



**Build time**

1 to 1 ½ hours

# Burglar Alarm

**Stop, thief! Nobody will go unnoticed with this clever machine. An alarm sounds if anybody dares to sneak into your room!**



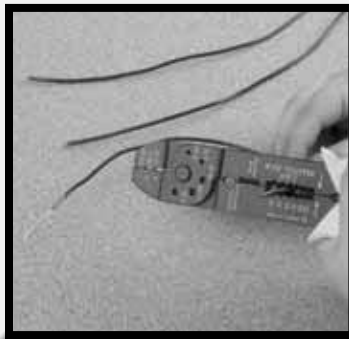
## **MATERIALS**

- aluminum foil
- electric buzzer, from electronics or hobby store
- 1 battery
- 2-inch (5-cm) strips of a towel
- 3 pieces of coated copper wire, 12 inches (30 cm) long
- 2 square pieces of cardboard from a cereal box, 6 inches by 6 inches (15 cm by 15 cm)



**1**

Wrap foil around one side of each piece of cardboard. Tape the foil to the back of the cardboard.



**2**

Remove about 1 inch (2.5 cm) of coating from each end of each copper wire with the wire stripping tool.

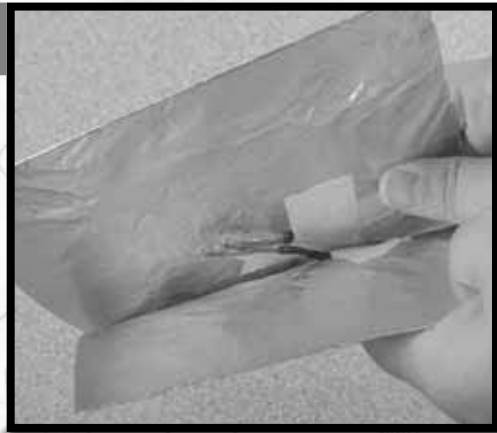


3

Tape one wire to the center of the foil side of one cardboard piece. Don't tape over the copper end of the wire. It needs to remain exposed.

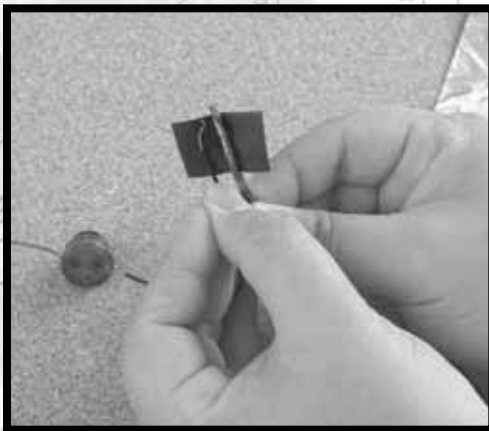
4

Repeat Step 3 with the other cardboard piece. Place the second wire so the exposed ends will touch when the cardboard pieces are stacked together.



5

Twist and tape the loose end of one wire together with one of the buzzer connections.



**Keep Building!**

6

Tape the loose end of the second wire to the top of the battery.



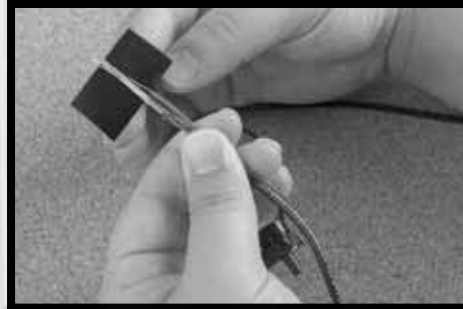
7

Tape one end of the third wire to the bottom of the battery.



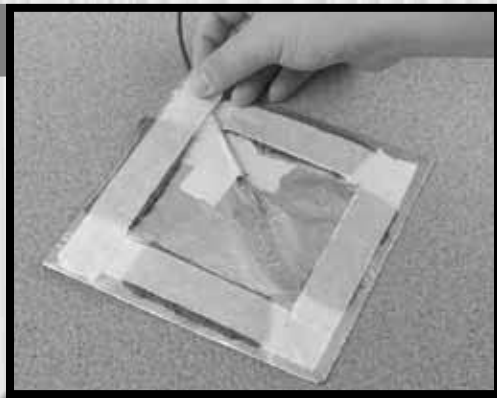
8

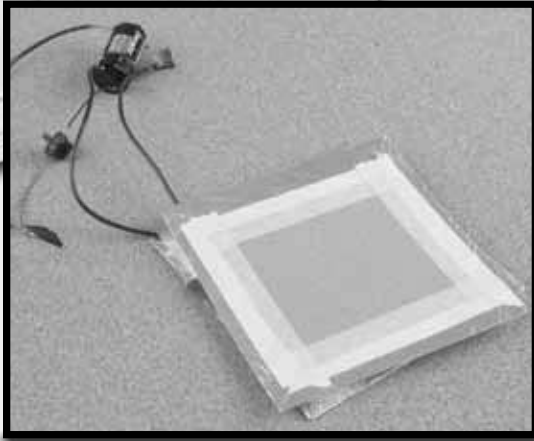
Twist and tape the other end of the third wire to the second buzzer connection.



9

Tape the towel strips around the outside edge of one cardboard piece.

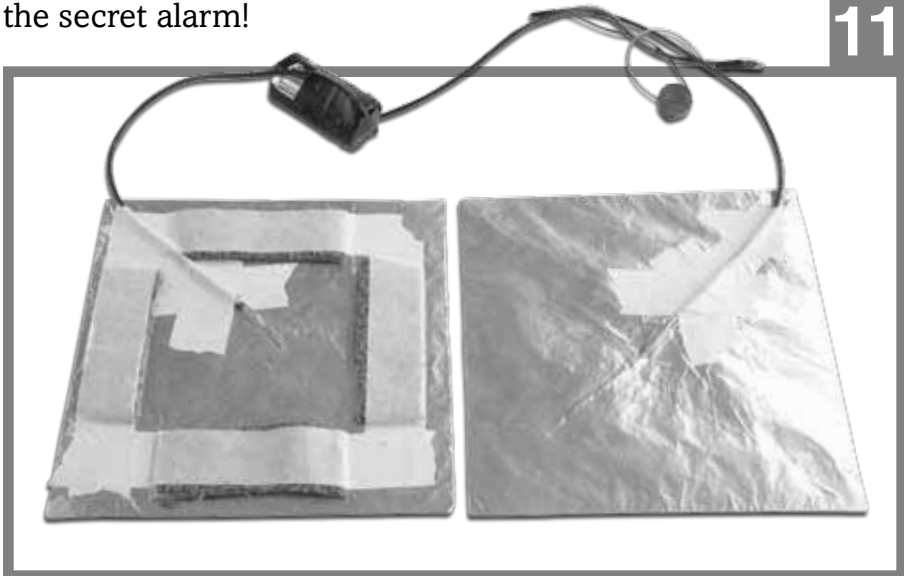




10

Place the foil sides of the cardboard together. When you press on the center, it should complete the circuit and turn on the buzzer.

Place the cardboard pieces under a rug in front of your door. Then just wait for an intruder to step on the secret alarm!



11



**Use a battery that matches the voltage that the buzzer requires. A weak battery won't turn on the alarm. A battery that is too strong might burn it out.**