



## PVC Flicker LED Candles

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## Intro: PVC Flicker LED Candles

This how to will show you how to make a 3 tiered PVC candle with flickering leds, pvc pipe and hot glue!

These could be used for Halloween, Weddings as centerpieces, home decor and gifts!!

I bought all my PVC items at Lowes due to that the cap and bushing they sell fit into the pipe they sell the best.

### Materials needed

12" 1-1/2" Pvc pipe ft

10" & 8" 1-1/4" Pvc Pipe

2x 3/4" slip cap PVC

1x 1" threaded bushing PVC (hexagon head)

3x 5mm Flickering LEDs

6ft of Speaker wire 18 awg

12v 1amp power supply

Female DC pigtail connector

### Tools needed

Drill

Hot Glue gun & sticks

3/16" 5/16"(or bigger) for the holes in the base of the pipe

11/64" (LED HOLES IN THE CAP AND BUSHING)

Electrical tape or solder and heat shrink tubing

Wire strippers

Chop saw or PVC cutters to cut the pipe and the angles

I purchase some of my items from the links below

### Flicker LED's

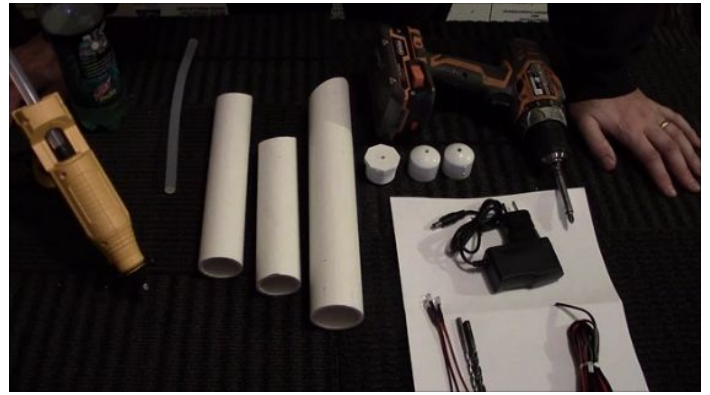
[Speaker wire](#) can also be used as main line power and then splice off this speaker wire with more and then to the LED spots or candles throughout your display

### Pigtails

[Power Supply USA](#)

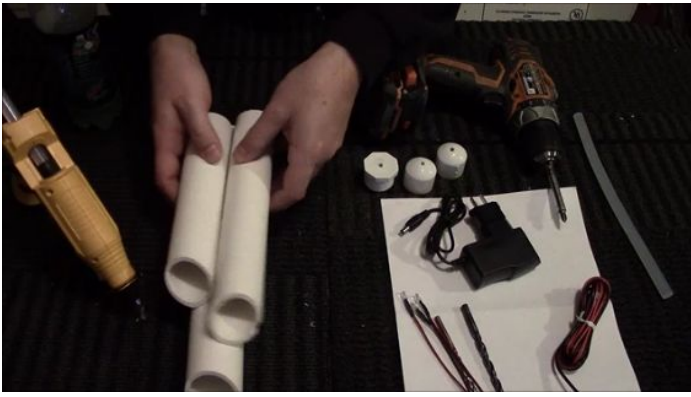
[Power Supply China](#)





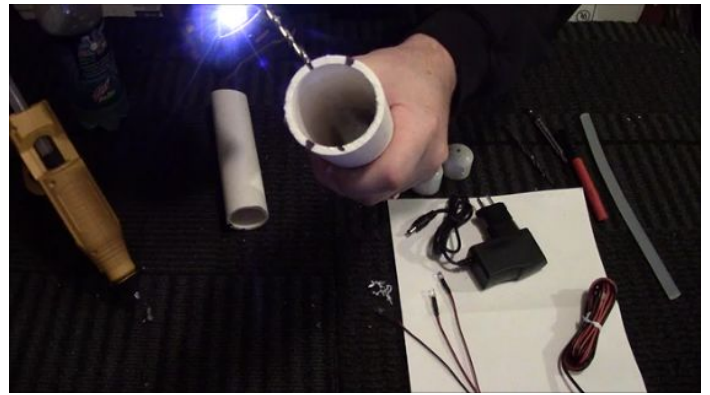
### Step 1: Gather and Cut

Gather your supplies and cut your pipe to your desired length. I cut them 12" for the 1-1/2" pipe and 10" & 8" for the 1-1/4" Pipe. You can cut the angles when you cut them the first time or after you cut the lengths you want. Be warned there are shavings that will fly and also fill the inside of the pipe so turn them into a bucket or garbage before moving on.



