

ELECTRONIC CANDLE

Electronic Candle? No this doesn't mean you have to eat an Electric birthday Cake. This is a light that you can actually blow out with your breath. It's fun at electric parties, and it can be used to find out who has the strongest breath. Some new gas meters use a similar idea. The natural gas coming into your house "blows" on a piezo transducer which sends a signal to a small computer. That's how the gas company figures out how much gas you're using for your stove or hot water.

Start by connecting #11 to #13

Connect #13 to #33

Connect #14 to #15

Connect #15 to #27

Connect #16 to #23

Connect #17 to #26

Connect #26 to #38

Connect #12 to #30

Connect #18 to #24

Connect #24 to #29

Connect #25 to #28

Connect #28 to #34.

And the last connection is #34 to #39

All systems ready? Hook up the battery. The LED should light up. If it doesn't, check your connections. Did the red LED light up? Man, you're good! Now blow hard onto the piezo transducer. The LED should go off. To turn it back on, disconnect the battery and reconnect it. Then you can blow it out again.

Here's how the circuit works:

The piezo transducer blows the lights out on this project. When you blow onto the piezo transducer, your LED will switch off.

Current flows from the battery, squeezes through the 1 kilo ohm and 5 kilo ohm resistors, opens up the valve at Transistor "B", and the LED goes on. When you blow on the piezo, the piezo generates a current loop that opens up the valve at transistor "A". The current from the 1kilo ohm resistor now takes the easier path through transistor "A" and back to

the battery, leaving the rest of the circuit in the dark.