

# PERSONALIZED LED KEYCHAIN

## EXPERIMENT

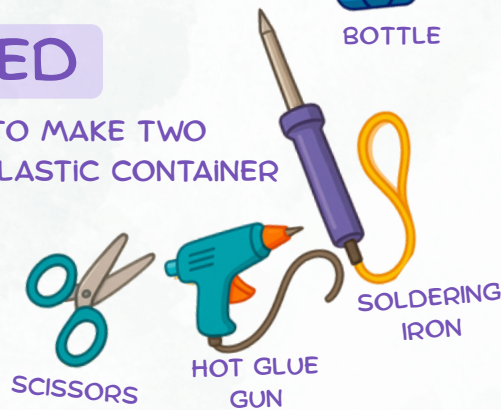
### MATERIALS YOU'LL NEED

- PLASTIC BOTTLE CAP OR A SMALL CONTAINER BIG ENOUGH TO FIT A COIN BATTERY
- A LED DIODE
- A COIN BATTERY
- A KEY CHAIN RING OR CHAIN OR STRING
- DOUBLE-SIDED FOAM TAPE
- DECORATING MATERIALS (RHINESTONES, POMPOMS, GOOGLY EYES, PAPER, DOUBLE-SIDED),
- ADHESIVE PAPER (ANYTHING YOU'D LIKE)



### TOOLS YOU'LL NEED

- SOLDERING IRON OR SOME TOOL TO MAKE TWO HOLES IN YOUR PLASTIC CAP OR PLASTIC CONTAINER
- SCISSORS (OPTIONAL)
- HOT GLUE GUN (OPTIONAL)



### STEPS

#### 1. MAKE THE HOLES IN THE CAP

- 1.ASK AN ADULT TO HELP YOU.
- 2.MAKE ONE HOLE BIG ENOUGH FOR THE KEYCHAIN RING.
- 3.MAKE ANOTHER HOLE BIG ENOUGH FOR THE LED LIGHT TO FIT THROUGH.



#### 2. GET THE TAPE READY

- 1.CUT A SMALL SQUARE OF DOUBLE-SIDED TAPE.
- 2.STICK IT INSIDE THE BOTTLE CAP OR CONTAINER.



### 3. TEST THE LED AND BATTERY

- 1.HOLD THE LED'S LONG LEG TO THE "+" SIDE OF THE BATTERY.
- 2.HOLD THE LED'S SHORT LEG TO THE "-" SIDE OF THE BATTERY.
- 3.IF THE LIGHT DOESN'T TURN ON, FLIP THE BATTERY AROUND AND TRY AGAIN.



### 4. PUT THE LED IN PLACE

- 1.SLIDE THE LED THROUGH ITS HOLE IN THE CAP.
- 2.KEEP THE BATTERY BETWEEN THE LED'S TWO LEGS.
- 3.PRESS ONE SIDE OF THE BATTERY DOWN ONTO THE TAPE SO ONE LEG STAYS TRAPPED BETWEEN THE BATTERY AND TAPE.



### 5. MAKE THE ON/OFF SWITCH

- 1.GENTLY BEND THE OTHER LEG OF THE LED UP A LITTLE.
- 2.WHEN YOU PRESS IT DOWN, THE LIGHT TURNS ON.
- 3.WHEN YOU LET GO, THE LIGHT TURNS OFF.

### 6. ADD THE KEYCHAIN RING

- 1.THREAD THE KEYCHAIN RING THROUGH THE OTHER HOLE.
- 2.CLOSE IT SO IT'S SECURE.





## 7. DECORATE YOUR KEYCHAIN

1. USE STICKERS, RHINESTONES, GOOGLY EYES—ANYTHING YOU LIKE!
2. IF YOU USE HOT GLUE, ASK AN ADULT TO HELP.

## FINAL RESULT



## DECORATIONS

