Behold, the Steampunkin!

I thought it might be a really cool idea to make an automatonic Steampunk pumpkin to terrorize my neighbors and trick-or-treaters.

Unlike in my book, where I have all the parts laid out with instructions on how to make something, this is an evolved process. Most of the materials are from the hardware store. Show them a picture of the part you're looking for and they'll probably find it for you.

Collect as many as you can of the pieces you plan to use. I know you all have large stockpiles of junk lying around.

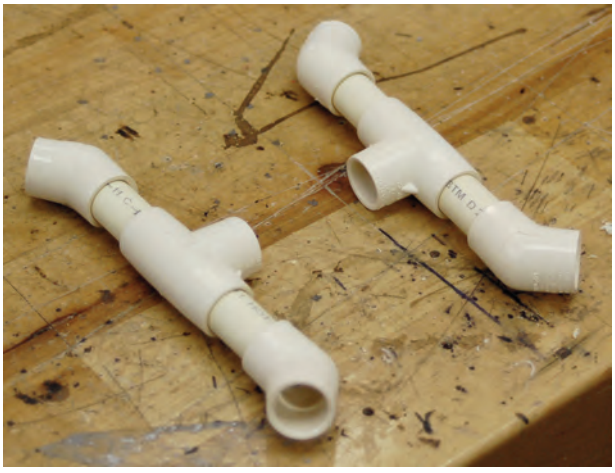
The main piece you are going to need is, of course, your pumpkin. The size of the pumpkin will be determined by what you plan to do with it and how you plan to terrorize those around you. I elected to use one roughly the size of a soccer ball. I also decided to use one of those foam carving pumpkins you can get from the craft store.

I'm going to make my pumpkin mobile, so in an attempt to resist the urge to just start hacking away at the body, I am first going to work on the legs.

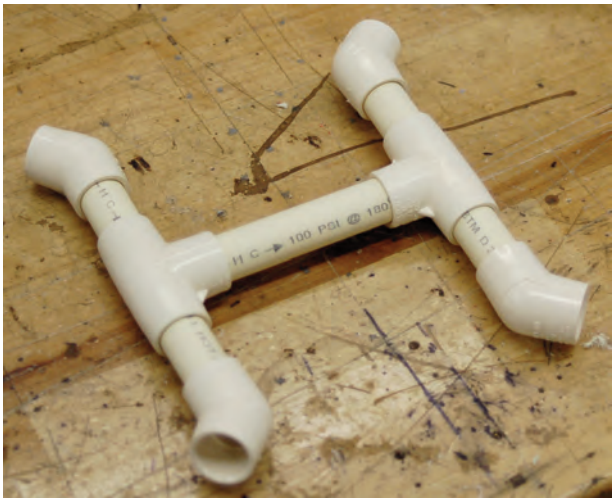
I've got various 1/2-inch plastic pipe fittings (T-joints, 45-degree joints) and a 5-foot length of 1/2-inch plastic pipe. Before I do anything, I peel off all the stickers, because they will show through the paint and it will not be impressive.

First, I'm going to cut four pieces of pipe, each about 1 3/4–inch long. (If using a band saw to cut the pipe, resist the urge to cover the blade in fake blood and scream, clutching your hand in front of your girlfriend, boyfriend, whomever. They will not be amused.)

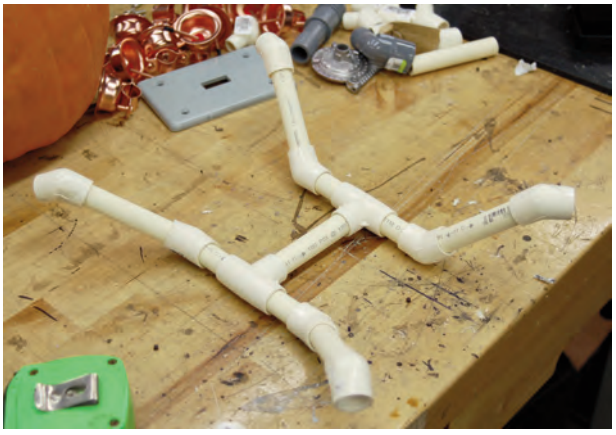
Assemble two T-joints and four 45-degree joints with the 1 3/4–inch pieces of pipe as follows:



