



<http://www.hauntedillinois.com/spinfloor.php>

Spinning Floor

This effect is spectacular! Our haunted house got a lot of repeat business because of this one. In order for this to be effective, it has to be in complete darkness. As your customers are walking along, they step on a slowly spinning platform. To some, it seems as if the whole room is spinning, while others think the floor is moving. Fear of the unknown... That is half of the scare, the audience not knowing exactly what is happening and a fear of not being in control of the situation.

These plans do not come with exact part numbers or locations where you can get the items needed to construct this masterpiece. It was pieced together with old parts we had scavenged from several locations. Building something like this should only be attempted by a person or persons with a mechanical background and construction skills. It should be noted that any effect with large, powerful moving parts like this one could be potentially dangerous if you don't make safety your number one priority. In fact, I'm not suggesting that anyone follow these plans exactly as shown below; however, I hope this page provides you with some useful information. Here is a short disclaimer:

Disclaimer: All information on this page is provided as-is without warranty of any kind. You are solely responsible for any and all consequences of its use. Your use of this information constitutes acceptance of these terms.

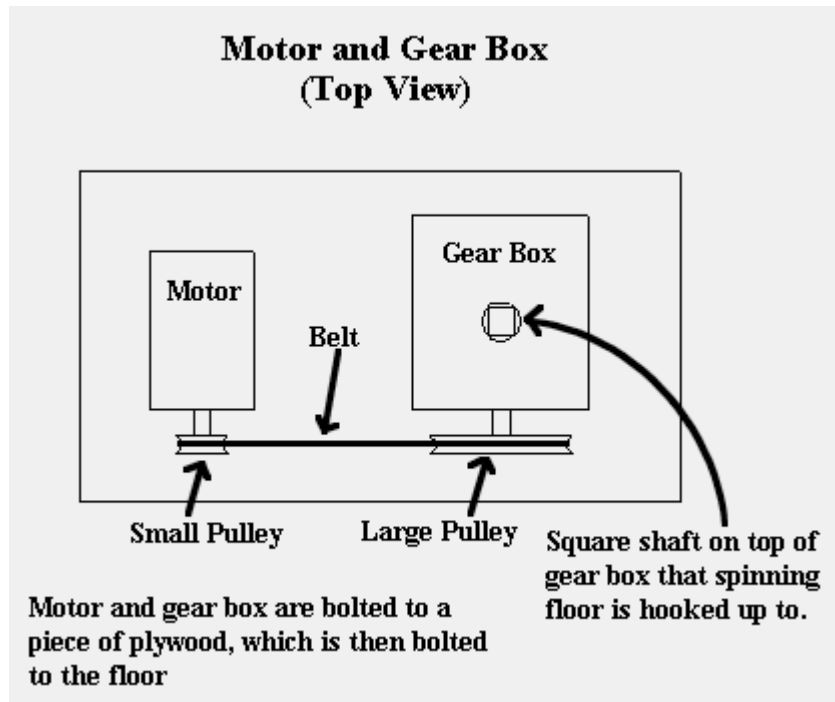
Motor and Gear Box Assembly

The platform, made of thick reinforced plywood, only turned at a rate of 1 or 2 RPM. We achieved this slow rotation in two ways. First, a gear box from an old coal stoker was used. This provided a very significant reduction in rotation speed.

In addition to that a small pulley was put on the shaft of the motor and a larger one was put on the gear box. This provided even more power, as well as a slower rotation. A belt was used to connect the motor and gear box. This was used for safety reasons. In case the rotating platform got jammed for some reason (which never happened), the belt would just slip and nothing would be

damaged (except maybe the belt itself). If a direct-drive coupling were used instead, the massive torque of the gear box could cause damage to your set-up or even cause someone to get injured as a result.

Out of the top of the gear box, pointing straight up, was the square shaft that we hooked the platform to. As shown in the picture below, both the motor and gear box, connected by a standard belt from an auto parts store, are securely mounted to a piece of 3/4 inch plywood. Once the location of the spinning floor is decided upon and the platform is built, the motor / gear assembly can be bolted to the floor.



Motor and Gear Box

Cutting out the Platform

The construction of the platform is very time-consuming. You will want to fit two pieces of plywood side by side to make a square that is about 1 foot larger in length and width than your rotating piece will be (we constructed a square about 7 x 7 feet).

Fasten these two pieces together and drive a nail into the center of the plywood square you just made. Tie a string around the head of the nail and tie a pencil to the other end of the string. You will then be able to draw a perfect circle (the circle represents the size of the rotating platform).

Adjust the length of your string so that the circle you draw is approx. 1 foot from the side edges of the plywood square. CAREFULLY cut out the circular platform, using the line you just had drawn as a guide.

Putting on the Casters

To get the platform to spin smoothly, you need to put a LOT of casters on the bottom. We used 18 for our effect; you may want to use a different number depending on the size of your spinning floor, weight capacity of each caster and the number of people you will have standing on it at the same time. Be sure to use the correct number and quality of caster that will handle more than the maximum weight you calculated above.

