

Gosof80

Gottlieb Soundboard based on FPGA

Hardware Version 2.1.1

Board Assembly

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Important remark

By using BallyFA it is possible to damage your pinball machine. As this is a private project with NO commercial interest the author accepts no liability for any damage that may arise by using BallyFA!

1. Bill of Material

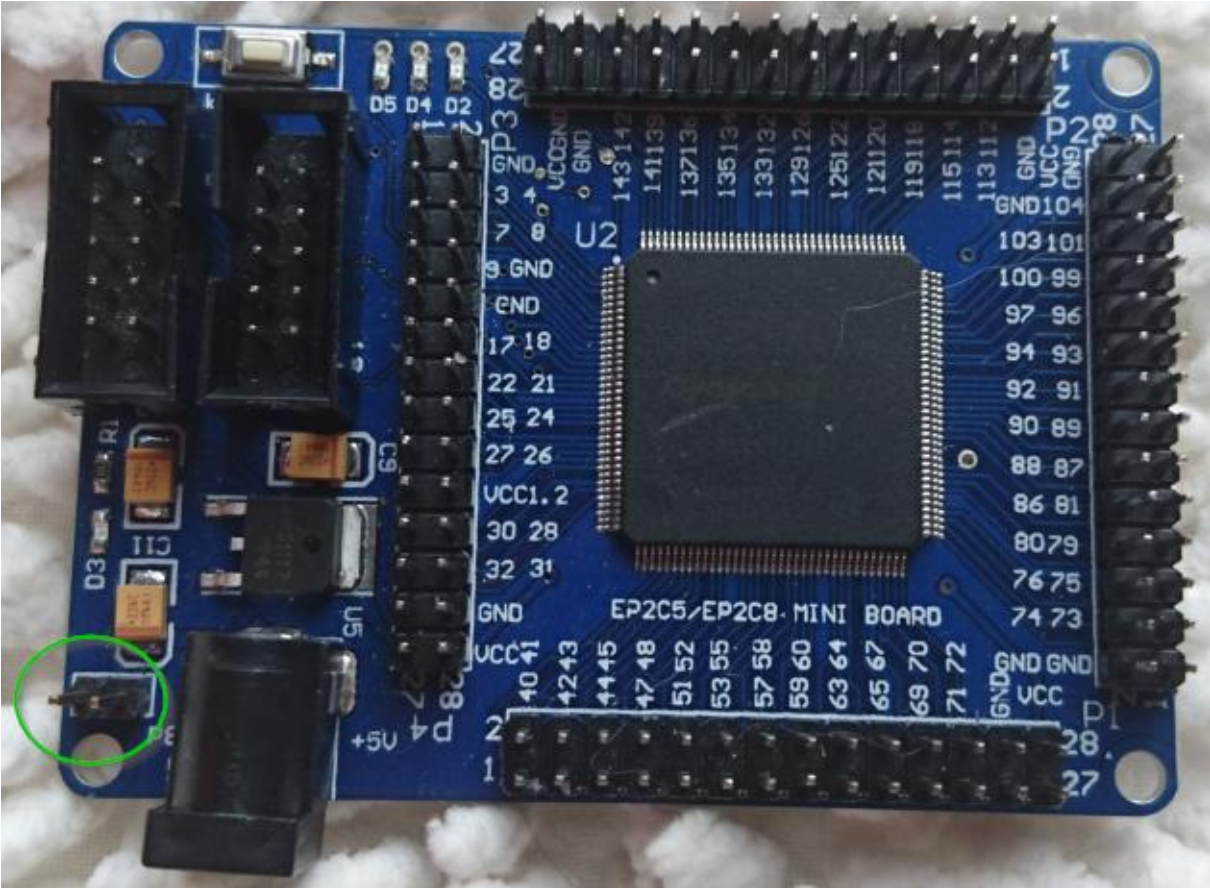
You will find shopping cards for 'Reichelt' on www.lisy.dev.

Pos	Anzahl	Name	Wert	Gehäuse
	1	1 Audio1	DFPlayer_Mini	DFPlayer_Mini
	2	3 C1,C5,C8	100nF	4X8R5,08
	3	1 C2	100µF	C_ELKO_RM2,54_DM7
	4	1 C3	4,7nF	4X8R5,08
	5	1 C4	100µF	C_ELKO_RM2,54_DM6
	6	1 C6	47µF	D7R3_ELKO
	7	1 C7	470µF	D10R5,08_ELKO
	8	2 D1,D2	HLMP-1503	LED_3MM_GRÜN
	9	1 D5	HLMP-1301	LED_3MM_ROT
	10	1 IC1	ULN2803A	DIL18
	11	1 K1	Stiftleiste_2x05_G_2,54 WANNENSTECKER-10-	Stiftleiste_2x05_G_2,54
	12	1 K2	ST	WANNENSTECKER-10-ST
	13	1 K3	Micro SD shield	Micro SD shield
	14	1 P1	J1_SB	J1_SB
	15	1 R1	10K	0207
	16	1 R2	4,7K	R-NETZWERK_4+1
	17	1 R3	3,3K	0207
	18	1 R4	22K	POTI7-L
	19	1 R5	10K	POTI7-L
	20	3 R6,R7,R8		220 0207
	21	1 S1	DIL-SCHALTER_8-POL.	DIL16-SCHALTER
	22	1 S2	DIL-SCHALTER_6-POL.	DIL12-SCHALTER
	23	1 S3	DIL-SCHALTER_4-POL.	DIL8-SCHALTER
	24	2 S4,S5	PHAP3301 EP2C5T144C8 dev	KURZHUBTASTER_6X6 EP2C5T144C8 DEV
	25	1 X1	Board	BOARD

2. Step by Step

2.1. headers for the FPGA

Solder the four 2*14 pin headers on the FPGA. In addition you need to solder one 1*2 header (green circle in the picture).



2.2. PCB

