Laser Eye Vampire Skull Project
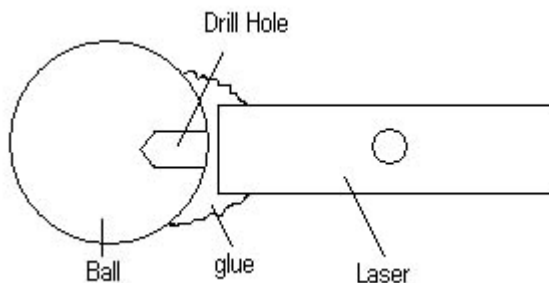
This project came about from a desire to have a few skulls lying around my haunted garage. But I wanted something more than just "normal" skulls, so the first in the series was to be a vampire skull. In the middle of the project, I went to a Halloween meeting where Greg ? demonstrated his awesome technique for using the little laser pointers for a great eyeball effect. Combining the two seemed natural and so here is the how-to.

Part 1 - The Laser Eyes

Greg's basic concept is to have a laser pointer send its beam into a frosted ball. The "frosting" breaks the beam apart into thousands of tiny "particles." This is an amazing effect, much different than shining a regular flashlight into a frosted ball. It looks kind of like a tiny disco-ball (you know, the mirrored ones) because you have all these tiny bright spots.

The basic concept is to take a small plastic ball - I used 1" balls obtained from TAP plastics. Drill a hole about 1/8" deep into it and glue it onto the end of a laser pointer so the beam goes into the hole. This way the beam penetrates the "frosting" and the angled drill hole breaks the beam apart more.

It may be difficult to see in the picture at left but the bottom laser pointer shows the complete effect, you can see a frosted ball glued (I used good old hot-glue) to the end of the pointer. Above it you can see a ball and a pointer and to the left is my bag of parts.

Once you've got the lasers ready. Its time to place them in the skull. Greg had crafted an elegant solution using cut away skull parts and white glue to hold it together. I opted for a simpler approach. I measured the size of the laser pointers and used a drill in the back of the eye socket to drill a hole.

I wasn't really concerned with accuracy and matching direction as the balls are the same shape from virtually any direction and the laser light is pretty non-directional as well. I ended up with a couple of holes drilled into the skull. You can see in the picture at left how it looks with the lasers inserted. The picture above kind of shows the holes as well but its hard to them out.

Since the holes are the right size, the lasers just fit into them and the piece of masking tape I put over the pushbutton switch to keep it on, keeps the whole assembly snug in the hole

Part 2 - The Fangs

Once the eyes were done it was time to do the fangs. My original concept was to mould them out of modeling clay. However after playing around a while I opted to try something faster - using fake fingernails!

Before the nails could go on, the jaw had to be set right. I wanted the mouth open so the fangs would be clearly seen. This meant gluing the jaw with epoxy. I tried that but the epoxy wasn't strong enough by itself, it needed an additional brace. I wanted something that wouldn't be seen very well from the front, so I opted for a small brace in the back of the jaw on each side. Digging out an old plastic model I broke off the "tree" and used this.

The picture on the left shows the brace. It runs from the back of the bottom jaw to the back of the top, right behind the teeth. I wanted it on the sides so it wouldn't be visible, I figured if it was painted black nobody would ever see it. This allowed the jaw to be "locked" in an open position.

Cuts
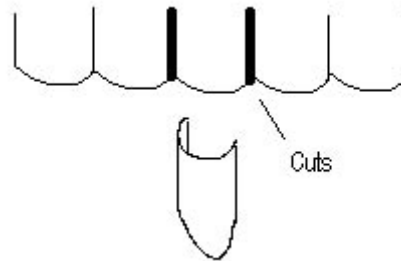
Now comes the fangs themselves. I don't have any pictures because I tried and they were just white on white and you couldn't see anything. So I've made this little diagram.