Don't forget to add in the weight of the platform itself! Because your motor and gear box assembly will sit underneath the platform, you will need to hold the platform a foot or more off of the floor (depending on the height of your motor and gear box assembly).

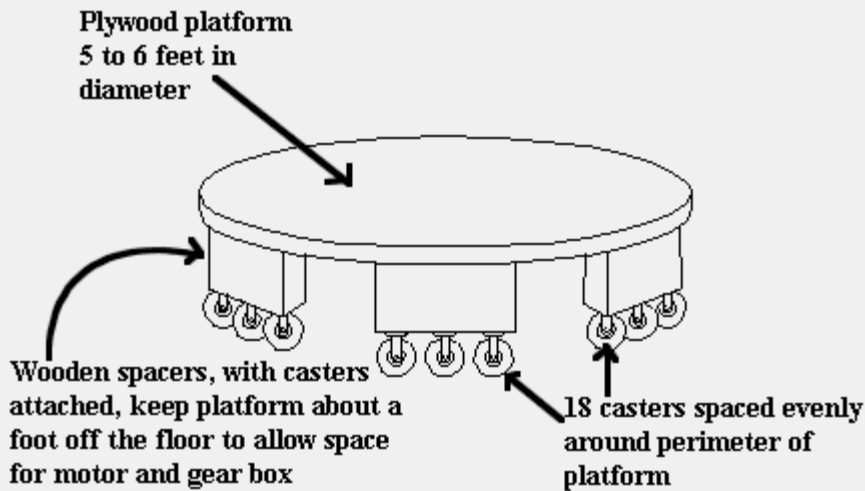
To achieve this, we made six separate spacers, made of stacks of multiple layers of 2 x 4's and 4 x 4's screwed together. We then attached the 6 spacers, 60 degrees apart, to the bottom of the platform (see picture below). To the bottom of each wooden spacer, we attached 3 heavy duty casters (your number of casters may vary).

Connecting the Gear Box to the Platform

Since we have a square shaft from the gear box sticking straight up, we need to find a way to hook that up to the spinning platform. We welded a small length of square steel tubing (big enough to fit over the square shaft of the gear box) to a heavy steel plate.

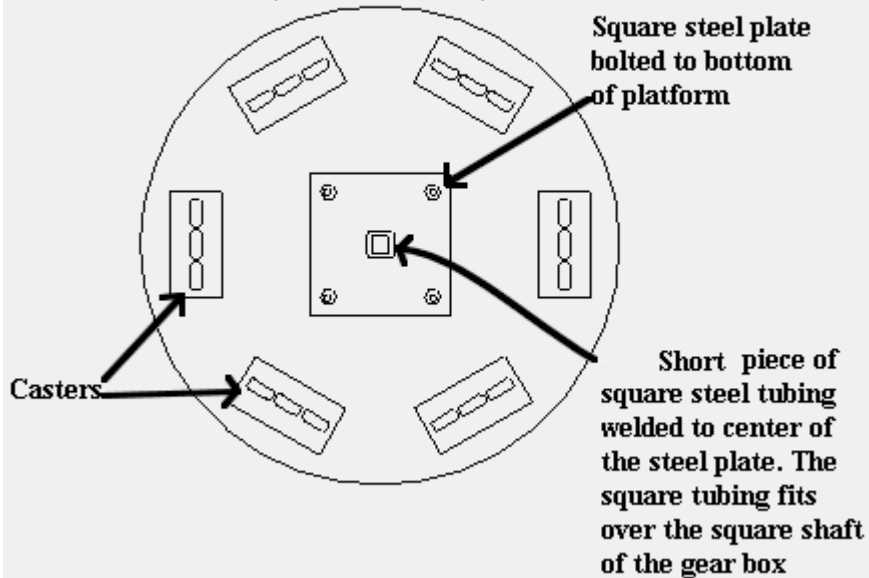
We bolted this assembly in the exact center on the bottom of the circular platform (see picture below). We made the square steel tubing extend down far enough to link up to the gear box, but not any longer than that. If you make the tubing piece too long, some or all of the weight of the platform (and the people standing on it) will be resting on the gear box and not the casters.

Spinning Floor (Side View)



Spinning
Floor
(Side View)

Spinning Floor (Bottom View)

