

HAUNTED HOUSE



HAUNTED YETI IN A CAGE

Build a pneumatically activated mad monkey.

By Eric J. Wilhelm

This pneumatically actuated, caged Yeti was part of the 2005 Occidental Haunted House that was the brainchild of Dale Dougherty, editor and publisher of MAKE. A giant pneumatic cylinder makes the monkey puppet appear as though it's trying to break out of the cage. Hidden air lines give onlookers a burst of compressed air in the face as they try to peer into the cage.

Photography by TK

MATERIALS

Biscuits or screws
 Hot glue if using biscuits
 Scrap dowels
 Rebar
 Plywood pieces (2) approx. 24"x35"
 Black spray paint
 Pneumatic cylinder and switch
 see Step 5 for details
 Piece of wood 2x4
 Hinge for wood
 Inner tubes
 Air line tubing
 Thick, malleable wire
 Stuffed Yeti monkey or chimp will do
 Black cloth
 Biscuit joiner or screwdriver
 Drill
 Electric staple gun

1. BUILD THE CAGE.

Assemble a cage. Mine is 24" wide, 27" tall, and 35" deep. I used wood held together with biscuits and glue. I could have used screws, but I sure do love using my biscuit joiner.

2. MAKE BARS, THE CEILING AND THE FLOOR

After drilling holes through the wood, drop in scrap dowels and rebar to make the bars. Cut pieces of plywood to make a ceiling and floor for the cage.

3. PAINT THE CAGE.

Spray the cage with black paint.

4. INSTALL A PNEUMATIC CYLINDER AND SWITCH.

I installed the pneumatics first to test the whole thing out, and then removed them to paint.

The 6" throw, 3" diameter, double-acting pneumatic cylinder was a backup from another project that actually needed such a thing. The valve is a 4-way, 2-position, lever-operated control valve (part #4493k34 from mcmaster.com). Both items are kind of pricey, but mine were originally purchased for a consulting project and have been reused in a number of other projects. Compressed air is generated by a portable compressor used to power the airflow on the Squid Labs laser cutter when we take it to conferences or events.

The 4-way, 2-position valve is pretty neat. When

