level

Sunny
Light flower
Discover the Joy of a
mechanical Friend

BOTSHOP
EST
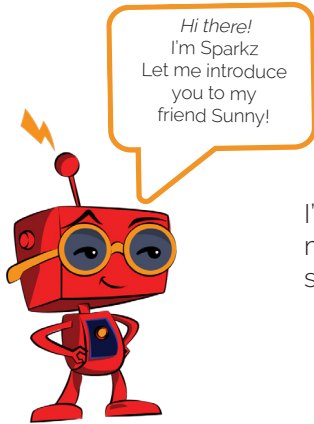2014
LET THE FUN BEGIN

AA
AA
NOT
included

Sunny

Hi there!
I'm Sparkz
Let me introduce
you to my
friend Sunny!
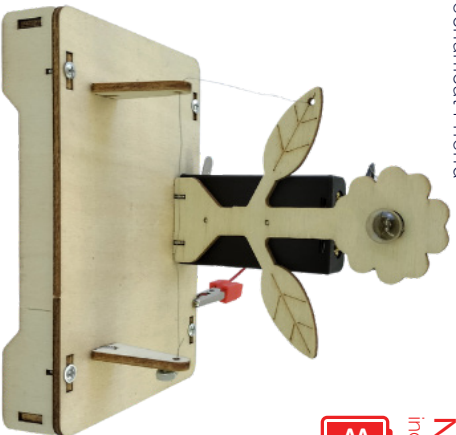
Hey there, little buddy!

I'm Sunny, the
light flower!

I'm a light flower and
I'm here to tell you about
me, so get ready for
some magical fun!

Hello there, my little friend! I'm Sunny, the DIY Electric Light Flower. I'm here to illuminate your world with knowledge and fun!

In this amazing project, we'll learn all about light and darkness. You see, light bulbs can shine brightly or become dimmer depending on special wires called resistance wires. Isn't that fascinating?

So get ready, my little gardener, to embark on this illuminating adventure with Sunny, your DIY Electric Light Flower. Let's learn, create, and brighten up our world in the most delightful way!

How to get prepare:

- Before you start, you need to find a safe and clean place to work.
- If you have any questions or need help, you can ask your parents, a grownup or teacher and they will assist you.

Have fun!

Some things to keep in mind:

- *Be careful:* When you open the package with the parts, be careful not to drop or lose any small parts. They are very important for your model. If you lose a piece, your model might not work!

- *Read and follow:* If you want to make your model easily, you need to read the instructions well and follow the steps.

Let's see what we need and how to prepare:

Remember to get 2 x AA batteries for Sunny!

What is in the BOX
- 5 different pieces of board
- 1 battery box
- 1 alligator clip
- 1 Light bulb
- 1 light bulb holder
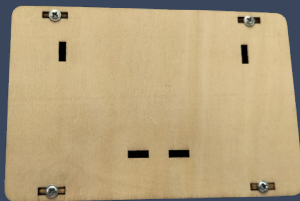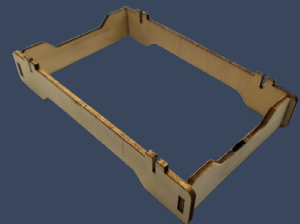- 8 7mm screws
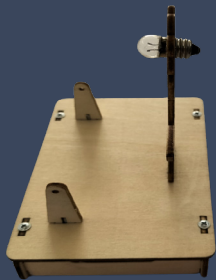- 2 4mm screws
- 1 nut

X 2 ① 1

X 2 ② 1

X 1 ③

4 1 X

5 1 X

① ② ③ ④

Begin by attaching Boards 1 and 2 together. Then, use 7mm screws to secure Board 3 on top of Boards 1 and 2. Finish by attaching the two 4 boards on Board 3 with more 7mm screws.
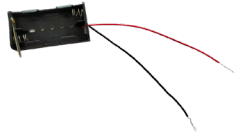
⑤

