
Subject: Am I delusional? (longish)

Posted by [RC Daniel](#) on Wed, 01 Nov 2006 05:08:52 GMT

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BackgroundOver the last year or so I have been mostly lurking about the various tube DIY forums in between study commitments. I have a copy of Building Valve Amplifiers (Morgan Jones), too many posts regarding SET design and building, a couple of wiring diagrams, schematics, a couple of "how to build" articles, and of course Damir's most informative tutorial (tho I have not gone through it in detail!). I have a (very) rudimentary understanding of the way tubes and SET amps operate. I can follow and understand most SET schematics and have calculated the (very) basics of monkey, other DC, and RC designs. I have even designed a couple, tho don't know if the designs are sound. I have read up on safety and will do so again – probably a couple of times and then some! I have a huge list of component suppliers. I have NO soldering skills nor tools, but I can gain these with some effort and practise and \$. I can be methodical, pedantic, and altogether cautious, which is an advantage in that I will take my time and due care with any build, but... QuestionsAm I deluding myself in thinking that I can scratch-build my first project, maybe even one of my own designs or a modification of someone else's? I have thought about kits, but none provide exactly what I am looking for, though at times I am not particularly clear on this either. Ever watch a dog chase its tail... for a year! Other people have done a scratch build for their first project with seemly less knowledge; can I just take the plunge and ask for help where needed? Can I find help here? Maybe I am just looking for that extra shove to overcome first project inertia; is it time to stop conceptualising and start doing? Kind regardsRaymond

Subject: Re: Am I delusional? (longish)

Posted by [SteveBrown](#) on Wed, 01 Nov 2006 12:45:16 GMT

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Raymond, I'd encourage you to do so. If I can offer some tips.. 1. Get ALL the parts together before you knock out the chassis. Measure twice... 2. Study good layouts from the designs of others. The biggest challenge is hum - and careful layout is key. Look at vintage amps, but don't use them as gospel. If you're doing a SET w/o feedback, hum becomes more of a problem. 3. Practice soldering. Seriously, if you can pickup an old Heathkit manual for building a bit of tube equipment, there is a nice soldering tutorial in the front of the manual (at least there was in all of them I ever saw). 4. Start by building the power supply, then routing the heater wires. This puts stuff that needs to be close to the chassis down first, so other stuff can go over the top of it easily. Twist heater wires and anything else that carries AC. 5. Try to arrange iron so the lams are at 90 degrees to each other. 6. When you power up, USE A VARIAC if at all possible! Finally, see if there is someone in your area who is an experienced builder who might look things over while you're in progress. If you're in my area (Columbus OH), I'd be happy to help.

Subject: Thanx Steve

Posted by [RC Daniel](#) on Wed, 01 Nov 2006 19:41:33 GMT

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Of all the posts I have stored away on my hard drive, that is one of the most encouraging and helpful! Very good advice that I will take to heart. Thankyou for your kind offer to help - that would be great, if I were a little closer. I am currently on the other side of the world, in the great brown land (and getting browner) of Australia. I have a few layouts I can study and Morgan Jones gives some decent guidance; I also have a lot of info regarding hum reduction. I will probably build monoblocks in large cases, not so much for sonic reasons but for easier / more optimal of layout. Thanx for the tip of laying down the AC first ; I will buy a used variac before powering up - they are not too expensive, considering the cost of an amp build. I thought I had found someone to work with a few weeks ago - an old-timer with a lot of valve gear in his repair shop. I asked, but he suggested I just order a Chinese amp and be done...Sincere thanxRaymond

Subject: Re: Am I delusional? (longish)

Posted by [cfranz](#) on Fri, 03 Nov 2006 16:11:58 GMT

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My only concern is that practically any tube project is dealing with lethal voltages. Once you have your design built... it's dangerous if you are not very careful. Soldering can be learned. Just do a search on 'soldering tutorial' in Google, there are dozens. All of them are good. Trying to figure out what you want can put you into analysis paralysis. Pick something; get the parts, and do it. If you have a good digital camera, you can always take pictures where you are stuck and ask here or at www.diytube.com or a dozen other places. Most of the guys I've met online are friendly and helpful. More importantly, even if the amp is a failure, the most important and expensive parts are reusable in other designs. Most of us have a nice stash of parts lying around from other projects which will come in handy. Soldering irons: I REALLY like wireless. I have both a butane and rechargeable. Love them both, although I use the rechargeable more often lately. Boutique parts: Whatever. Don't bother yet. Just get started. Yes. Some of the really expensive parts are really worth it. But, until you understand the sound of a base level amp, you have no basis for comparison. There are some boutique parts I swear by, but my opinion of what sounds good can be worthless if we listen to different kinds of music or our hearing is different. Getting started: you can get your feet wet cheap by building interconnects or speaker wire. There are lots of interesting recipes out there. You get a bang for the buck and practice soldiering. Also, there are kits out there for various things. Cheap. Low voltage regulated power supplies, etc. Again, you get practice without screwing up anything expensive. And they come in useful. I actually use a standard, regulated powersupply board for by tube preamp valve heaters. Also take Steve's advice seriously. He has, I believe, more experience than me. Welcome to the club. Once you have been seduced by the smell of melting solder, you'll never be the same. You have been warned.

Subject: Re: Am I delusional? (longish)
Posted by [RC Daniel](#) on Fri, 03 Nov 2006 20:52:20 GMT
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Yes, safety is paramount – one of those aspects of a build that should never be compromised. Good advice for soldering practise – I will do this. I am thinking of the Hakko iron (936?) that was recommended here a while ago – although more pricey than some, it seems a very good product that should give a newbie a better chance at success. As for analysis paralysis, I hear you. I have been more thinker than doer, though my completion of my first project will be a good step in managing this ailment! I will take your advice re boutique parts on board. I do not necessarily believe more expensive is better, though will use tight tolerance parts where it matters, eg. Mills wirewounds at cathodes etc. Thanx for the club welcome – I am warned
ThankyouRaymond

Subject: Re: Am I delusional? (longish)
Posted by [cfranz](#) on Thu, 09 Nov 2006 15:18:04 GMT
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Sorry this took me a while. Been really busy. Hakko makes a darn fine iron. I use the Micro Mark 50313 and like it a lot. But that's just me. People laugh at me when I tell them that, but I love the little bugger. Do a search on 'VoltSecond' 'Things that make you say Ouch'. Good safety tips and a heck of a nice guy. Which reminds me, there is a nice little K-12M kit (from, I believe S5 Electronics) which is a little push-pull stereo tube amp. Lots of soldering practice and you get a surprisingly good little amp for about \$150 or so. That's everything, board, parts, etc. This amp also makes a really good platform for testing boutique parts. Safety tip: Electricity goes from high potential to low potential. Always. Don't get in the way. Good luck, keep in touch, let us know how you are doing.
