Mark’s Place

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Giant Lightweight Black Widow Spider Halloween Prop How-To

History

One of the the experiments I tried over the years that worked extremely well was a giant spider hanging in a web on the side of the house. This turned out to be such an attention-getter that I wanted to do another this year, but to make it really cool looking and to make it sturdy so I don't have to make a new one each year. The old one was made out of a black plastic garbage bag with crumpled newspapers inside it to give it some depth. The legs were made from black pipe insulation tubes.

Concept

I knew I wanted it to be BIG, somewhere around 4 or 5 feet long with 6 foot legs. I also knew it had to be pretty light as it had to hang from the web, not just sit on a roof or the ground. I liked the idea of the black foam pipe insulation tubes for legs, they are long, black and very light. For the body I decided I would use the expanding insulation foam (Great Stuff is one brand) which would make a rigid but lightweight shell for cheap. The decision also meant that the body would not be smooth but would be all bumpy and gnarly...which is what I wanted. For a smooth one, you could use paper mache instead of the foam.

I decided to use PVC pipe for the "skeleton", its cheap and pretty light and a lot of stuff can be done with it. The last thing I needed was some kind of frame that the foam could be sprayed onto. Originally I thought of using a balloon (the concept came from Steve Hickman on his excellent Alien project page) but 4 foot balloons are pretty expensive and I really wanted the back side to be flat so it would hang from the web correctly. Instead I opted for a half sphere made of tubing with cheap plastic stretched over it. Incredibly light and won't rust/rot/decay...in fact the whole completed spider body (without the legs) weighs only 11 pounds.

Originally I was going to go with a classic tarantula...however in checking out some spider toys to use as models, I found the tarantula has a 3 segment body..making my work that much harder. Instead I opted for a Black Widow spider, which has a 2 segment body, the small front piece with the legs coming out of it and the large rounded back segment.

The real thing

Construction Details

Materials Needed:

- 60 feet of 1/2" thick-wall PVC sprinkler pipe
- 30 feet of 1/2" Rain-Drip "Poly Hose"
- 12 1/2" PVC "T" connectors
- 4 1/2" PVC 90 degree elbow connectors
- 6 1/2" PVC 45 degree elbow connectors
- a roll of 1/2" sprinkler tubing
- cheap plastic drop-cloth
- 2 large hooks with drywall connectors (long bolt with metal bracket on back end)
- 10 cans of expanding foam insulation
- misc. stuff: pipe glue, duct tape, etc.

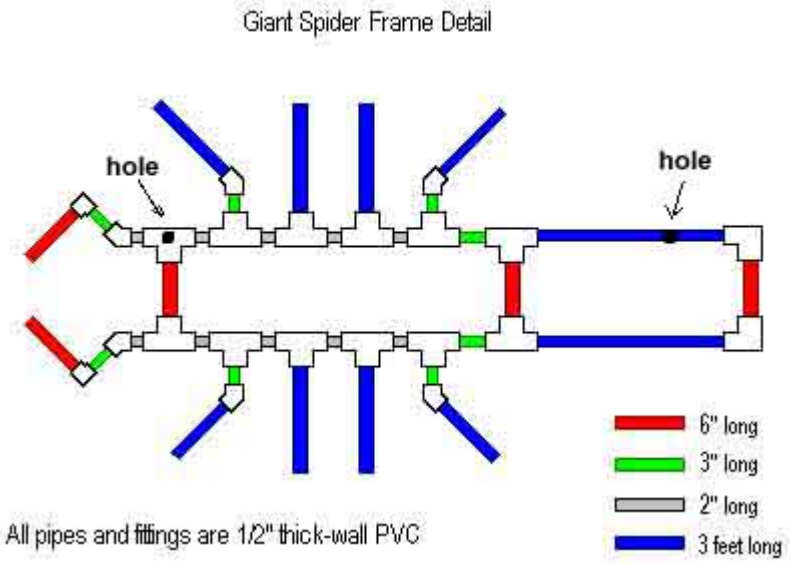
Part 1 - Building the skeleton

Getting the skeleton right is the key to making the spider look decent and be strong enough to work. Basically the concept is to cut the pipe in various length sections and glue the fittings to them in a shape that will allow the legs to stick out correctly and the big bulby back end to be secured.

Cut the pipe into the following lengths. Note, I use a simple hacksaw to cut the plastic pipe..