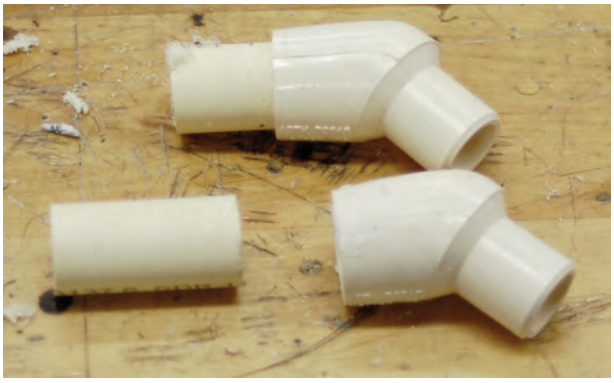
Then cut five 3 1/2–inch sections of pipe. Use one of them to connect the two T-joints together, so that it looks like what's shown in the next image.



Next, put a 3 1/2–inch piece into the end of each 45-degree joint and put another 45-degree joint into that. As long as these pieces remain unglued, the legs will remain poseable. What you have so far should look like this:



Cut four 1 1/4–inch pieces of pipe, and put each 1 1/4–inch piece of pipe into a 1/2-inch 45-degree elbow reducer coupling:

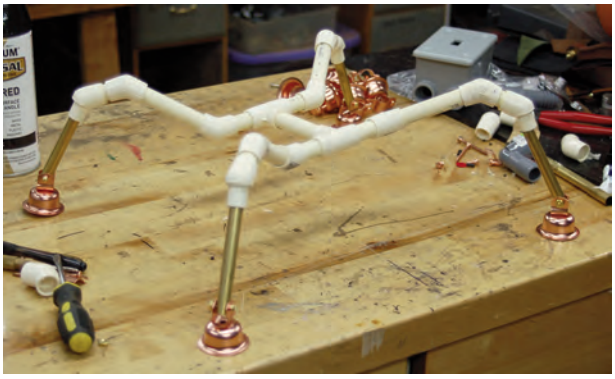


Place these on the end of the legs like this:

To add some length to the legs, I'm going to use some 7/16-inch brass pipe I happen to have. You could also use a wooden dowel (just under 1/2-inch diameter). You will, of course, want four lengths of this, each about 4 inches long.

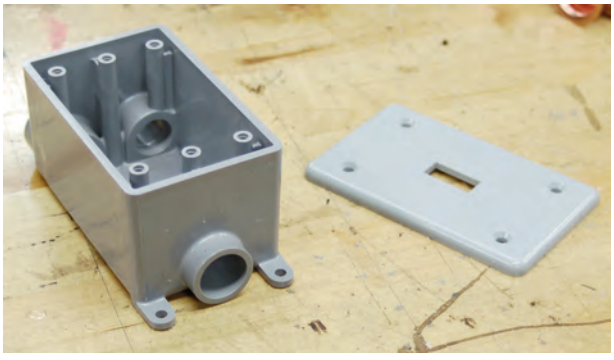
And for feet, take a 1/2-inch copper-plated bell hanger (shown at left in the next image), remove all the superfluous bits, and bend up the sides so it looks like the one on the right in the photo. Again, you will want four of these.

Using a drill press, drill a 5/32-inch hole 1/4 inch from the end of each brass (or wooden dowel) leg. Use a 3/4-inch 6-32 machine screw and a 6-32 nut at the end of each leg to attach the foot. Note that *nothing has been glued yet*. The next two photos show how the completed foot and leg assemblies should look.

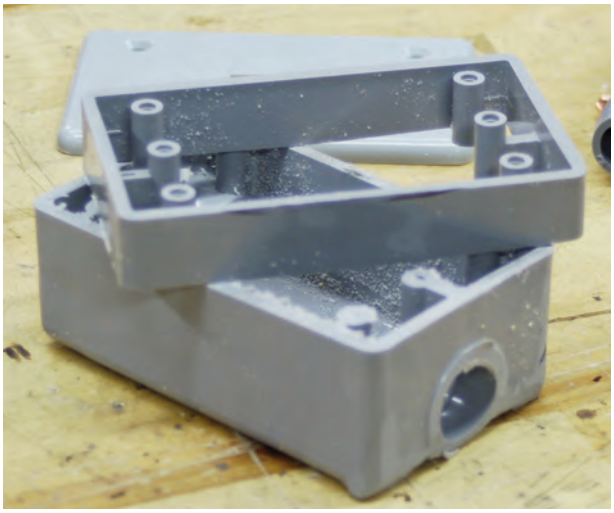


And now that I'm done with the leg assembly, I'll detach the four metal leg/foot pieces and prime the plastic parts in preparation for painting later. I'm using Rust-Oleum "Rusty Metal" primer.

