THIS IS A PRELIMINARY BOM (Values and Content are correct, Language ;-))

I build mine using this document and I corrected or pointed out potential flaws in the design. Please use Molex or simular pin headers and cables for wirering, as it will be necesarry to switch connections for the possible expander and they stabalize the board when mounted to the panel

I would suggest the following workflow

1. PLACE ALL RESISTORS AND DIODES AND SOLDER THEM
2. PLACE IC SOCKETS AND SOLDER THEM
3. PLACE MOLEX HEADERS,CAPS, BEADS AND SOLDER THEM
4. FLIP BOARD AND SOLDER SMD 1206 Capacitors(really easy try)
4 PLACE POTS SOLDER 1 LUG , MOUNT PANEL, SOLDER ALL LUGS
5. BEGIN WIRING

NOTICED FLAWS:

C15 is not a bypass cap and 10 nF of size. Cant be ommitted. LED mounting and fixation just needs a bit creativity

Bill Of Materials for OpenCem_rev0.2.01

Design Title	OpenCem_rev0.2.01
Author	
Document Number	
Revision	
Design Created	Montag, 14. November 2016
Design Last Modified	Montag, 14. November 2016
Total Parts In Design	109

19 Capacitors

Quantity	References	Value	Package Type
6	C1,C5,C6,C7,C14,C15	1nF	WIMA FKP 2.5, C14 GLIMMER 1%;C15 1206
1	C2	10nF	WIMA 2.5
1	C3	220pF	WIMA 2.5
1	C4	10nf	
8	C8,C9,C10,C11,C12,C13,C16,C17	100nF	ALL 1206 BYPASS SMD OR OMIT THEMAND GO FOR IC SOCKET WITH OPTION TO MOUNT A MLCC THT CAP (REICHELT)
2	C18,C19	22uF	Elko

Sub-totals:

60 Resistors

Quantity	References	Value	Package Type
10	R1,R9,R13,R22,R34,R35,R42,R48,R50, R51	10k	All 1% Metal Standard Size
1	R2	1.6k	
2	R3,R28	2.2k	
1	R4	49k	
2	R5,R7	47k	
1	R6	11.4k	*
3	R8,R16,R37	1k	
2	R10,R32	2k	
1	R11	56k	
2	R12,R59	59k	
1	R14	390R	
2	R15,R20	14k	*

1	R17	12.4k	*
1	R18	18k	
1	R19	20k	
13	R21,R25,R29,R36,R41,R44,R46,R49, R52,R54,R56,R57,R58	100k	
1	R23	15k	
1	R24	24k	
1	R26	5.6k	
1	R27	910R	
2	R30,R45	470R	
1	R31	1.5M	
2	R33,R43	1M	
1	R38	1.8k	
1	R39	39k	
1	R40	220k	
1	R47	3.3M	
1	R53	340k	
1	R55	200k	
1	R60	68k	

Sub-totals:

5 Integrated Circuits

Quantity	References	Value	Package Type
3	U1,U2,U5	TL074	Can be replaced by OPA2143
1	U3	CEM3040	
1	U4	LM4040	5V Version

Sub-totals:

2 Transistors

Quantity	References	Value	Package Type
2	Q1,Q2	2N3904	

Sub-totals:

5 Diodes

Quantity	References	Value	Package Type
1	D1	1N4740A	
2	D2,D3	BAT42	
2	D4,D5	1N4148	

Sub-totals:

18 Miscellaneous

Quantity	References	Value	Package Type
1	J1	OUTS	Molex Header
1	J2	EXP	Molex Header
1	J3	CONTROLS	Molex Header
1	J4	CONN-DIL10	2X10 PIN HEADER
2	L1,L2	BEAD	
8	RV1,RV2,RV3,RV4,RV5,RV6,RV10, RV11	100k	6 x Alpha 9mm B100k, other TRIM3296W
1	RV7	50k	Precision Trim 3Precision Trim 3296W296W
2	RV8,RV9	10k	Precision Trim 3Precision Trim 3296W296W
1	SW1	SW-SPDT	

Sub-totals:

Totals:

Donnerstag, 17. November 2016 21:22:15