



<http://www.custommusic.tv/haunts/TalkSkul/BTS.html>



I started with a Bucky 4th class Skull bought for only \$5.50 from [Boneyard Bargains](#). You could use any similar skull, like the glow in the dark model versions, but the Bucky is cheap, already assembled, and looks great!

I got the idea of using a Talking Douglas Fir Christmas Tree from Chris' Crypt's fabulous [Talking Lamar Manor Sign](#). I loved the concept of the talking skull, but I didn't like the look obtained by the jaw being cut so that only part of the jaw moved. I felt the mouth looked too much like one of those ventriloquist's dummies that sit on your knee, so I designed a version where the whole mouth moves, (not to mention those evil blinking eyes!).

Tools & Stuff



The tool of choice for me on this project was a Black & Decker Wizard. Any Dremel type tool will work, but you definitely need some such tool as you'll be doing a lot of grinding away of the skull's interior plastic to make room for the gear assemblies. I used the Dremel bit that is shaped like a pencil eraser with deep diagonal ridges, cut through

my Bucky like a champ. Note: I've since purchased a Rotozip and have found it to be a great tool for such jobs.

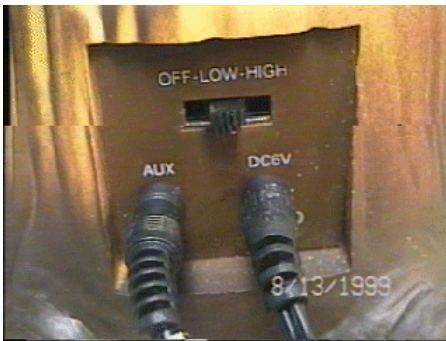
You'll also need a wonderful substance called putty epoxy, a clay like substance that hardens quickly and allows you to mount the hardware into your skull easily. Any hardware store should have it in their adhesives section. Mine came in a little cylindrical tube and there were several different types available. I went for the quickest drying multi-purpose version.

You'll also need a drill, and a vice might be helpful if you have one handy.



For the new eyes, you'll need to acquire a pair of those "Gliding Eyeballs" that were so popular in novelty stores. You know, the ones that are about life size and roll across the table, always looking upward? I've always wanted to do something cool with them, and I finally found a use for them.

UPDATE! Thanks to fellow haunter Ladybug for finding an online source. Visit [The Mad Martian's Gift Shop](#) and look under the "Balls" section for the "Gliding Eyeballs, 1.5". Be sure to specify the 1.5" version, as the others are too large for our needs.



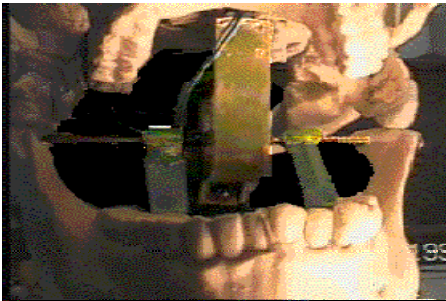
There are two different types of Talking Douglas Fir Trees out there. One of these types has an auxillary audio input, the other does not. This auxillary input allows you to connect a CD player or cassette deck with your own customized voice track. Without it, you'll be stuck with a skull that sings Christmas carols. (*Oooh, scary!*)

Be sure your Singing Douglas Fir Tree has the auxillary input as shown here. If you happen to have the alternate version of the Singing Douglas Fir that doesn't have an aux jack, you might want to check out Tom Johnson's instructions detailed [HERE](#), (though I have yet to try it).

The Jaw



Now, let's get to it. I took the accompanying photos after completion, unfortunately, so the assemblies are shown after already having been placed in the skull, but you should be able to get the idea.



The mouth of the Douglas Fir Tree, (we'll call him Dougie from here on in) is operated by a motor (housed in green plastic) which drives a squarish silver rod, or axle. This axle is attached to two green plastic support bars which support and move the flat plastic mouth plate. Remove the flat plastic plate that Dougie used as his mouth, but keep the two support bars attached to the motor.