So, now that the pumpkin has legs, it needs power (i.e., a boiler). I'm using a plastic electrical conduit box as the boiler. Again, be sure to peel off the sticker.



I cut off all the tabs using my band saw and then sand off any rough edges with a belt sander. Also, using the band saw, I trim off about 1/2 inch of the depth of the box.

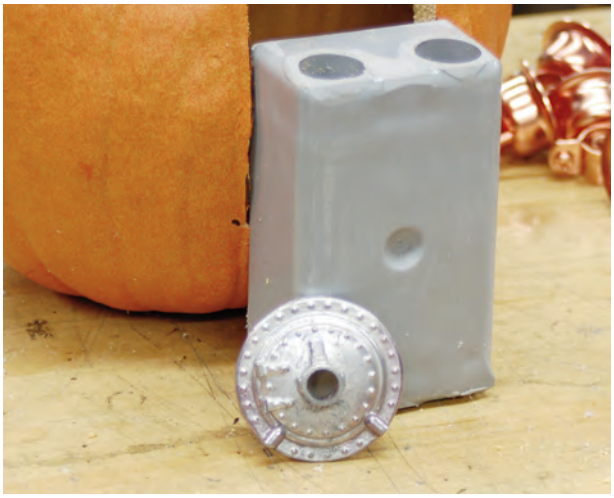


Look on your pumpkin for a flat spot. Almost every pumpkin has one, and I recommend making that the back of your Steampunkin.

Place the conduit box against the flat spot and trace out a hole for where you are going to cut in the back of your pumpkin. To do this, I'm going to use a carpenter's knife (you could use an X-ACTO knife or other sharp blade).

Stuff the boiler in the pumpkin to check the fit and adjust as needed, then remove.

I was lucky enough to attend a model train show and I picked up this really cool front boiler plate. It is Lionel scale. (You could also use the front of a toy train.) I'm going to cut off any protrusions that get in my way to prepare it to go on the back of the boiler.

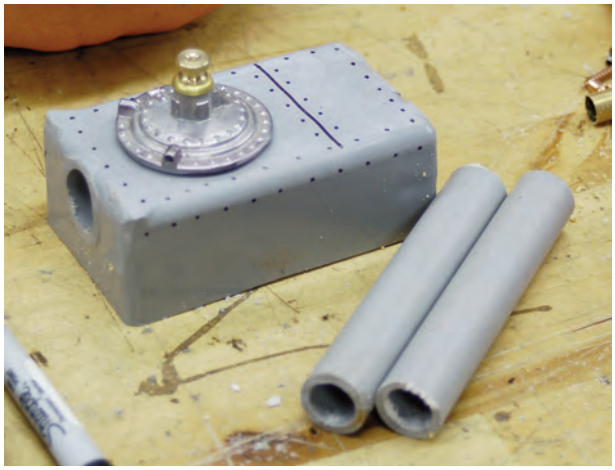


Drill a hole in the back of the conduit box to accommodate a bolt that will be used to put the front boiler plate onto the boiler. I ended up using a 1 1/2–inch 8-32 bolt with a finish washer and an 8-32 knurled nut to put it on.

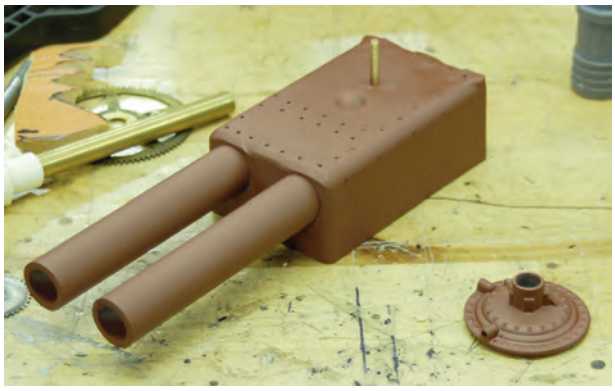
Now I'm going to make my boiler look extra super spiff.

