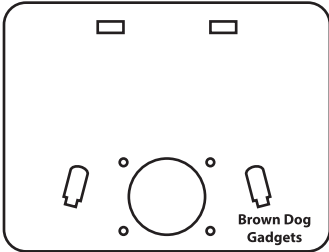


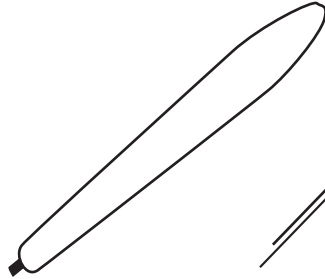
LED Name Tags!

TIME:
5-10 MINUTES

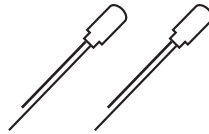
YOU WILL NEED: _____



Blank
Acrylic Name Tag



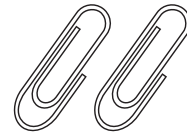
Dry Erase
Marker



2 LEDs



Safety Pin



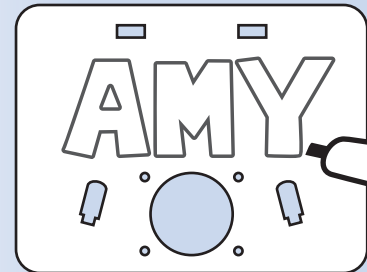
2 Paper Clips



Battery

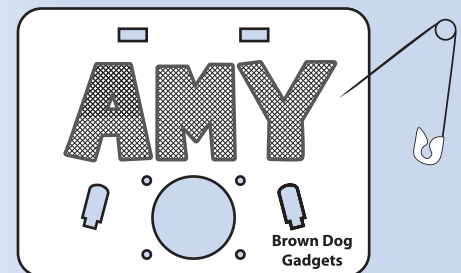
1 **DRAW YOUR NAME or DESIGN**

Position your blank acrylic name tag so that "Brown Dog Gadgets" is in the lower right corner. Do not write on the paper backing. Use a dry erase marker to write your name or design in the blank area. Block or bubble letters work best. Curvy lines can be difficult to etch/scratch.



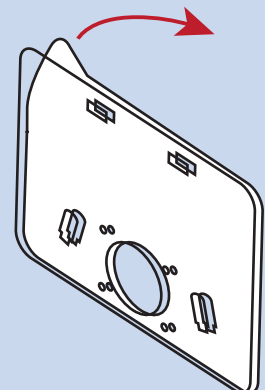
2 **ETCH YOUR NAME or DESIGN**

Use a safety pin to etch/scratch the dry erase pattern. Scratch lightly at first, you do not need to press hard. You can always go back and etch a second time later. Cross hatching is a good way to fill in areas. When finished, erase remaining dry erase marks.



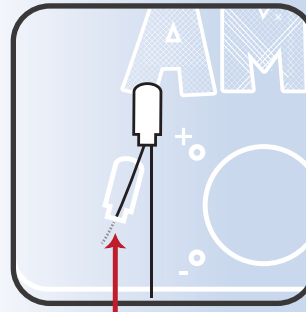
3 **PEEL PAPER BACKING OFF**

of the acrylic name tag starting at an outside corner. The safety pin can help lift the edge of the paper.

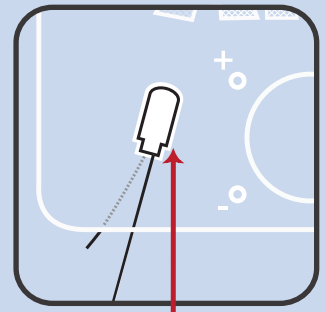


4 **INSERT FIRST LED into LEFT SIDE**

LEDs each have two legs.
The short leg is negative: "-"
The long leg is positive: "+"
Spread the LED legs apart a little.
Insert the short leg through the left LED hole.
Pop the LED into place, flush with the name tag.
The LED legs will be straddling the nametag.
Positive (longer) on front, negative (short) on back.