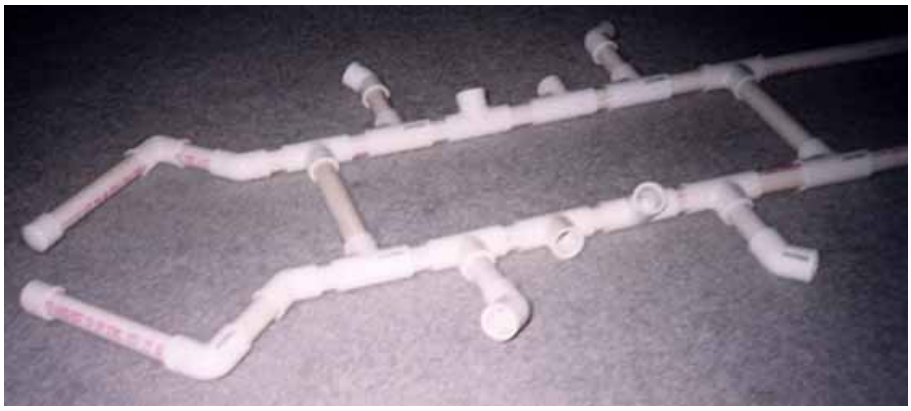
- 10 - 2 inch long sections
- 8 - 3 inch long sections
- 5 - 6 inch long sections
- 10 - 3 foot long sections

Assemble the pipes and fittings per the following diagram, Note: don't glue them right ..always dry-fit (i.e. just pushed together) first to make sure everything fits ok, then glue.



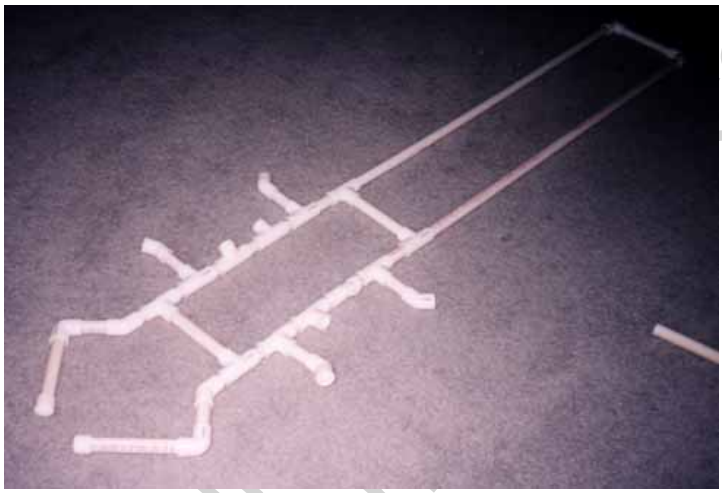
Note that the length of the blue (3 foot long) pipes is not to scale - the picture would be too big if I did it that way.

Note how this will work.. on the left is the "pincers", which don't really exist on a Black Widow but are just too cool to pass up.. The small body will go from the first 6" crossbar to the second (about 17 inches long) and the great big bulby section will go from the 2nd crossbar to the far right crossbar (about 3 feet).



The 45 degree connectors on the legs are to keep all 4 legs on each side from looking exactly the same (i.e. sticking straight out). Also, I tipped the connectors up on most of the pieces so that I could put in legs with joints in them.

Glue the fittings and pipes together as shown in the diagram. As you can see from the picture, I tipped up a couple of the "leg" connectors so when the legs are attached they will stick out, don't tip them up too far. I took two of the 3 foot pieces, put an extra 45 degree connector between them and stuck it to the "T", that way you know exactly how far to tip the "T" up from horizontal.



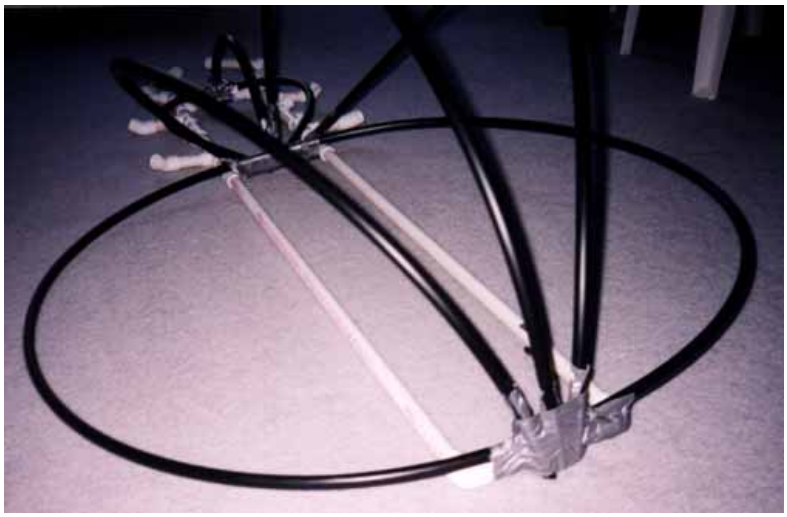
Now for the hangers...Drill holes in the tube on both ends (about where the dot is on the diagram) and connect in the hanger. It is designed for sheetrock so it has a long bolt and a connector for the back, slide the bolt through the tube and connect the back connector and tighten down. The picture is a bit fuzzy but you can see the "hook" on the left of the tube, the bolt sticking through and the long silvery thingie on the right of the bolt holding the hook to the tube.