I put a series of dots about every 1/4 inch along the edge of the boiler. On each of these dots, I'm going to drill a very small hole, about 1/16 inch in diameter. I'm going to glue a small brass brad in

each of these holes…but not just yet. What you have for the boiler should look like this:



Cut two pieces of 1/2-inch electrical conduit, each 5 inches long. Place the electrical conduit into the two holes in the top of the box and hammer them in with a wooden mallet (do *not* use a metal hammer). Make sure you insert the electrical conduit pieces before you drill the holes for your brads. After drilling the brad holes, remove the boiler door and prime the whole assembly, again using Rust-Oleum "Rusty Metal" primer.

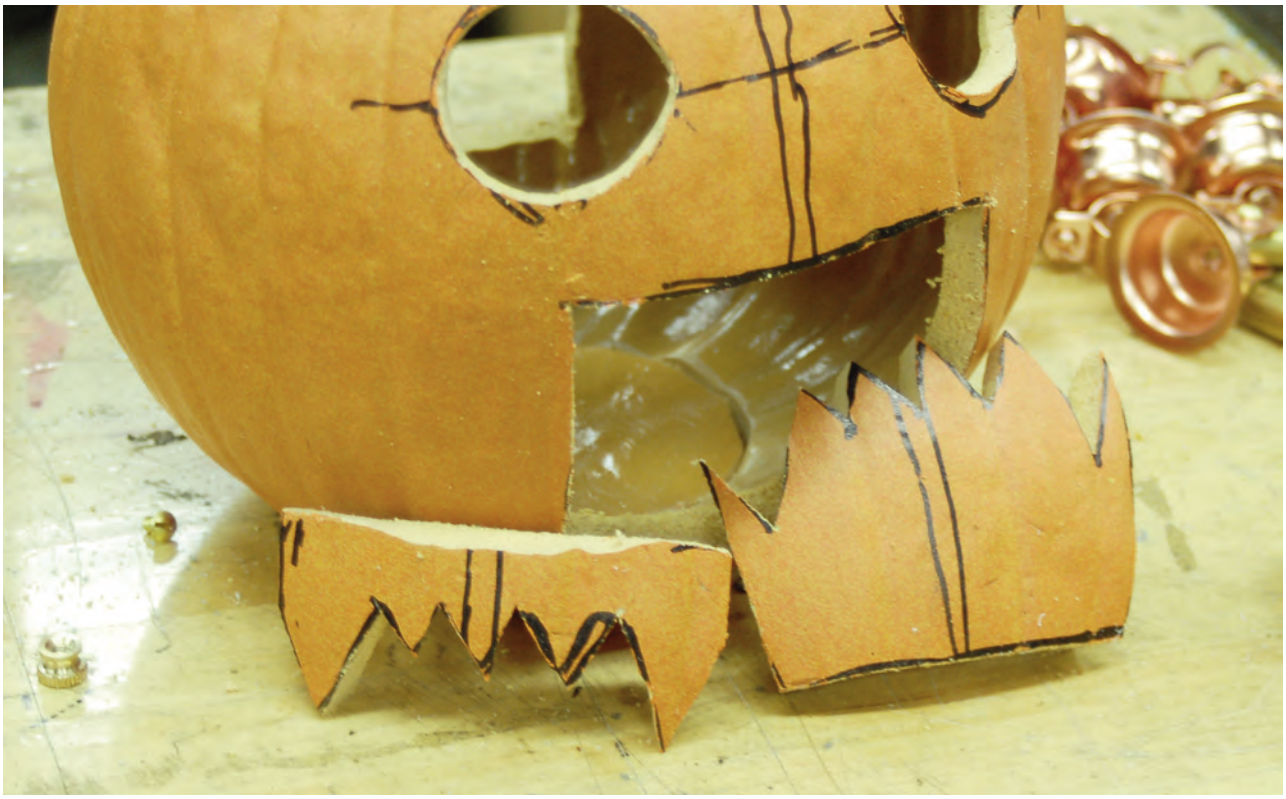


By this time, the leg assembly you primed earlier should be dry enough to paint. I'm going to use Rust-Oleum "Hammered Dark Bronze" for the PVC part of the legs.