Insert short leg through the hole

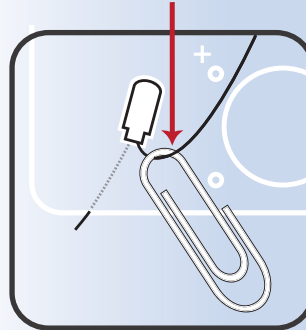


Pop LED into place

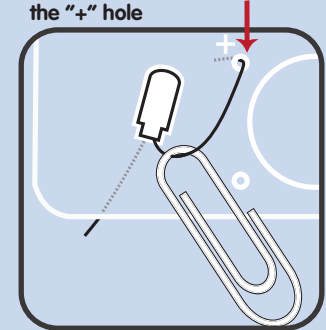
5 **ADD PAPERCLIP**

Bend the long positive leg up towards the nearest hole marked "+". Slip a paperclip over the leg. Bend the last 1/4" of the leg towards the hole and push it through the "+" hole. On the backside, fold remainder of the led leg flush with the backside. It should not touch the battery.

Slip paper clip over the leg

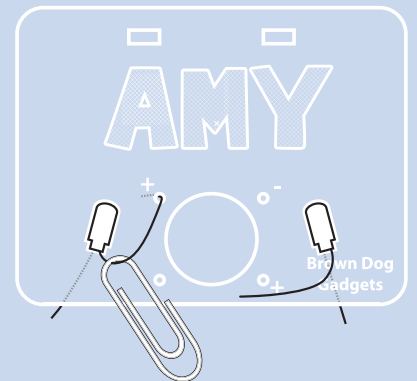


Push the 1/4 of the leg through the "+" hole



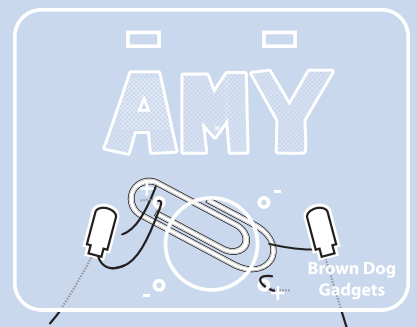
6 **INSERT SECOND LED into RIGHT SIDE**

Spread the LED legs apart a little.
Insert the short leg through the right LED hole.
Pop the LED into place, flush with the name tag.
The LED legs will be straddling the nametag.
Positive (longer) on front, negative (short) on back.



7 **HOOK SAME PAPERCLIP**

Bend the the long positive leg of LED on right side towards the lower right hole marked "+".
Move the paperclip so it is around the hole.
Bend the last 1/4" of the leg towards the hole and push it through the "+" hole.
On the backside, fold remainder of the led leg flush with the back. It should not touch the battery.

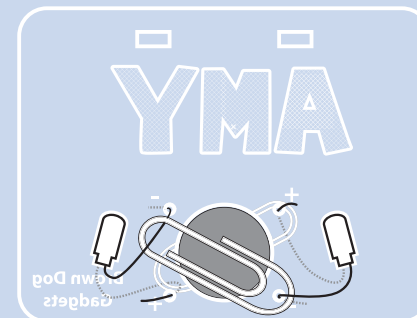
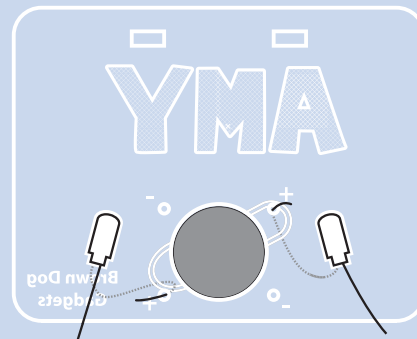


8 **FLIP NAME TAG OVER.**

Insert the battery, + side toward the front.

Do the SAME PAPERCLIP PROCESS with the NEGATIVE LEGS on the BACK of the TAG.

Slip the second paperclip over the left negative leg. Bend the leg up towards the nearest hole marked "-". Bend the last 1/4" of the leg towards the hole and push it through. Slide the paperclip so it is around the lower right "-" hole. Bend the last 1/4" of the leg towards the hole and push it through. Once connected, your name tag should light up! Fold remainder of the led legs flush with the nametag. They should not touch the battery.



? **What if it doesn't light up?**

- Your LED legs may have broken from all the twisting. Get a new one.
- Your battery or an LED may be backwards. Switch them.
- Your paperclip isn't making good contact on one side. Remove the LED legs from the holes and push out the paperclip center a bit to make it more springy.

9 **ADD SAFETY PIN**

so you may pin the name tag to yourself.

Insert pin point from the back side, through a slot at the top. Push it all the way through till the head is touching the back of the nametag. Both the "circle end" and "pointy end" are now on the front of name tag. Next bring the pointy end up through the other hole and around to meet the head



**WELL DONE:
YOU BUILT A LIGHT-UP NAME TAG!**