We now want to extend the axle so that we can connect the Bucky's jaw to it at the point on the skull where it naturally connects and pivots, (we're going for realism here). We do this by drilling a hole through each side of the jaw pivot point and running a long bolt through it. Same for the other side. (See photo).

These bolts need to connect to the green support bars as if you're creating a continuation of the axle that the support bars are connected to. There should be enough room in that little socket where the axle connects to the support bar to screw your bolt into. Use a drop of super glue to keep the bolt securely attached.

For added jaw support, you can attach the ends of the green plastic bars to Bucky's jaw with a little putty epoxy. Now the Bucky jaw should be securely attached to the Douglas Fir mechanism and should "yak" just as the Dougie's mouth used to.

If you end up with a bit of a gap like I did between the jaw bone and the skull, simply take a wad of epoxy putty, shape it into a bone-like wad, and place it where esthetically appropriate. (See photo at left).



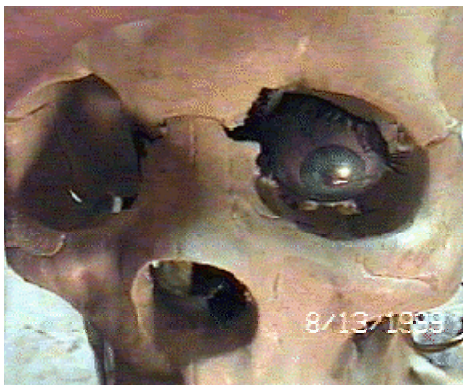
Now it's time to mount the jaw motor assembly, (presumably still attached to Dougie's vertical black plastic post) into the rest of the skull. I did all the above in the order I've described thus far.

However, I had to make the neck hole in the skull significantly larger in order to get the motor assembly inside. I'm sure it would have been much easier to have slipped the assembly in from the top BEFORE attaching the jaw/bolts to the motor assembly, but hindsight is 20/20.

The flipside is that it will be more difficult to try to attach the jaw hinge bolts to the motor assembly while it's mounted in the skull. Decide which seems easier to you and go that route. You can see the size hole I had to drill just to get the assembly in and still have room to maneuver it into the right position.

Make sure the jaw moves freely and that everything looks pleasing to the eye before securing the motor assembly into the skull with a wad of epoxy putty. You may want to take a break now and let the putty harden before continuing, how long a break depends on how fast your epoxy sets, (read the directions on the epoxy).

The Eyes



Now onto the eyes, which was a lot of fun. The cool thing with this approach is that each eye's iris doesn't come up with the lid. Eyelids rise, of course, independently of the eye itself, so the goal was to recreate that effect.

Each eyeball is actually a ball within a ball. A smaller metal ball painted as an eye within a clear plastic outer ball which also holds some clear liquid in which the inner ball floats in. To start, drill a hole in the back of the eye and drain the fluid out.





Now use your dremel to cut a groove about a quarter of an inch wide and about a half inch long up and down in the back. You'll see why in a second. (See photo).

Now, drill a small hole in the back of the inner/metalic eye part and secure a sheetrock or similar screw into it. You should now be able to hold the outer clear portion of the eye and use the screw as a handle to move the inner colored portion of the eye up and down. Got it?

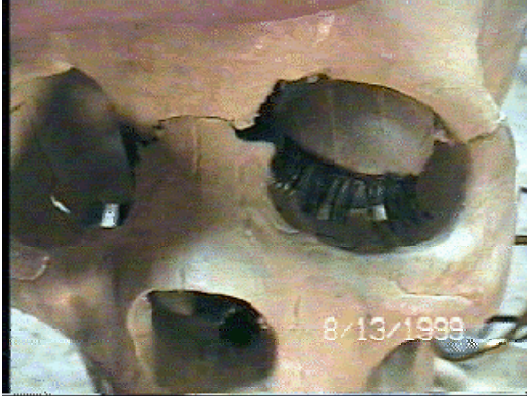
Mark the spot on your eyeball where you will attach the motor axle, (the eyeball pivot axis, seen in red in the photo). Center it on the side of the eyeball closest to the bridge of the skull's nose, or wherever you think your axle is likely to protrude and meet the eyeball.