Now I'm beginning to contemplate the face of my pumpkin. For the sake of symmetry, draw a line straight down the middle of his face and then a horizontal line across that to align the eyes. (The pumpkin will be painted, so these lines won't show.) For the eyes, I'm using leftover pieces of plumbing fittings like I used for the goggle project in Chapter 5 of my book. These will serve as gun ports, which you'll see later. I put the cut end of the fitting against the pumpkin and trace where I plan on cutting holes for the eyes.

Again, using a sharp knife—and do please be *obscenely* careful during this step—cut out the holes for the eyes.

I've decided to create a double-hinged mouth, making my pumpkin look like some kind of prehistoric fish. As shown next, the top jaw is on the left and the bottom jaw is on the right.



I've trimmed the edges of the teeth to make them look sharper and more finished, instead of just cut out. And I actually did this without slicing off my finger, which was a very real possibility.

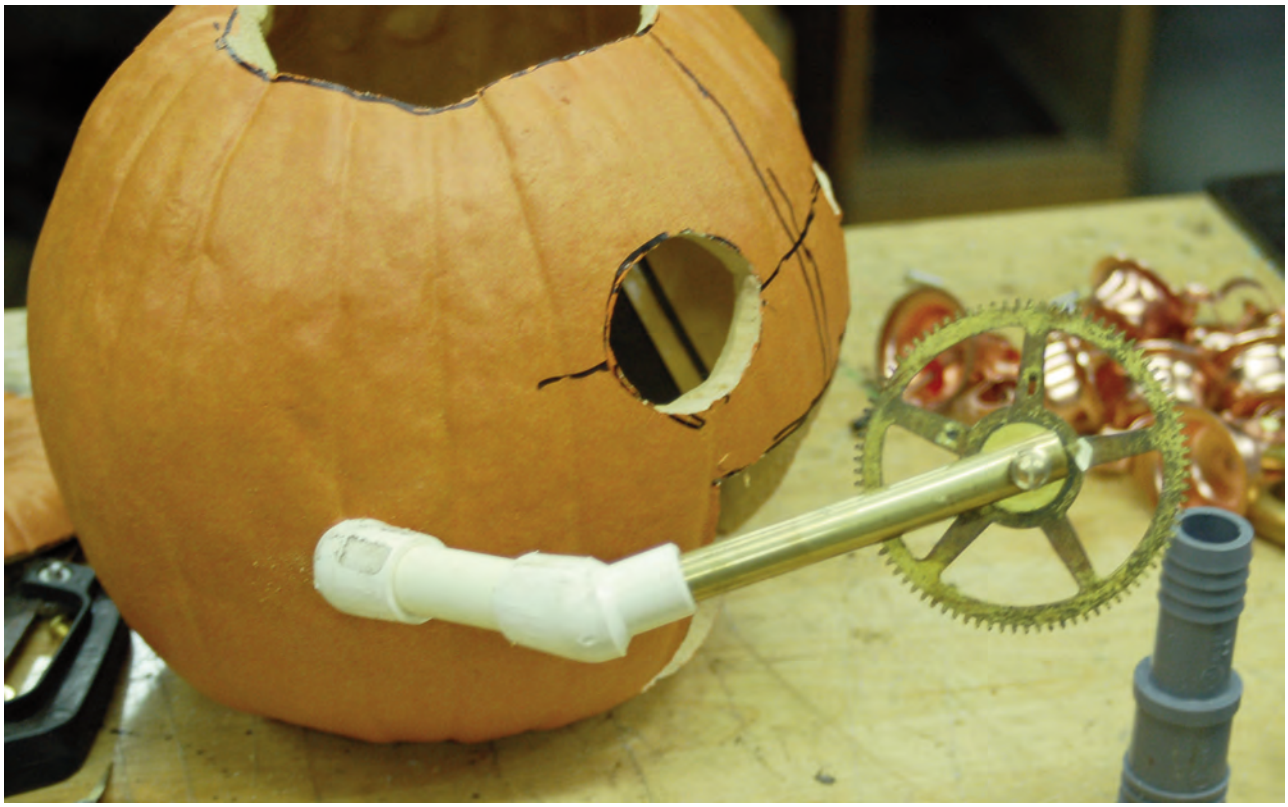
Now I'm going to do the infamous Cutting of the Lid. I want to have an opening so I can put in a light that I can turn on and off. Do I really have to explain this part? If you don't know how to cut the lid of a pumpkin, then you don't deserve to have ever been a kid. Ever.