First install board 5 on the board 3 with a 7mm screw, and then pass the bulb through the round hole of board 5 and screw it together with the lamp holder.
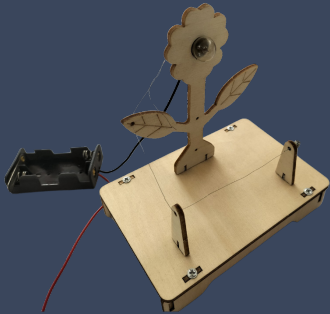
You'll work with the alligator clip here. Remove the rubber sleeve from the clip. Thread the red wire through the rubber sleeve and the small hole in the metal part of the clip. Put the rubber sleeve back on to secure the wire. Connect the black wire from the battery case to the copper piece on the lamp holder.
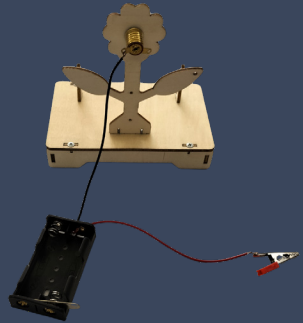
Your resistance wire will look like a spiral. Tie one end of the resistance wire to a nut. Guide the resistance wire through the round holes in Board 4 and 5. Finally, connect the other end of the resistance wire to another copper piece on the lamp holder.
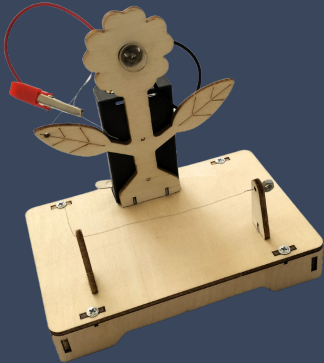
Attach the battery box to Board 5 using 4mm screws. Insert the batteries into the battery box. Close the knife gate (the switch on the battery box) to complete your light and dark lamp!
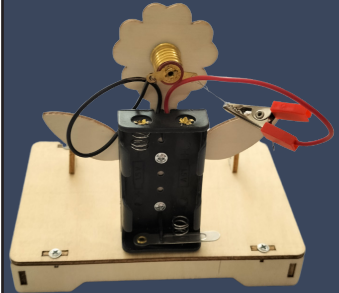
Clip one end of your alligator clip onto the resistance wire of the light bulb. Now, watch as your light bulb shines! The closer the alligator clip is to the bulb, the brighter it gets. Move it farther away, and the bulb will dim.

Now you have
your very own Light flower!

Congratulations, adventurer! There you go. Have fun with your Optic light, Sparkles! Let's watch me Glow different colours!

Is sunny not working?
Problem: You've inserted the battery, closed the knife switch, and clipped the alligator clip, but the lamp isn't working!
• Check if your batteries are low; if so, replace them with new ones.
• Make sure the alligator clip is securely clamped onto the resistance wire.
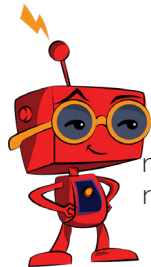
S Science

T Technology

E Engineering

A Arts

M Mathematics

STEAM kits - help kids learn many skills they'll need in a fun and practical way.

Here's how they help:

1. *Hands-On Learning:*
   Kids do experiments and projects, making learning fun.

2. *Problem-solving:*
   They learn to solve problems by thinking and trying things out.

3. *Creative Thinking:*
   Arts and design are part of *STEAM*, so kids get to be creative.

4. *Confidence:*
   Completing projects makes kids feel like they accomplished something

5. *Preparation:*
   STEAM skills are important for the future, so kids are ready for jobs.

Collect them all
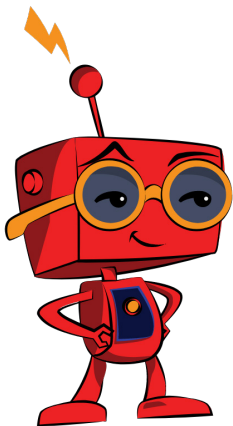
With a bit of imagination you can create your own unique friends. Please share your creations with our community

Please ask your mom / dad / teacher or a grown up to help you to upload your creations to our community page on the website. We would love to see your creations and also share and inspire the little creator in you.

Moonbeam
light lamp

Luna
intelligent light