Basically what I did was to take the dremel and cut a narrow gap between the teeth where the fang will go. Then I bought some cheap fake fingernails, a couple of bucks for a pile of them in the little girls makeup section. I carefully curled them a bit more, and then with some quick-set epoxy glued them to the front of the teeth. Since the nails are a lot longer then the teeth they show up quite nicely. They don't look like real teeth from all angles but my concept is that the kids will the skull essentially from the front where a paint job will make it look good.

Part 3 - Coloring

Now that the skull is essentially finished, its time to paint it up.

I start by covering the skull with Minwax stain, its a gel and very dark, a little will completely stain and discolor the skull. Next, while its still wet I take a dry napkin and "blotch" the stain to remove the swirls of application. It also removes a bit so the skull ends up with a very nice uneven ugly looking coloration.

I wanted the teeth to stand out, even in the dark so I painted the edges of them black, in

the crevice between the teeth and at the edge of the gumline, or "boneline". Then I painted the center of the teeth white to really make them stand out. I also painted some of the "shadow" areas and the "brace" that holds the jaw open black so its not easily seen.

The finished result is at left, a nice looking and easy to do skull with very obvious vampire "fangs" and nothing obvious holding the jawbone open.

Part 4 - Additional Batteries

After the project was all done and I had been playing around with the lasers for awhile I got to worrying about how long the little batteries would last. I don't have a ready supply of the things and I just knew that even if they lasted a long time I'd need to replace them, probably at the worst possible moment. Greg had come up with an elegant solution to cut off the laser case and solder wires to the appropriate spot on the tiny circuit board inside. I wanted something a lot easier than that though. My solution was to do essentially the same thing as Greg, but with less work.

I scrounged up a couple of small alligator clips with the rubber insulation around them and attached wires to them. If you take the batteries out of one of the laser pointers and look down inside you can see the spring where the battery is supposed to connect to. I reached in with the alligator clip and connected it to the spring. The other side of the batteries touches the back of the case so I just clipped the other alligator clip to the case itself. A diagram is shown below:
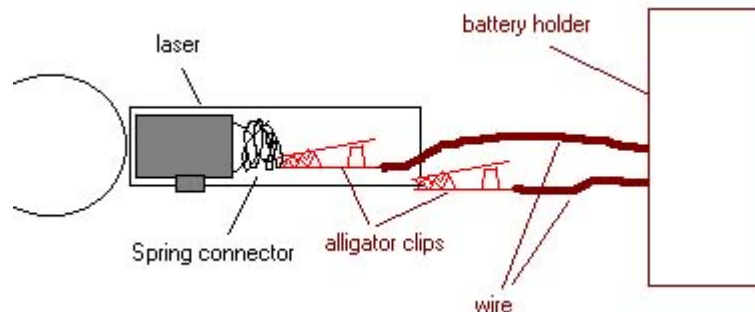
Since the alligator clip has the rubber protector around it I don't have to worry about it grounding against the case of the laser. Then a cheap battery holder from Radio Shack was attached to the wires and I have an easy-to-replace set of standard AA batteries for my Laser Eyes.

At left is a poor quality picture of the finished result. You can see one of the alligator clips is inside the case the other is attached to it directly.
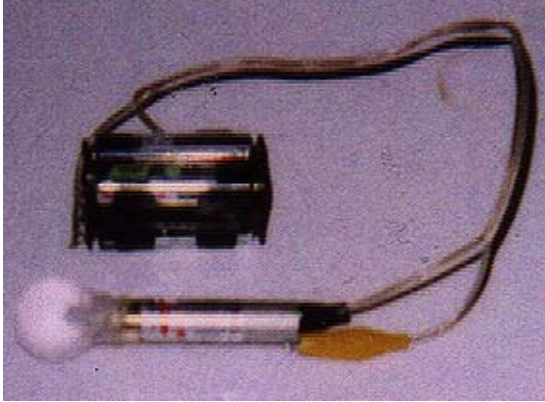
When installing the lasers into the skull I disconnect the clip on the body and slide the whole thing in, then re-connect it. The top of the skull hides all the batteries and wires!

And that's it!

I hope you enjoy building and using your Laser Eye Vampire Skull as much as I.