I use the Rust-Oleum "Hammered Dark Bronze" again to paint the stem on the lid. Set aside.

Time to make the arms for the pumpkin. Use a 1/2-inch 45-degree elbow reducer coupling. Drill a hole for the reducer into the pumpkin's right side. Put a 2-inch piece of plastic pipe into the reducer coupling and put another reducer coupling on the other end of the pipe.

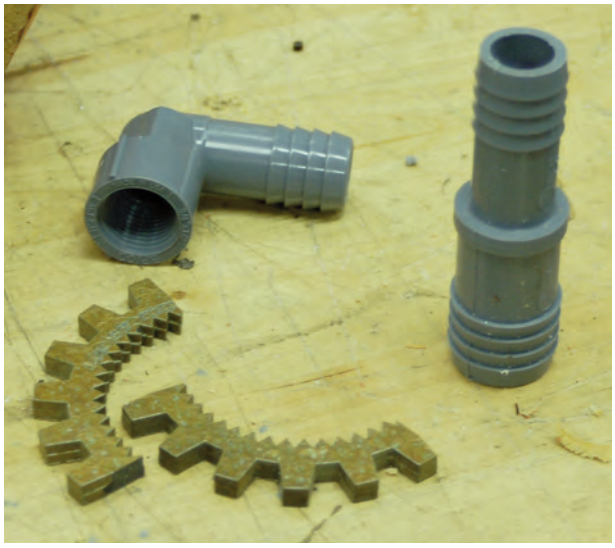
I want this arm to have a saw blade at the end, so I look for a large gear in my stockpile and ensure there's a hole in the center that can fit a 6-32 screw. Next, I'm going to cut a 4-inch piece of my 7/16-inch brass pipe (again, you could use a wooden dowel) and use a 5/32-inch drill bit to make a hole 1/4 inch from the end. Then, using my band saw, I cut a slot in the brass pipe to accommodate the gear. Make sure the slot is long enough so the hole in the center of the gear aligns with the hole at the end of the brass pipe.

To secure the blade, I'm using a 6-32 1-inch screw. First I put a 6-32 knurled nut all the way down the screw, then slide the screw through the brass pipe and gear, and secure it on the other side of the pipe with another 6-32 knurled nut. The next photo shows how your resulting arm (of death!) should look.



Now, remove the arm and prime the plastic parts with Rust-Oleum "Rusty Metal" primer. And if you made any marks on the brass pipe for the hole or the slot, be sure to wipe off any excess marker ink with Goof Off or some other solvent.

Construct the other arm out of this broken plastic gear (cut off of a toy) and these two 1/2-inch plumbing fittings. Show this picture to the plumbing person at the DIY store; if they cannot identify these fittings, have them fired! Repeat this till you find someone who knows what they are doing.



Sand down the narrow end of the straight plumbing fitting so that it fits into the widest end of the elbow plumbing fitting. Assist the fitting with a wooden mallet if needed. Mark a position on your pumpkin opposite from the other arm. To accommodate the narrow side of the elbow fitting, I'm using a 3/4-inch wood boring bit on my hand drill to cut out a hole at the spot I marked.

Cut a slot in the wide end of the straight fitting, which will be the wrist, to accommodate the gear pieces, which will be used as pincers. Use a dab of super duper incredi-glue to hold the pincers onto the wrist in an open and menacing position. So far, this is the only piece requiring glue. Let the superglue dry for 5–10 minutes. The completed arm should look like the next photo.

Remove this arm and prime the plastic parts (including the pincers) with Rust-Oleum "Rusty Metal" primer.

Do *not* give in to the temptation to forgo priming!

Speaking of priming, your boiler and boiler door should be ready to paint now. For this I'm using Rust-Oleum "Hammered Black." Let it dry. Later, you'll probably be thinking, "It's almost done. It's only a little bit sticky." You should let it dry overnight. I didn't.

Place the boiler door back on the boiler and secure with the knurled nut you were going to put on it in the first place. (You did save it, didn't you?) Remember all those teeny holes you made? Take a small spot of superglue to the ends of those little brass brads and start inserting them into the holes. It will add a really cool little level of detail. I assisted my brads with a small tack hammer.

Now it's time to prime the pumpkin. Be sure to blow or wipe off any dust that may have accumulated on the pieces while you were carving them. Use the same "Rusty Metal" primer.