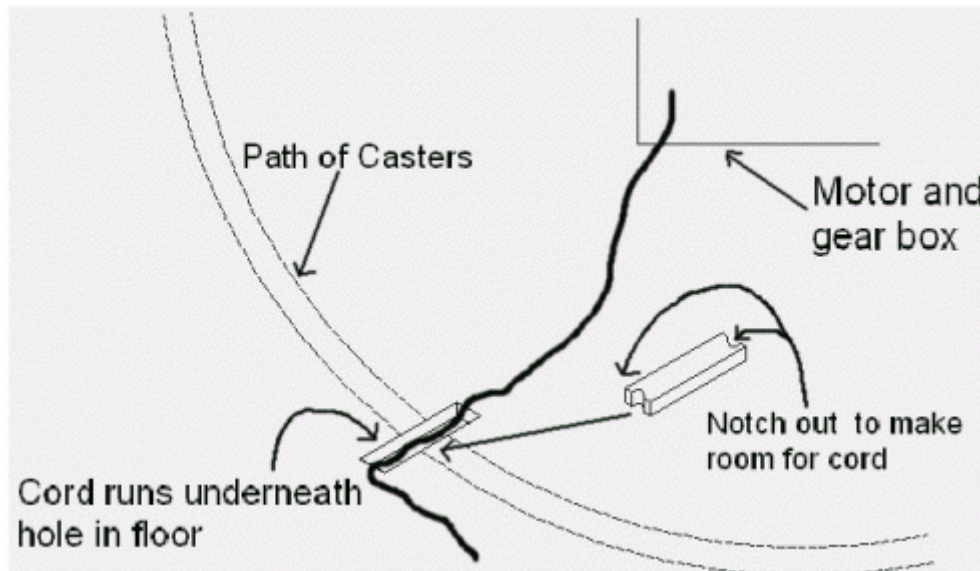


Spinning
Floor
(Bottom
View)

Power Cord

It should be noted that we had to run the electrical cord for the motor underneath the floor so it wouldn't be run over by the casters (see picture below).

A rectangular piece of the floor, along the path of the casters, was cut out. We ran the cord in the cut-out area in the floor and put the rectangular piece back in place to restore a flat surface along the path of the casters. In order for the rectangular piece of wood to fit, it had to be notched out on the sides and bottom to allow space for the cord.



**Power Cord
(Top View)**

Finishing Up

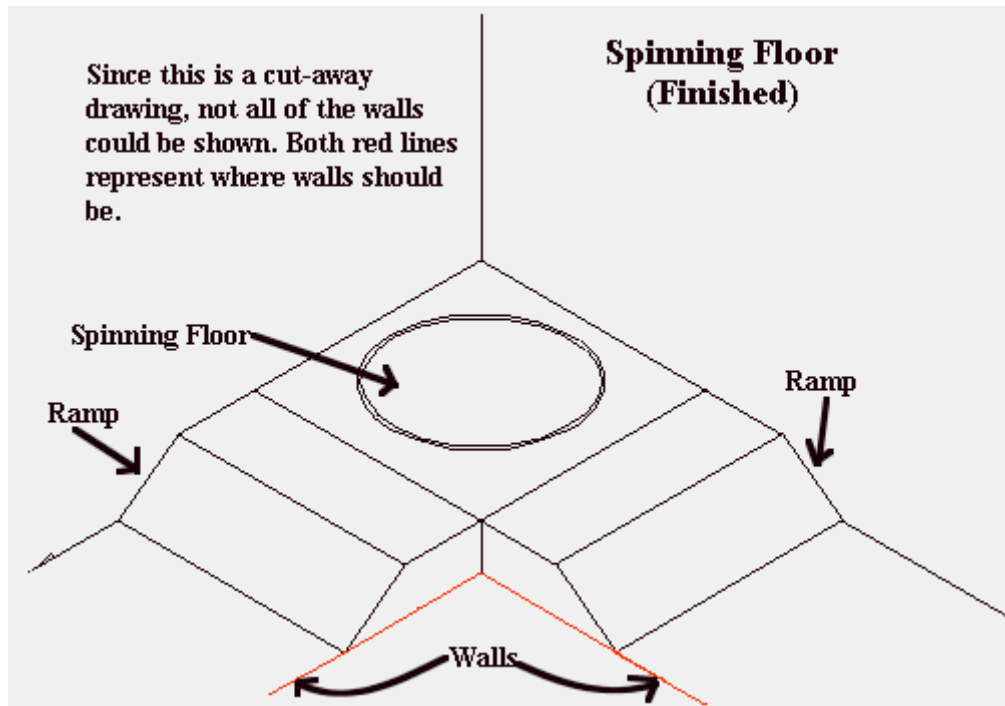
This effect is best when put in a corner. The platform and the floor surrounding it have to be a foot or more off of the floor. For this reason, you will need to build 2 ramps. One ramp before the effect and one after (see picture below).

When building the ramps, try to have a gradual incline. Customers will be less likely to trip or fall. To keep people on the spinning floor longer, you can make sliding plywood panels that close off both the entrance and exit. When you are ready to let them out, just open up the exit panel. That will make it impossible for any of them to go out the way they came in. As an added safety measure, a pinhole camera with an infrared emitter can be placed above the effect, to make sure there are no problems.

Most cameras like that are fairly inexpensive (under \$100). The infrared illuminators on the camera put out light the camera can see, but we can't. That way it is possible to monitor a room, hallway or other area in complete darkness!!!

The infrared illuminators on cameras like this usually have a range of about 15 feet or so. If a camera with built-in infrared illuminators is not available, a regular pinhole camera will work. All you have to do is buy a handful of infrared LEDs from Radio Shack (Only a couple of bucks per LED).

It will work just as well. That's what the infrared illuminators on those cameras are anyway, infrared LEDs! The person you have watching the monitor should have instant access to the power switch of the spinning floor, in case something goes wrong.



Spinning Floor