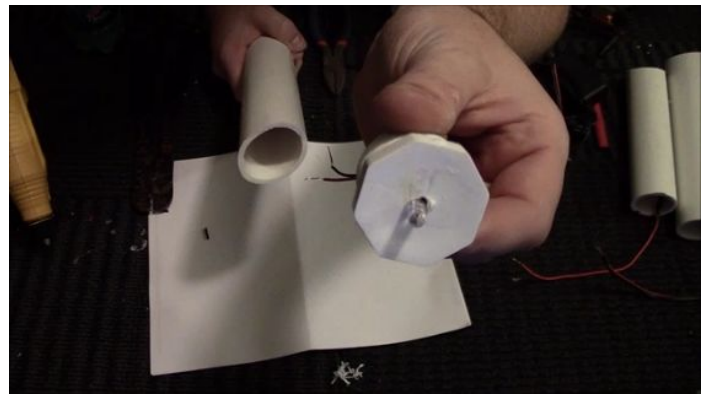
### Step 2: Mark and Drill Holes in the PVC

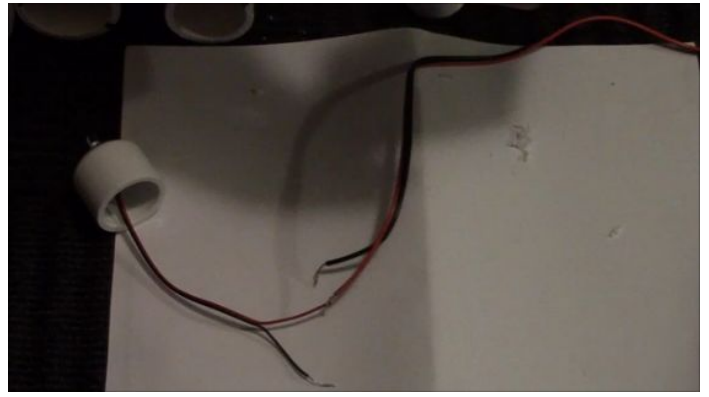
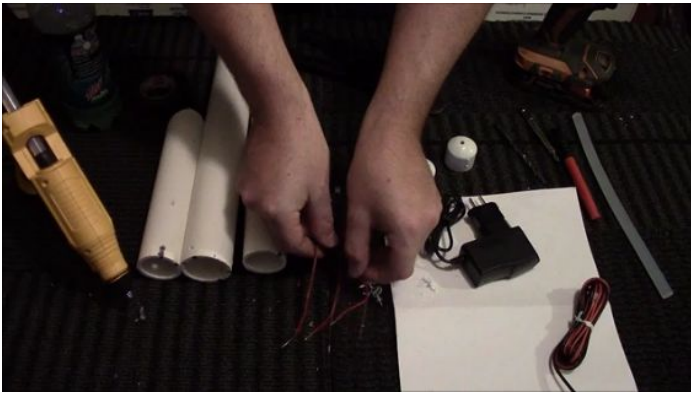
Fit the pieces together so that you get a 3-tiered effect or however you want to arrange them. Turn them so the flat ends are facing you and mark where the smaller pipes connect to the bigger pipe and then make one mark where you want the wires to exit the big pipe. Drill holes using the 5/16" drill bit (you can use smaller like 3/16" but it might be easier to use a bigger drill bit so you won't have to be as accurate on your hole locations), and then drill a hole on the big pipe for the wire exit. Try to get the holes to line up, you can measure from the pipe edge or just eye-ball it.



### Step 3: Cap holes and wire connections.

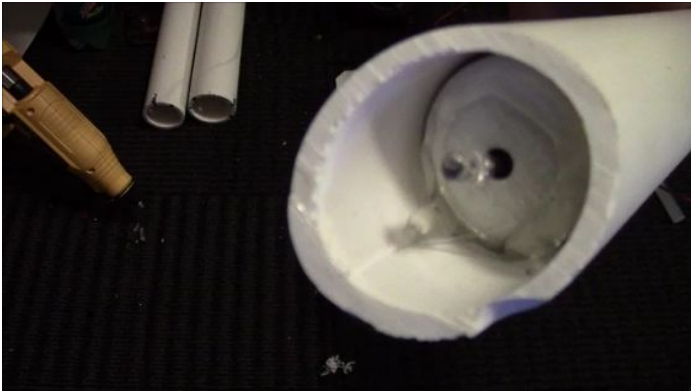
Set aside those pipes and take your 3/4" caps, 1" bushing and an 11/64" drill bit. Drill a hole into the center of each cap/bushing to create the hole for the LED. Strip the wiring insulation from the LED after you thread it through the hole. Cut a piece of speaker wire that is about 1ft long or so. Connect the wires together using soldering and heat shrink. (you can use electrical tape as I know many people do, just beware if you put it outside you could have problems, don't come after me!!). You can also use wire connectors that you crimp onto the wires as well, again indoors only if you do that.