Now, unscrew the top part of the black bar that holds the Douglas eyes and eyelids mechanism so now the bar is only half as high. You might as well go ahead and cut off the black bar above the jaw motor mechanism if you've gotten that far, get that bar out of the way as much as possible. Now pull Dougie's green plastic eyelids as well as those silly large eyes off of the motor assembly. They're too big and far apart to use on the bucky. Instead, you'll attach our new lifesize eyeballs to the motor assembly.

Personally, I didn't like the effect of the green blinking lights, so I cut them off. Keep them if you so desire.

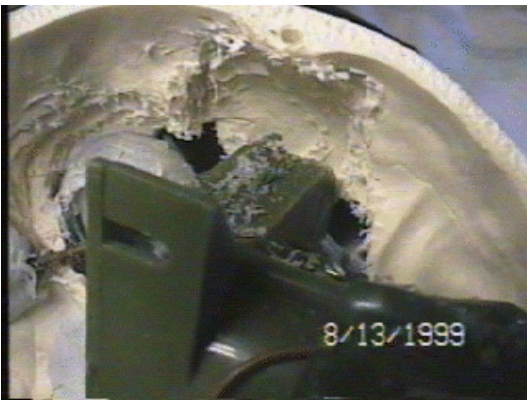
For attaching the eyeballs to the motor axle, I salvaged a tiny gear motor from a radio controlled toy car that fit nicely onto the axle. If you don't happen to have one of these just laying around, try simply drilling a small hole (smaller than the axle) and using some force to anchor the outer eyeball onto the gear axle, then secure with some super glue or epoxy putty.

The important thing is that the eyeballs are mounted securely to the axle. Now, if you hold the afore-mentioned screw stationary, the motor should roll the clear outer shell upwards part-way while the inner eye stays in place. Not much of an effect yet, but here's the key...



Take a piece of masking tape, (perfect color to match the bucky!), and place it on the top half of the clear outer shell of each eye to make it appear as though it's an eyelid covering the eye. That's the magic that makes the eye expressive. Once in place, it will appear as if the bucky has eyelids which it can open and close!

For an added touch, I glued some false eyelashes onto the lower edge of the "eyelids", really bringing some realism to it, especially when the eyes are "closed".

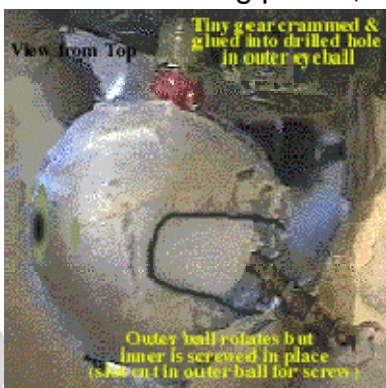


To mount the motor/eye assembly, grab your dremel and prepare to grind! You want the front end of the green plastic motor housing to be installed right behind the bridge of the nose of the skull. You'll probably find as you eyeball the placement (pardon the pun) that such a placement will keep the eyes too far back. Grab that dremel and start grinding away the plastic behind the bridge of the nose. You want to keep grinding away until the whole assembly

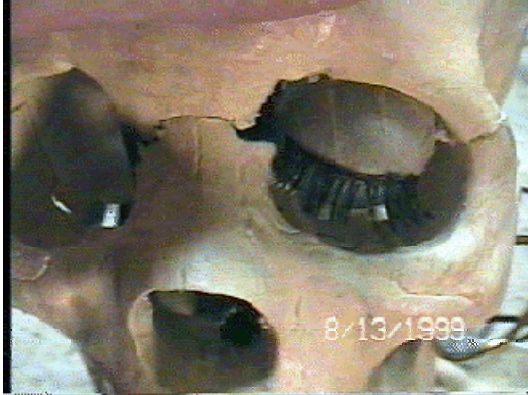
can come forward enough to look proper.