By this time, the primer on the arms will be dry enough that you can pretend that handling them is a good idea, so paint them the same Rust-Oleum "Hammered Dark Bronze" that was used on the legs.

Now, paint the inside of the pumpkin "flat black" and let some of the black overspray through the holes. This gives the pumpkin a bit of a burned effect around the edges; now it looks extra-creepy and keeps me up at night. The color of the primer is actually really good for the surface of our infernal device, so don't paint another color over it.

Take more of the brass brads and put them in strategic rows down the side of the pumpkin to look like rivets. They push easily into the foam of the pumpkin and shouldn't need to be glued. Place them about every 3/4 inch. You could also space them 1/2 inch apart but that gets really tedious. I would suggest placing the brads around the eye, mouth, arm, and boiler holes for added effect.

Next, use four long straight pins with black heads (you can find these at fabric and craft stores) to secure each end of the jaws to the pumpkin. The Steampunkin looks like this:

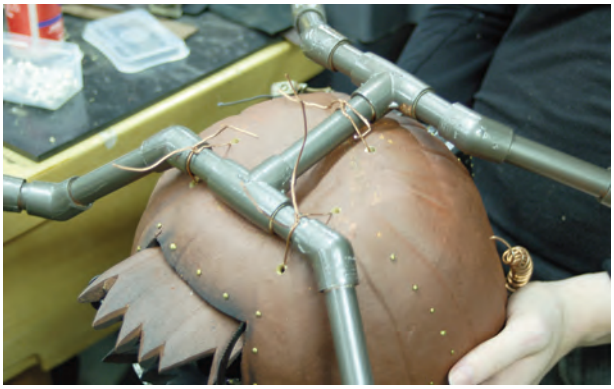
Now we can add the oculars. First, make sure the nut for the fitting is attached to the uncut end. Insert the cut end of the fitting into the pumpkin until the nut rests against the surface of the pumpkin and secure with some two-part, 5-minute epoxy. (By the way, if you want to know how to use two-part epoxy, read the instructions on the bloody box.) 5-minute epoxy means you have five minutes to work with it after you begin to mix it up, before it becomes stiff.

Once the oculars are installed, it's time to tinker with two little cannons I have that will be inside them, since the eyes are, after all, gun ports.

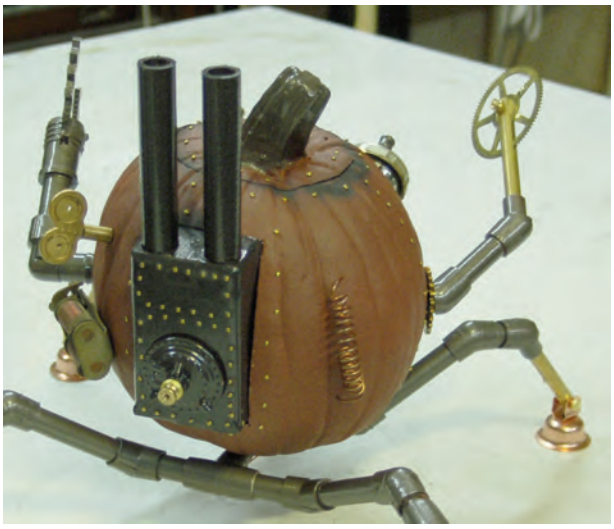
Trim down the carriages of each cannon, so they will fit into the oculars. For this, use a rotary tool or any other tool you think will get the job done.

Next, add some ornament—coils and things like that. The foam is so easy to work with, you can just stick things right in there. Feel free to add any kind of accoutrements you like.

I'm thinking it's time to attach the plastic leg assembly. Just poke some holes in the bottom of the pumpkin and wire it to the leg assembly. But place a couple washers on the inside, to keep the wire from pulling through the foam. Here's what the underside of the pumpkin looks like now.



Now it's time to glue the metal leg/feet pieces into the plastic leg assembly. And then glue in the boiler. Again with the 5-minute epoxy. Also, it's time to install the arms. Epoxy them, if necessary, but they should stay in without it; plus you can pose them if you don't epoxy them.



Epoxy the cannons inside the eye sockets. They're a bit heavy, so shovel some extra epoxy in there, just to be safe.

Finally, place a flashing, red LED light from a Halloween shop inside the pumpkin and return the lid. The stem should be dry by now.

There you have it! Let your reign of terror begin!