



<http://www.spookylake.com/coffin.htm>

THE OPENING COFFIN

The coffin is my pride and joy contribution to 2003. The entire unit is controlled by a computer program. The door opens, the body sits up and then rotates 45 degrees. His arm then extends out and his finger makes the motion of "come here". Various sound clips play throughout the sequence including a voice saying "follow me" when the finger moves. The entire sequence takes about 2-3 minutes. The effect is staggering!!! The internal black light gives an eerey glow to the entire unit. You can also see the glowing skulls in the corner. I have a strobe light inside the coffin that turns on and off at certain key moments during the cycle.



There are several safety devices on this unit. 24V power is only sent to the lid solenoid until the lid is completely open. Once open it hits a switch that supplies 24V power to the remaining solenoids. This keeps the body and other parts from trying to open or "fire" with the lid closed causing damage to the unit. False signals can be sent to the relays from the computer if the program has a "glitch", freezes or reboots. I use "only if" switches a lot to protect equipment (and people).

THE COFFIN

I'm not going into great detail on the construction of my props. I'm a firm believer that every prop is different...people use different components, motors, actuators, solenoids, etc. This makes it almost impossible to give precise measurements. A prop constructor must use their own talents to make a prop work for their particular item. USE YOUR IMAGINATION...and apply my ideas to your creations.



The main body of the coffin is basically...a box. The key here is to build this out of one sheet of wood. It measures 71" long x 23" wide x 18" tall (roughly 6'X2' and 1.5' tall).



I ripped 2x4's down to make 1 1/2" square framing lumber. These are much lighter and still strong. I used 1/8" Luan for the outside "skin". This is very light.



The coffin has these chamfered corners that I later installed lighted skulls impaled by stainless rods. You may also put wooden dowel rods or spindles in these corners. I just thought that it was a cool effect. This complicates construction but I felt it was worth it. The lights are my signal that the power switch is "ON". This is one of many safety devices.



Next came the lid...Build a square frame from the 1 1/2" framing lumber that is the same size as the top rim of the coffin body. Now, fabricate "arches" from some 3/4" x 6" or 2" x 6" lumber. The arches give the lid a unique and realistic look.



To make all the arches the same, clamp them together and sand them all at the same time as shown. I cut some styrofoam and glued it to both ends of the lid also.



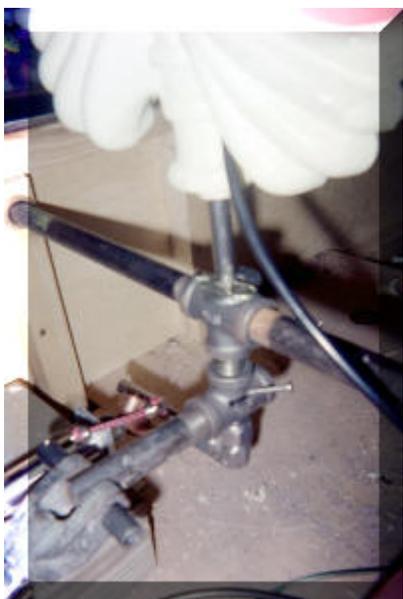
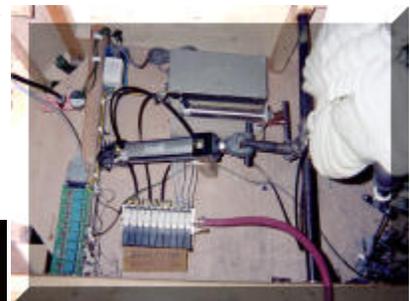
I carve the styrofoam with a hand saw, 3" belt sander and a really big file that I have. I used this foam on the ends so I could angle the short ends towards the center. (open the photo to see). This also is an addition that I felt just added that "BANG" to the looks of the final product.



We covered the lid with a brown "peg-board" material that is the same as the boards you get to hang peg-board hooks on but it doesn't have holes in it and is only \$5. I used this board because it is flexible. Luan is too rigid to bend over the the arch. I glued the end wood pieces to the carved foam. The 3" belt sander is great for shaping the wood (wood putty is effective also)



The lid is installed onto the base with a piano hinge. This hinge is a lot stronger than standard hinges. It helps to stabilize the lid when opening but I have to admit.....I used it since I already had it. The most demanding part of this prop is the mechanism that controls the man in the coffin. This contraction must allow it to sit up, turn toward the crowd, extend its arm and move the one finger in a "come here" motion. This was no easy task.

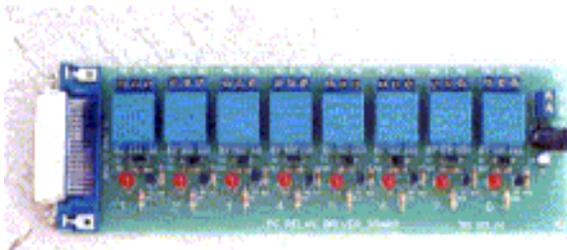




There are several safety devices on this unit. 24V power is only sent to the lid solenoid until the lid is completely open. Once open it hits a switch that supplies 24V power to the remaining solenoids. This keeps the body and other parts from trying to open or "fire" with the lid closed causing damage to the unit. False signals can be sent to the relays from the computer if the program has a "glitch", freezes or reboots. I use "only if" switches a lot to protect equipment (and people).

Relay Boards

A major part of advanced prop construction consists of electrical and/or pneumatic controls. I use both of these items extensively. I really enjoy the Sitenation KitsRUs Kit 74 controller.



This relay, when attached to a computer running a very basic program, can be used to trigger multiple actions for any haunt. A computer program sends signals to the board triggering the eight (8) relays. The signal will either open or close each relay. A red LED tells you if the relay is energized. Each relay can be equipped to send out any voltage you wish. You route a power input voltage wire to the inlet screw on a relay and you control the output by firing the relay.

The kit is easily assembled and the soldering is moderate to easy. What I found to be lacking in the instructions is how you attach/connect items to the three screws at the outlet of each relay. Here's the trick...a solenoid valve, light, or sound device will generally have two wires running to it. One is positive (+) and one is negative (-). Connect the negative wire from your power supply directly up to your device. Route the positive wire from your power supply to the middle screw by the relay you are going to use on the relay board. The middle screw is the power inlet screw. Now, while the relay is not energized, power will flow out through either the left or right screw beside

the middle screw which you attached the power inlet. You can locate which one with a volt meter. When the solenoid becomes energized from the serial port it will switch the power output to the opposite screw on the other side of the middle inlet screw. That's it.

This relay board is well worth the \$40 that it costs

Obtained from
Omarshauntedtrail.com