

Your Guide to the Ultimate Home Game Room

# GAMEROOM

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## Slots Come Alive

The art of hand-carved character slots  
An interview with Rich DeLong

**New Column!**

Classic Arcade Flyers

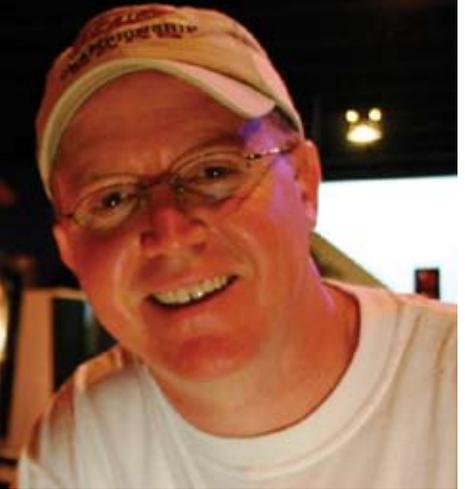
**PAPA 9**

World Pinball Championship

Rob Craig's

# Tales of the Silverball

FREE PLAY.



## Pinball Mods — Back to the Original Design

How many products out on the market today (or of yesteryear) are popular enough to earn their own aftermarket modifications? Well, automobiles come to mind—anything with an engine for that matter. Then there's technology people who mod their game consoles, Tivos, just about anything with a microprocessor, to get more features and power. Behind them all is a passion to become inventive, creative, or in the other extreme, to build it back to original design.

Obviously all this talk about passion leads us to pinball. These days, the obsessive in this hobby tend to reach out to where no one has gone before when it comes to pinball modifications. A modification, or "mod," can cover a lot of ground in pinball. There are some very important electrical mods that should be considered by everyone owning older solid state pinballs. Aging electronics can benefit greatly from updated power supply circuit boards or at minimum, fresh filtering capacitors. There are protection mods that attempt to keep things from breaking on your pinball machine like Lexan washers around slingshots, creative locations for Mylar, wire re-enforced targets to prevent bending, steel hole protectors to prevent ugly playfield wear around those areas. There are cosmetic mods that focus on providing a bit more eye candy. Little gadgets that add more effect to a playfield toy are dreamed up daily. LED blinking kits, propeller motors on *Indiana Jones*, even lasers for *Star Trek : Next Generation*. But I find myself more intrigued by the private inventor's mind



The "Rotating Tiger Saw"  
Mod for *Theater of Magic*

that perhaps discover an interview about how a game was originally designed or sampled (but not mass produced), and then finds a way to fabricate and install that original design back into their production game. I would consider this a "back to original" type of mod.

In a nutshell, a typical pinball machine goes through several whitewoods as the designer spews out his silverball vision onto the plywood. Along comes ideas and designs for mechanical or electrical devices which later become one-off's from fabrication. And as these components and inventions are given a pre-season shot at making the game, several get cut. While some of these junked ideas simply didn't benefit the game, it's the final financial cuts that hurt the worst, as these aren't the ones that sim-

ply didn't meet the designers grade. It's the dollar-munching force field of business that shrinks the bill of materials. And thankfully, many of the remnants of those prototypes and sample games are left for us to explore in the form of sliced wiring harnesses with empty connectors, and the all important software that may still contain the instructions to operate the device that was axed.

Look at *Twilight Zone*, one of the greatest solid state pinball machines to put in your home. Originally the machine had a 3rd magnet around the top orbit shot and some additional lamps in the "door" on the playfield. These were cut in production games to save cost. *Indiana Jones* had some lighting under the dot matrix display that identified jackpot accumulation, yet this was cut



along with other lighting and plastics. *Earthshaker* had a sinking building on about 200 games, and this too was yanked. Go back to the dawn of solid state pinball and you'll find a little game called *Firepower* with 6 drop targets instead of 6 stationary targets. There are hundreds of part-chopping stories still left, and no doubt more to learn about as pinball lives on. And to hopefully peak the interest of the skeptical pinballer into the importance of at least back to original mods, I want to cite just one example that makes a massive difference.

## A Focus on Dredd

So what does it take to engineer your own modification? You need a direction, a purpose. And with *Judge Dredd* as an example, there is a real need to get the game flowing as it was originally intended. Once upon a time, Judge Dredd actually locked 3 balls in *Dead World*, the rotating planet that absorbs so much real estate on the playfield. But then concerns over balls getting stuck there pushed the designers to re-create the multi-ball element of the game. The story goes that Dredd was well into the design stages and it was meaningless to redesign something that cost so much to create in the first place. So, *Dead World* stayed, but its meaning in pinball life was not much more than a hunk of plastic that temporarily paused your last ball in the 3rd stage ball lock. It was one of the worst changes ever introduced in a single game design (in my opinion).

They chose to remove the ball locking ring on the massive planet and send "locked balls" around the loop and back to the flipper. The result was to further confuse this already busy game. Ball lock is nothing more than a "Ball 1 is locked" statement from our sexy female MC.