Part 2 - Building the Body

Now that the skeleton is done, we need to make the body. Since the expanding foam is pretty tough and strong itself, all we really need is something to give it the right shape....remember that whatever we use will be inside the hollow body...I originally started with a balloon, then went to cardboard, and ended up with Poly-Hose..this is the big drip tubing for outside watering...its lightweight, cheap and strong enough for our purposes.

For the BIG body - Cut 10 feet of tubing and form into a big circle. Using duct-tape, tape the circle to both the front and middle cross-pieces.

Now cut three 5 foot pieces and tape one so it sticks straight up and the other two at 45 degree angles, all three pieces tape back down to the cross-pieces again. Don't worry if its not exact. You should now have what looks like an upside bowl or half a ball. Note, I have since discovered that the sprinkler tubing I used has "T" connectors which would work far better than the duct-tape.

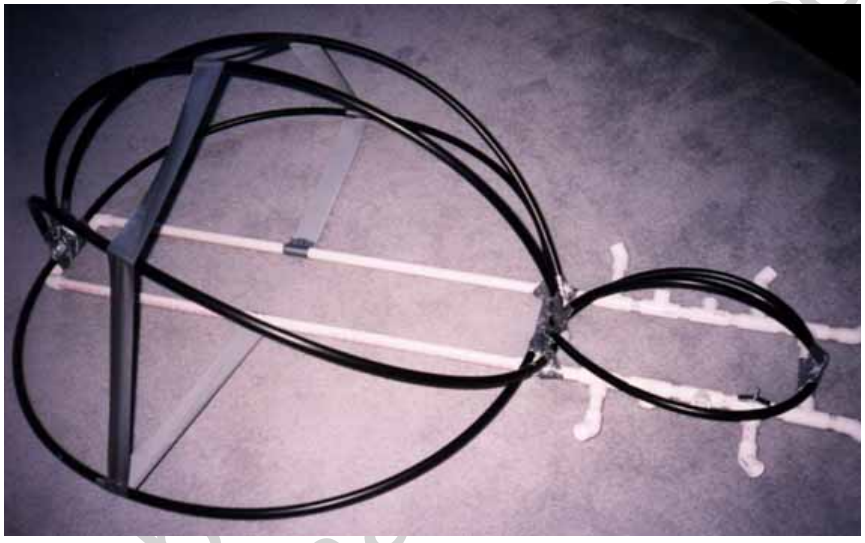


Now for the small body - Cut a 44" piece of tubing and tape it between the front cross-bar (next to the pincers) and the middle one. Since when it was fully rounded it stuck out over the leg openings too far, I crimped it and made it more football-shaped.

Then a 15" piece that goes up and over and tapes in place and the small body section is ready.

Now to make sure the 5 foot pieces don't move around too much, take a long piece of duct-tape and run it up and over the middle of the circle, using it to tape the 5 foot tubes to the correct spot.

GOTCHA - If you look at the picture you'll notice one of the tubes bowed out towards the front leaving a large area that ended up dipping downward when I put the plastic on...my recommendation is to use "T" connectors in a star-shape or at least another piece of duct tape towards the front to ensure everything stays in place....



Once everything is in place, we are ready for the plastic sheet. I used a 99cent disposable drop-cloth from the painting dept. drape it over the big circle

and pull pretty tight, though don't deform the tubes. Tape as best as you can underneath the body (we'll do the underside after the top is done). Do the same with the small body segment and we are ready for "skin". Note in the picture the spider is resting on a table, those are not its "legs" sticking down.