Grind some, check the fit/placement, grind some more. Don't worry, as long as you have even a thin wall of plastic thickness behind the bridge of the nose, looks will not be effected.

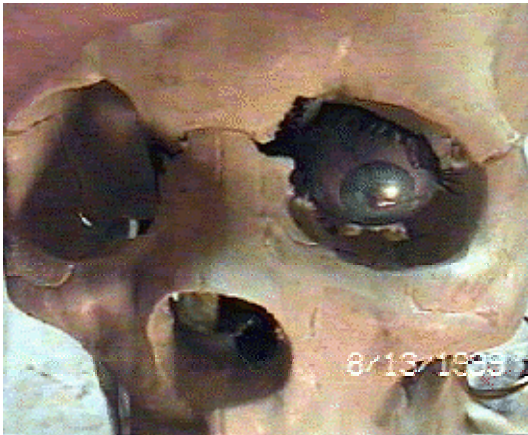
Once you've ground enough plastic away to allow a comfortable fit of the eyes into each socket and the motor assembly into the interior of the skull, use a wad of epoxy putty to mount the motor assemblies into the skull. Make every effort to make sure the eyes rotate freely within the eye sockets. For me, that meant drilling away alot of the plastic that created the eye sockets, but the eyeballs cover the missing plastic, so it's not a problem aesthetically.



Use the epoxy putty to secure the screw that holds each inner eyeball in the desire position, (you can try different eye placements here, looking to the side, down, whatever. I preferred to keep him looking forward).



The eyelid (the outer clear ball with the masking tape on it) should be covering most of the colored portion of the eye when closed, but when open, it should give you a wide awake and alert expression.



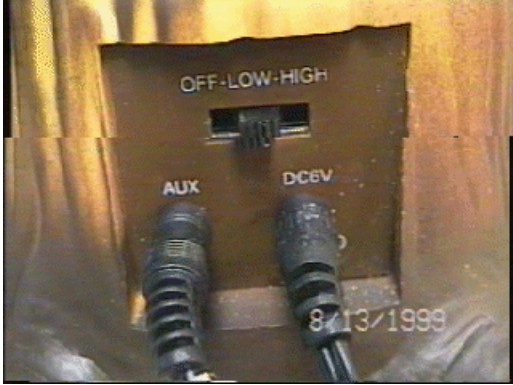
Repeat the process for the other eye. Though I originally I opted to go the pirate route and save myself the extra work, I decided to go the extra distance to get both eyes operating for a more complete, healthier looking fiend! You can view the finished two-eyed version in action by clicking [HERE](#)



If, instead of the Bucky Skull, you ordered the Bucky Torso, then good for you! You have a cool skeleton body on which to mount your Fox BTS! At first, as shown, I simply drilled a hole in the bottom of the Douglas Fir base and attached it to the steel bar that holds the Bucky Torso up, (I unscrewed Dougie's circuit board and let it hang freely). In the dark, the base was barely noticed. I eventually removed the base altogether and moved the electronic components into the skull cavity.

I chose to spray my skull and skeleton with Glow-In-The-Dark paint, which glows a very bright, eerie glow, especially when illuminated by a black light. (Steer clear of the Black Light Bulbs, which get extremely hot and don't really give off much, (if any) ultraviolet light. Stick with the tube-like fluorescent type instead.

Obtained from
Omarshantedtrail.com



All that's left now is to record a scary greeting on CD or cassette, run a line from your audio source to the AUX input on the Dougie base, and you've got your own frightening animatronic skeleton! Tip: if you're plugging your aux cable into the headphone out of a boombox or similar, try pulling it out halfway so that you end up sending signal to the talking skull and it's small speaker as well as still blasting the audio out of the (presumably) better boombox speakers.

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