	build gui		rltron.com 2020-02-	
Step	Qty	Reference(s)	Value	Notes
1	13	R1, R2, R4, R5, R6, R8, R10, R14, R18, R22, R24, R25, R28	100K	
2	3	R3, R17, R23	100R	fine tuning baseline could be different values
3	1	R30	100R	R30 is output short circuit protection, it's optiona and you could put a wire here instead of 100R.
4	3	R7, R9, R21	3M3	
5	4	R11, R13, R16, R29	10K	
6	4	R12, R15, R19, R26	1M	
7	1	R20	100K	
8	1	R27	3К3	this and a 10K set the output volume level, so other values are okay.
9	2	D1, D2	1N4001 or 1N5819	reverse power protection is optional, could jump wire or use 10R resistor instead of diode.
10	3	D3, D4, D5	1N4148	orientation is important: point cathode at "k"
11	2	C1, C2	10u	fold downward on label, checking polarity
12	5	C3, C4, C11, C12, C15	100n	
				Any value between 0.2 and 2uFadditional
13	2	C5, C14	680n	decoupling, these might be superfluous and your
				module works without.
14	3	C6, C7, C9	2n2	these are integrators and should be the same
15	3	Q1, Q3, Q5	2N3904	check orientation
16	3	Q2, Q4, Q6	2N3906	check orientation
17	2	U1, U2	TL074	DIP14 socket is optional
18	1	U3	40106	DIP14 socket is optional
19	3	C8, C10, C13	220n	ac couplers, value not critical
20	1	, ,	Conn 01x06 Male	put male on PCB1
21	2		Conn 01x08 Male	•
22	2	hole	 ScrewPost	screw post into PCB1 at this step.
23	1	8L		Check the orientation! Goes on rear.
24	NA			Align steps 25-28 and close up faceplate before soldering steps 25-28
25	3	J4, J5, J6	Thonkiconn	any switching jack (PJ-3001F)
26	5	RV1, RV3, RV4, RV6, RV7	B100K (Alpha 9mm	
27	3	RV2, RV5, RV8	B2K (3296W)	carefully flush to faceplate, not PCB. Don't forge to trim the leads or they collide.
28	3	SW1, SW2, SW3	SWITCH_SPDT	set back flush to PCB, not faceplate. Shape is A- 5111 https://www.taydaelectronics.com/vertical slide-switch-1p2t-through-hole-0-5a-50vdc.html
29	NA			insert female headers (step 30-31), then screw in post.
30	1		Conn_01x06 Female	solder last
31	2		Conn 01x08 Female	solder last