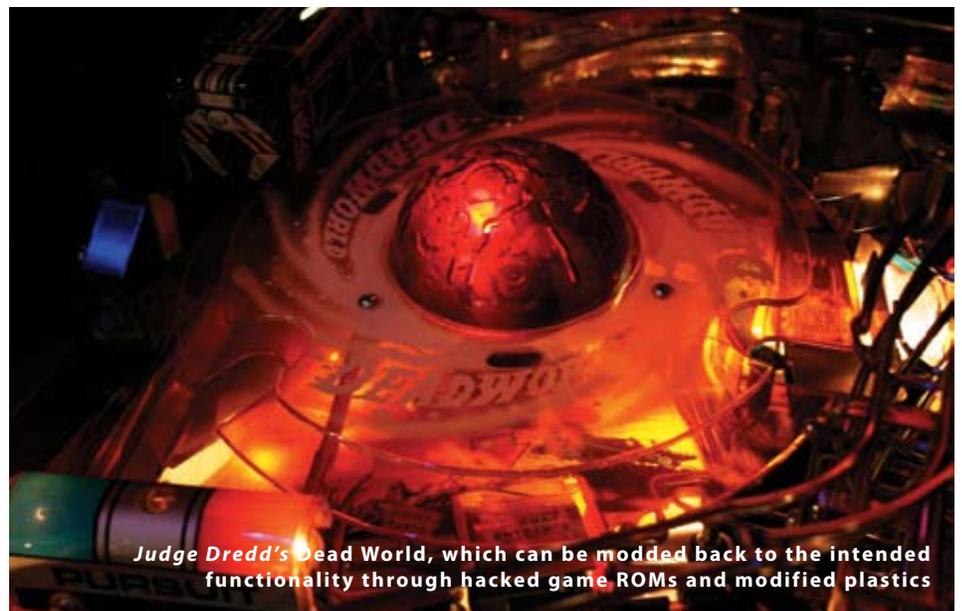
With *Dredd*, you are easily armed with a purpose to put it back to original. You just have to find some software that will enable this gadget to function as it should, and of course re-create the changed plastic parts to start locking balls again. The solution to the code was easy enough. The first revision of the software was built around a fully functional *Dead World*. Even the IPDB.org website sports a copy of the original ROM. And since the *Dead World* change was late in the design process,

important switch hardware is still present, albeit non-functional without modification. This all requires a vision, motivation, and some hard-core research and testing. Thanks to Adam Gould, all the hard work to figure this out is resolved. With a few bucks and a little time, you can make this decent lock-less game into a fantastic pinball machine as the designers intended it.

Now here we are today with most of the prototype secrets made public. And thanks to the creative and passionate, most of these original concepts can be re-introduced into any standard production game by web searching a game title and the word "mod".

I am thrilled at the number of growing projects that are yielding new opportunities to experience already great games. Many of these mods that are available for purchase re-create that original designer game. Still others handle minor cosmetic or lighting issues that take an otherwise unbalanced lighting effect and make it better. Ready-made speaker systems that are designed specifically for your game bring out tons of wonderful sounds that couldn't be heard on stock speakers.

Still there is a debate on just how far we should go with modifications to production machines. When it comes to re-introducing original game concepts and the production of home friendly software, you can count most collectors in. But bring on the "bling" of cosmetic add-ons and playfield mounted kiddie toys and you might find a few heave with disgust. Looking back at *Twilight*



Zone, instead of just adding the original 3rd magnet and door flasher, imagine covering the backstop of the playfield with custom photoshop art that consist of pasted Twilight Zone'ish graphics. Add a mini-rocket, some marbles into the hollow gumball machine, a pyramid topper, a tiny camera at the camera shot, a 100 watt sub-woofer speaker, and why not a picture of your daughter, niece, or a complete stranger as Talking Tina? OK, maybe I'm getting carried away. Barring the Talking Tina picture, all the other mods are available for the right amount of cash...along with a pyramid topper of course.

At what point is enough, enough? How many mods can one cram into a machine until the players experience is degraded instead of enhanced (or the machine requires a second power supply)? Does a mod increase the value of the game, or make it less desirable? That answer is entirely up to you of course. But for this pinball restorer, I tend to judge them more on where they complete the machine and less on their glamour effect.

One last visit to Twilight Zone will



make my point. The upper left corner of the game is overwhelmed with darkness except the occasional flasher effect. Add in the gumball lighting kit and suddenly you have a more complete look to the lighting. A similar effect on other games can be found in changing standard white lamps to colored lamps that bring out the playfield or plastic art better, or even adding a few more lamps to a particular general illumination string.

Find a machine that feels incomplete, and I bet you'll dig up a story about business decisions that steered the death of those cool gadgets that would have made the game whole. And if you have

the vision for a little pinball design, fabricate that missing link and stick it back in there! **GR**

### A few places to get cool Mod stuff

[www.repairconnection.com](http://www.repairconnection.com) – Xenon LED strip for Tube Shot, Real moving Saw for Theater of Magic. Lot's of upgraded electronics!

[www.pinballpro.com](http://www.pinballpro.com) – Pinball Subwoofers and cosmetic mods for Twilight Zone, Addams Family, Theatre of Magic

[www.ajpinball.co.uk](http://www.ajpinball.co.uk) – Judge Dredd Dead World Kit

[www.ufopinball.com](http://www.ufopinball.com) – Attack From Mars & Revenge From Mars LED Kits

[www.pinballobSESSION.com](http://www.pinballobSESSION.com) – Keep informed about upcoming back-to-original kits for Earthshaker and Dr. Who

Search for almost anything about pinball mods by going to [groups.google.com/group/rec.games.pinball](https://groups.google.com/group/rec.games.pinball)