Bubble Tank

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TOOLS:
- Drill (1)
- Drill bit (1)
- Drill bit (1) the diameter of the air tubing
- Duct tape (1)
- Hot glue gun (1)
- Large drill bit (1) (any big size actually)
- Soldering iron (1)

PARTS:
- Fish tank or bowl (1) at least 1 gallon
- Air pump (1)
- Tubing (1) to fit the pump
- Bubble stone or wall that fits the tubing (1)
- Bags of pebbles (1) I got mine from the dollar store.
- Acrylic sheet (1)
- 4" PVC drain (1)
- Battery holder (1) (or AAA)
- Radio Shack 5mm 7-Color LED (1)
- Wire (1)

SUMMARY

This project will show you how to build a tank that holds water and blows a bubble tornado in
it. A color-changing LED illuminates the bubbles providing a relaxing effect. This one cost around $40. For $12 more, you can provide a different color motif for each month.

**Step 1 — Bubble Tank**

- The LED illuminating the tank changes colors. Pictures 1, 2, and 3 show the light's effect.
- First, drill a hole the same size as your pipe, about 1 inch above the bottom.
- Cut approx 6" off of the 5' of tubing. Wrap a piece of duct tape around the tube an inch from the end. Then push the tube into the hole until there's enough room for the bubble stone.
- Hot glue the pipe to the bowl.
Step 2

- Connect the bubble stone on the inside of the bowl, then cover the stone with pebbles. You can use a different color of pebbles for each month, but this costs an extra $12 (assuming that you buy your pebbles at the dollar store as I did!).

- For example, because the tank takes 1.5 bags of pebbles, for Halloween you could use 1 bag of orange pebbles and a half bag of black pebbles.

- Connect the check valve so that the white arrow is pointing towards the tank. If you connect it the wrong way and run the pump, it will burn out the pump. Then connect the rest of the tubing to the other end of the check valve. Connect the pump to the other end of the hose.

**NEVER EVER CONNECT THE PUMP WITHOUT THE CHECK VALVE!! WATER WILL RUN DOWN THE PIPE AND SHORT THE PUMP.**

Step 3

- Connect the Rainbow LED to the power supply and the momentary switch to the last pin on the LED. Then connect the switch's other terminal to ground.

- Cut a piece of acrylic to fit the top of the tank. Drill a 5mm hole in the center of the piece to mount the LED in. Use the biggest drill bit that you have to drill 4-8 vent holes around it. **DON'T USE THE FLAT TYPE OF BIT OR YOU WILL CRACK THE ACRYLIC.**

- Mount the LED in the hole pointing down at the water and use the 4" pipe "drain" to cover the electronics.

- Drill a hole in the side of the cover for the power cables.

- Sorry about the pictures. I took them all after it was assembled. I also left out some photos and schematics because the resolution was too small.
If you have any questions, just ask. I get on M:P pretty much every day. =)