#### Step 4: Fit the caps in and glue them.

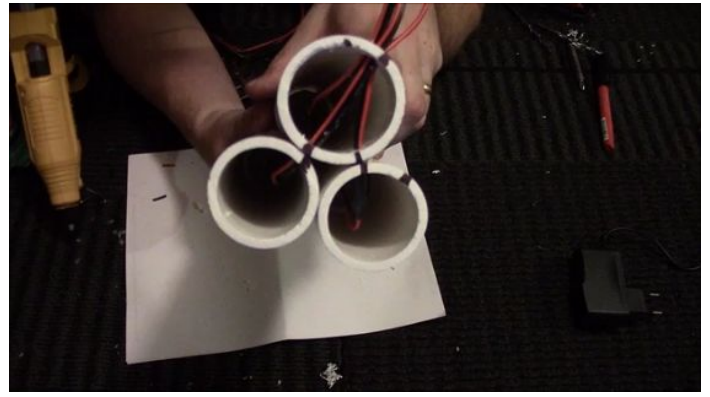
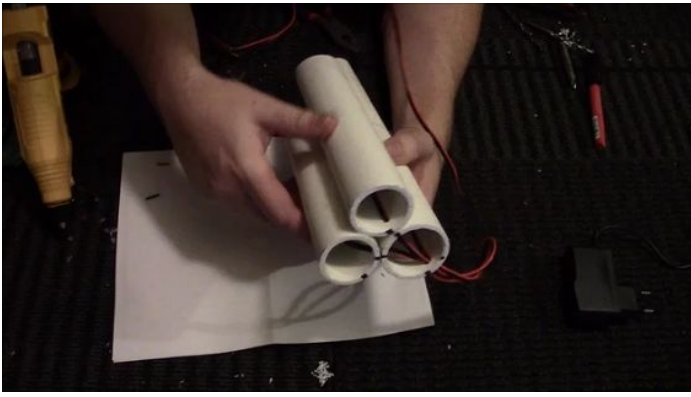
Take the cap and push it into the 1-1/4" pvc pipe leaving the bulb just below the lowest edge. Run a bead of hot glue around the top of the cap to glue it to the inner wall of the pipe. You can put a ring of glue in first and then insert the cap from the bottom and then using a stick or something you can push the cap into the glue, but be quick. Do this with each pipe and on the bushing piece inside the 1-1/2" pipe you'll probably need more glue to fill in the gaps and make sure it's secured.



#### Step 5: Wire routing and glue the pipes.

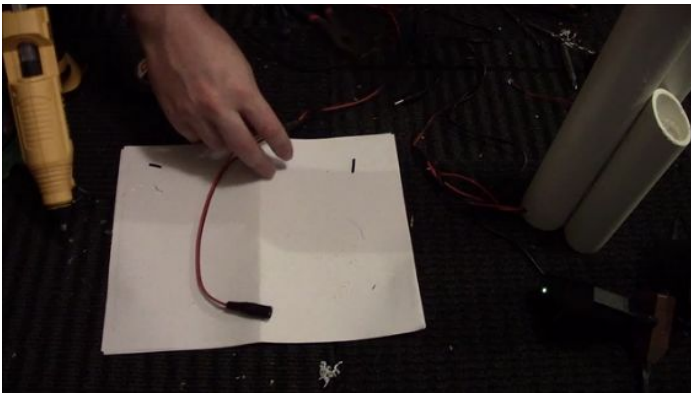
Thread your speaker wire through the smaller pipes and into the big pipe and out through the back hole. Cut them all the similar length depending on your need. These will connect to a pigtail and eventually the power supply. Strip off the insulation for connection to the pigtail.

Lay down your candles and run a bead of hot glue on the big pipe where each smaller pipe will sit. MAKE SURE THE BOTTOM IS LEVEL!!! Run a bead of hot glue in between the smaller pipes where they meet as well.



### Step 6: Pigtail wiring and POWER!

Take your pigtail and the speaker wire ends and strip off the insulation and wire them up together, matching the hot to hot and ground to ground. Usually the hot is red or gold or red/black striped or black / white striped. If you use the clear insulated speaker wire then use gold as the hot and silver as the ground. Attach the pigtail to the wires and use solder and heat shrink or electrical tape(inside only). Plug in your power supply and connect the pigtail to the power supply. All 3 should light up. If one doesn't or they all don't, check your connections at the pigtail.



### Step 7: Candle drips using hot glue.

Next take the hot glue and a few sticks of glue and run a bead around the rim of each candle, this will hide the PVC cuts. Take the hot glue gun and press it into one area just at the rim but on the side and let it flow. Don't touch the pipe with the gun, just hover away from it but close. It will pool then start the drip. The more you put the longer the drip. Do this all over each candle.

You can paint these or heat up the pipe to create the look that the candle edges are starting to fall. Two examples are in the pictures above. The black ones were created by a student in my WCHC class Sandie Schneider Oddities, the melted ones are created by Steven Stockinger of Realm of Fear Home Haunt.

Questions or comments/advice always welcome!!



