

# CASE MODDING

The previous Tech Tip took a look at a few items that may be high on the wish list of computer game players. Although those items may make the functionality of games better, one thing that seems to go hand-in-hand with a gaming rig is a system with a unique appearance. The rising popularity of LAN parties has elevated the interest in customized computer cases, and what once was left to highly creative/skilled individuals, is now so mainstream that it might not be considered custom.



Go back just a few short years and the appearances of pretty much all computers were slight variations of the same theme. Boring beige boxes dominated the industry, and people looking to express their individuality with the style of their computer had to take matters into their own hands.

The term “modding” may not even be a real word (I know MS Word’s spell checker is upset with my use of it), but it is appropriate for loosely describing the broad field of modifying a computer system to give it a personalized style. This tip will proceed by looking at some of the basic items, tools, and accessories used in modding.

## Tools

The old school case modders may be more likely to find their gear at hardware, automotive, and electronics stores than they would at a computer store. They might take a plain case like this and turn it into something even more unique than this one, with just a bit of creativity and a steady hand.



For those who take pride in doing the job themselves, there are certain tools that should be included in the typical modder’s toolbox.

The Dremel has to be considered a must-have. This high-speed rotary tool can be used for cutting, drilling, shaping, grinding, polishing, and more on anything from wood to plastic to hard steel. A Dremel can help take the most mundane case and open up new vent holes for fans, cut out a window in the side panel, or create intricate decorative cut outs.



A hole punch may not be as popular now that Dremels are so widely available, but they are excellent tools for punching perfect circles into thin sheet metal. For those who have access to one, these make easy work out of adding a fan hole to any case with less than ideal air flow.

A nibbler is another tool that may have lost some appeal with the popularity of the Dremel, but it is another manual tool that can be handy for cutting thin metal or plastic. Somewhat like a heavy duty pair of shears, the nibbler gets its name due to the fact that it takes small bites out of the surface in question, and allows the user to slowly cut the desired pattern.

A soldering iron will come in handy for those who want their electrical modifications to be a little more robust (and tidy) than wire nuts or electrical tape alone will allow. Adding a custom lighting scheme including LEDs, switches, and other items requires running some wires, and most likely joining them in a neat and secure manner.



Custom cases are a lot like hot rods, except for computer geeks. Some may have the super-charged (overclocked) engine and some serious performance hardware, but what will first grab someone's attention is a sharp appearance. Paint is key to a finely finished, modded computer, just



as it is to a hot rod. You can transform a case into something with classic style, into a tribute to your favorite game, or into something whimsical with just a bit of paint.

The things serious case modders can create with their tools and creativity wind up looking less like computer cases and more like art or props from a movie. Things like the Matrix Regenerator or Rebirth projects may be beyond the skills (and patience) of most, but they are awesome to see.

### Lighting



Lighting is a key element in case modding, and LEDs may be the most common way to light up the inside and outside of a case. Individual LEDs can be purchased from electronics stores and wired together to create a unique array of color, intensity, and effects. Typical LEDs are rated with voltages and currents less than what a computer power supply might provide, and an LED calculator is a useful application for determining what combination of LEDs and resistors might work best.

For those who want their LEDs pre-configured, at this point I think just about every component may be available with LEDs in them. LEDs are like magnets to computer geeks because they can't help but be drawn to them. Some common items that feature LEDs include cooling fans, fan controllers, power supplies, mice, and other random odds and ends.

CCFLs may be the next main form of case lighting. Cold Cathode Fluorescent Lamp (CCFL) lighting is similar to typical fluorescent lighting in that it uses electricity to excite a gas that produces the visible light. The "cold" portion implies that minimal heat is generated while still producing particularly bright light. CCFLs can output multitudes of colored light, including UV light, and generally come in tubes or coiled, like on this fan. The Sunbeam Transformer case includes a green CCFL tube to give the front grill its eerie glow.



Want one more type of lighting that can be used to mod a case? Good. EL, or Electro Luminescent lighting, can be found in a variety of products, and it is distinguished by its even glow, long life, and low power consumption. Products such as keyboards and case badges are just two products that take advantage of the cool lighting effect provided by this high tech, thin material.

UV (Ultra Violet) is a term that people may usually associate with harmful sun rays, but to a modded case, it is the special effect for when the lights go down. UV reactive computer components, like those old Led Zeppelin posters in college, give off that freaky neon glow when subjected to a black light. Fans, various cables, and other items are available to be used in conjunction with black light

case lighting.

### **Pre-Modded Cases**



What was once only available to those with the skills and tools to make it happen is now readily available to anyone. Granted, pre-modded items aren't as extreme or as personalized as something undertaken from scratch, but they are more interesting than the boring beige box we all had at one time. Clear cases or themed cases may be a good point to start a modding project from, or it may be good enough for some as is. It is all up to personal taste, and the personal commitment to actually caring what your computer case looks like (if you care at all).

Serious enthusiasts may look at the pre-modded items as being posers, but they can not deny that the popularity of these items spawned from the early days when a modded case was exactly that.

### **Final Words**

Modding is all about individuality and having fun with what used to be a boring object. There is no right or wrong way to do it, and the possibilities are only limited by a person's creativity (and perhaps creative skills).

Whether taking the approach of purchasing pre-modded items or starting from scratch with your power tools in hand, sources of inspiration can be found online at places such as the Gruntville Case Mod Gallery, The Best Case Scenario, or Mini-ITX.com for the small form factor enthusiasts. If you prefer your information in print rather than online, there are such much modding guides, like "Going Mod: 9 Cool Case Mod Projects".

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