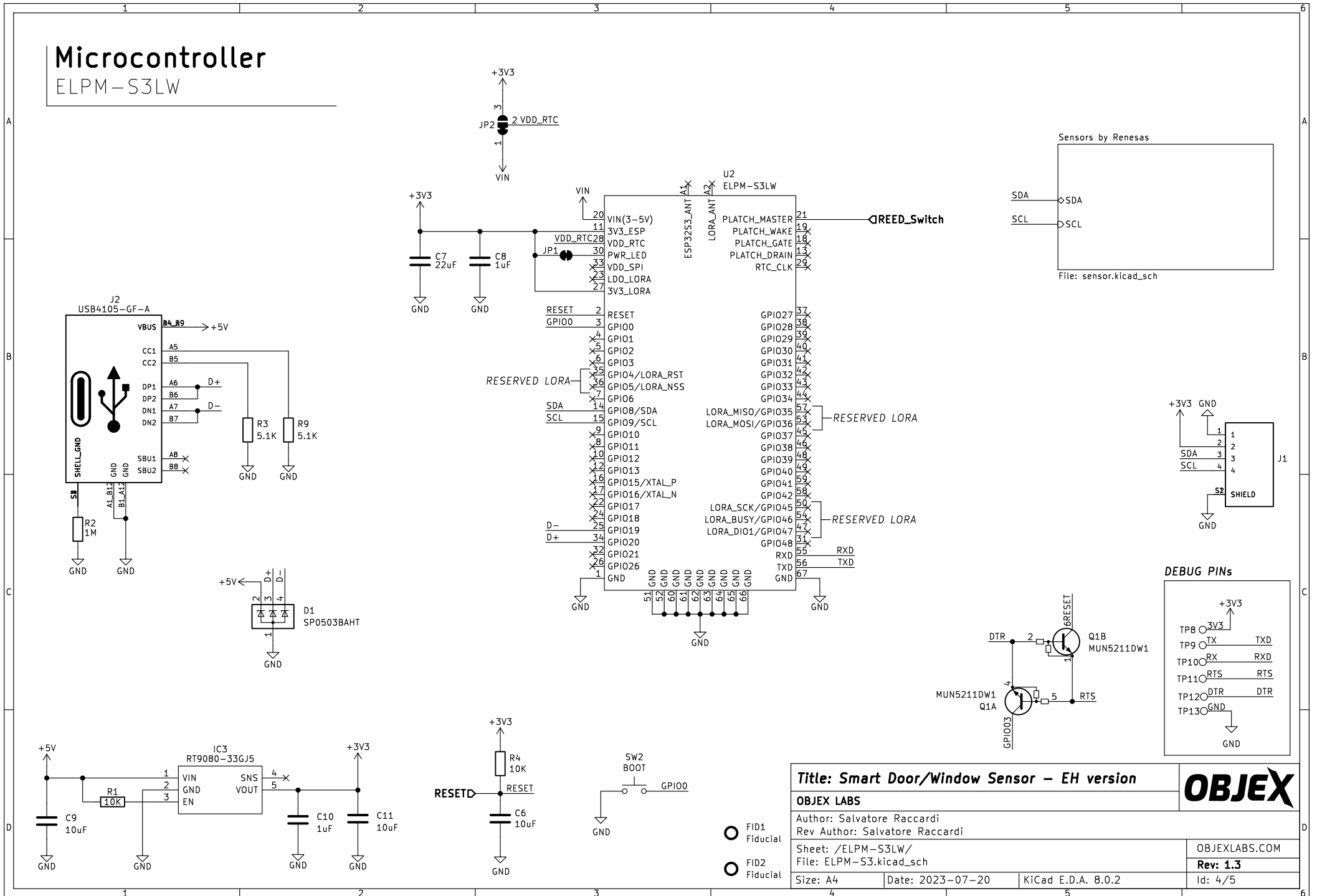


I2C ADDR 0x32

Title: Smart Door/Window Sensor – EH version			
OBJEX LABS			
Author: Salvatore Raccardi			
Rev Author: Salvatore Raccardi			
Sheet: /ELPM-S3LW/Sensors by Renesas/ File: sensor.kicad_sch			OBJEXLABS.COM
			Rev: 1.3
Size: A4	Date: 2023-07-20	KiCad E.D.A. 8.0.2	Id: 3/5

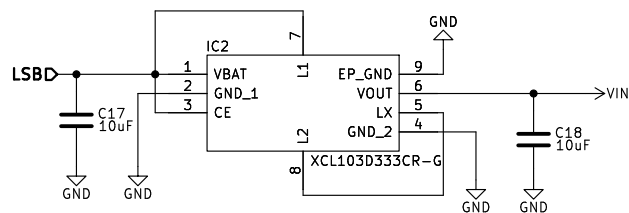
Microcontroller


ELPM-S3LW



DCDC Step up

XCL103D333CR-G



Title: Smart Door/Window Sensor – EH version			
OBJEX LABS			
Author: Salvatore Raccardi Rev Author: Salvatore Raccardi			
Sheet: /DCDC STEP UP/ File: dcdc-stepup.kicad_sch			OBJEXLABS.COM
			Rev: 1.3
Size: A4	Date: 2023-07-20	KiCad E.D.A. 8.0.2	Id: 5/5