Part 3 - Building The "Skin"

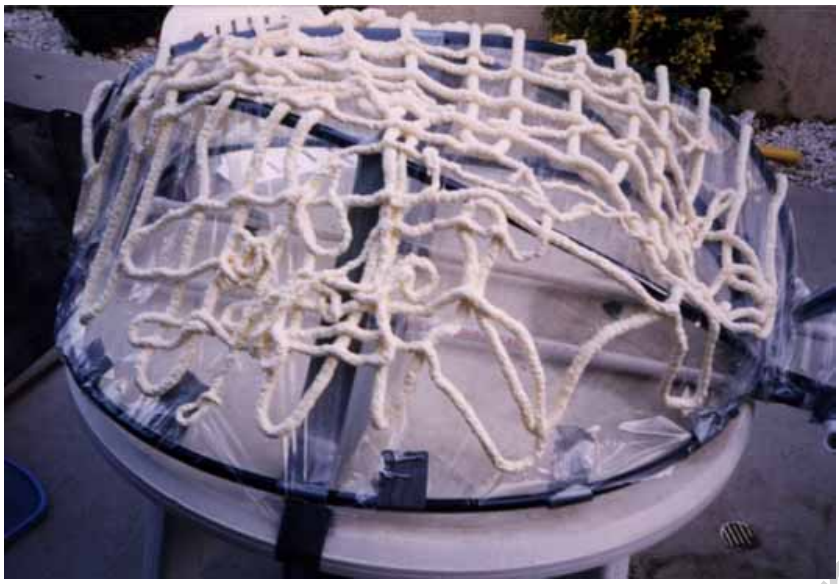
The skin is what sets this spider apart from the rest of the pack.. Although the real black widow is shiny and smooth I really wanted a knobby gnarly weird looking thing that would make people stop and wonder.

The actual process of building the skin is a simple one, start taking cans of the expando-insulation foam and spraying it on the plastic. I tried for full coverage...which means covering the bottom as well, because the foam was the primary strength and durability of the spider.

GOTCHA - Don't rely just on the plastic tubing to give it the right shape..in the first picture you can see how the plastic sheet kind of caves inward leaving ridges and valleys that must be built

up with foam to give it a rounded appearance. After the picture was taken I stuffed a bunch of wadded up newspapers inside to "bulge" out the plastic...

GOTCHA - beware of using the right kind of expanding insulation foam...I accidentally purchased a can of "minimally" expanding foam and comes out as a big string. This first picture is a whole can of it on the spider.



After that I switched to a full-expansion brand - it says "33% more free" on it and it came out of the nozzle (I didn't use the long tube) and kind of splattered....then of course it "expanded" and made the bumpy texture I was looking for. This next picture shows the body mostly completed, just a few sections left to cover..but you can clearly see the texture of the end result.

GOTCHA - be careful to put tubes into the "leg" holes when doing the foam otherwise you'll cover them up..notice in the picture above I've put in tubes for the legs on the far side.. I removed the close side for the picture.

Part 4 - The Legs

I didn't get any pictures of the legs...but construction is pretty straightforward. Each of the bent legs is two 3 foot sections of pipes glued together by a 1/2" 45 degree elbow. (the last picture shows this clearly)...

Then the black foam insulation tube is cut in half and slipped over both ends. I used duct tape to tape the two ends of the insulation tube to the "knee" of the leg. Some black spray paint and the whole thing is black and proper looking.

GOTCHA - don't try to just slip the whole tube over the elbow, the extra size causes the tube to split.

You'll need to trim the ends of the foam tube a bit so that the pipe sticks out and can be connected to the spider body.

I don't glue the legs into the body, just tightly inserting them into the connectors on the body holds it all together and allows for disassembly and easy (relatively) storage after the season.

Part 5 - Painting

I used a can of shiny black paint to cover the whole thing..it doesn't get all the way down into the crevices and cracks and the light yellow can still be seen deep down inside (a plus!)... The photo below shows it about half painted.

After the main black, I took a bottle of "Stiffy" - this is a small bottle of glow-in-the-dark fabric stiffener - I diluted it 3 to 1 (a cup of water mixed in) so it was water-like and sprayed it over the

body with a squirt bottle...because it was so runny it ran down into the cracks and then the water evaporated leaving a cool-looking coloration that glows under black light.

Of course the signature coloration for a Black Widow spider is the "hourglass" on the back of the body. I got a can of fluorescent Red spray paint and made a mask of a piece of notebook paper which I cut a large hourglass shape out of. The picture below shows the paper and the body ready for painting.

The disadvantage is that the surface is bumpy so it oversprays a bit..I ended up having to do a little cleanup with black when I was done...you can see the end result with the picture at the top of the page.

Ending

When completed it weighs 11 pounds without the legs, and is easily carried and is pretty strong and waterproof. One of the good things is its ability to handle damage. While carrying it I

whacked it into the side of the house and knocked off a bump of foam. A simple squirt of spray paint and its an unrecognizable bump amongst the others.

Note: Because it was so light, I was able to store it easily, by hanging it upside down with some bungee-cords to the ceiling in the garage.during the offseason.

And there you have it.. a large unique looking Halloween prop that will become a signature piece in your display. When talking about our house for years afterwards we were easily recognizable as the "house with the giant spider"