



Laneview STEM Day

Presented by Students Advancing STEM and the Laneview PTA

Let's Make A Jittery Bug

K/1

Let's Make a Jitterybug (K-1)

- Welcome and Introductions
 - SAS Ambassadors (high school students) are representatives of our organization
- Students Advancing STEM (SAS)
 - High school and middle school students (SAS Ambassadors) interested in science, technology, engineering, mathematics
 - Putting together and presenting programs for elementary school students
 - SAS clubs at both Morrill and Sierramont Middle Schools and Piedmont Hills High School



Today's activity

Everyone will make a ladybug move by using solar energy!

- What is solar energy:
 - Light, heat, and other forms of energy given off by the sun.
 - The energy is collected in a plate called a solar panel.
 - Here is a video that tells you about solar energy:

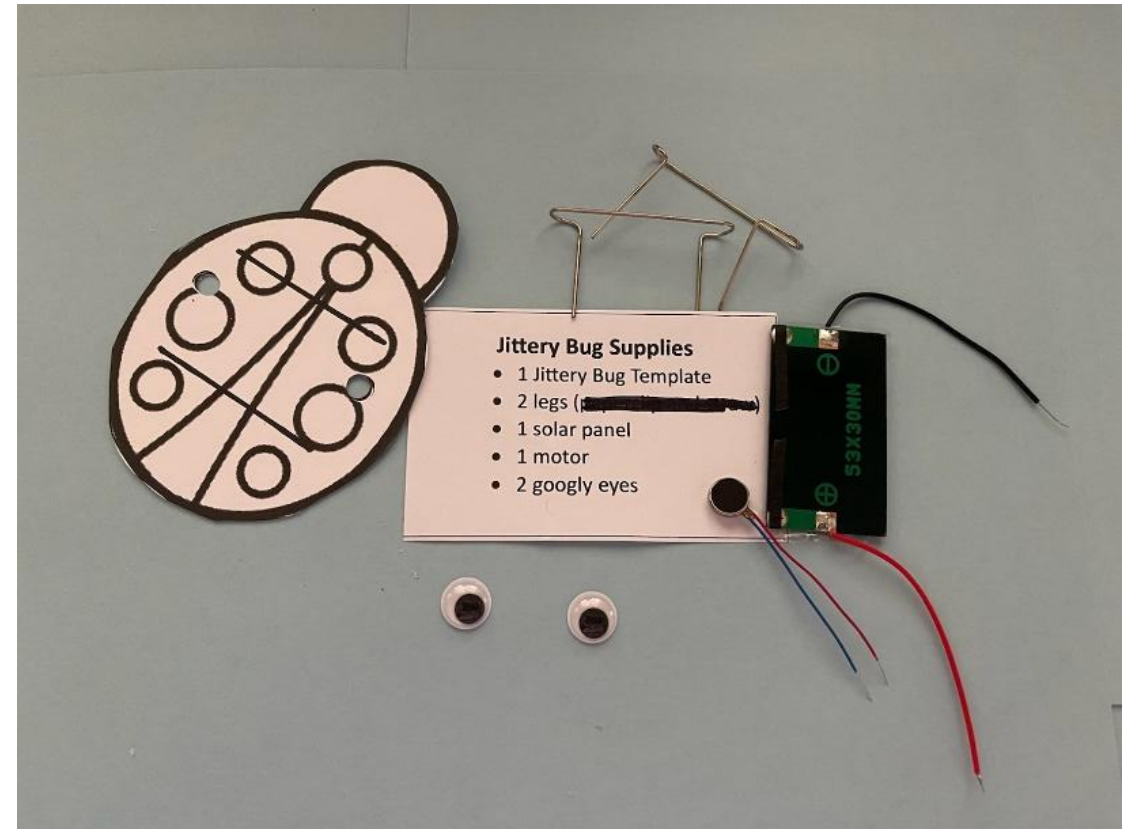
<https://www.youtube.com/watch?v=200JaROLuUY>



Parts you need for your project

- One (1) jitterybug template
- Two (2) legs
- Two (2) googly eyes
- One (1) mini solar panel
- One (1) mini circle vibrating motor
- Electrical tape
- Tape, black and red crayons and glue will be at the table.

If you have any questions, ask the mentors!



Step One

Cut and Color your ladybug

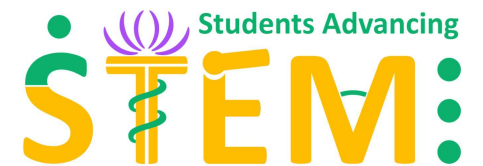
- 1) Cut the outline of the ladybug.
- 2) Color the ladybug.
- 3) Write your name on the back side of the ladybug.



Step Two

Add googly eyes

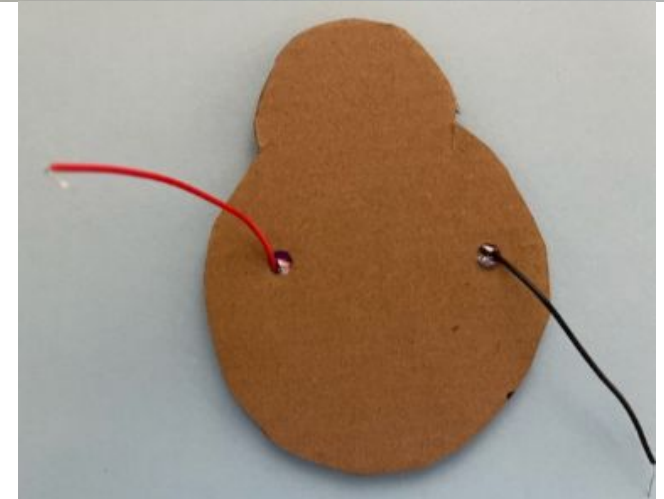
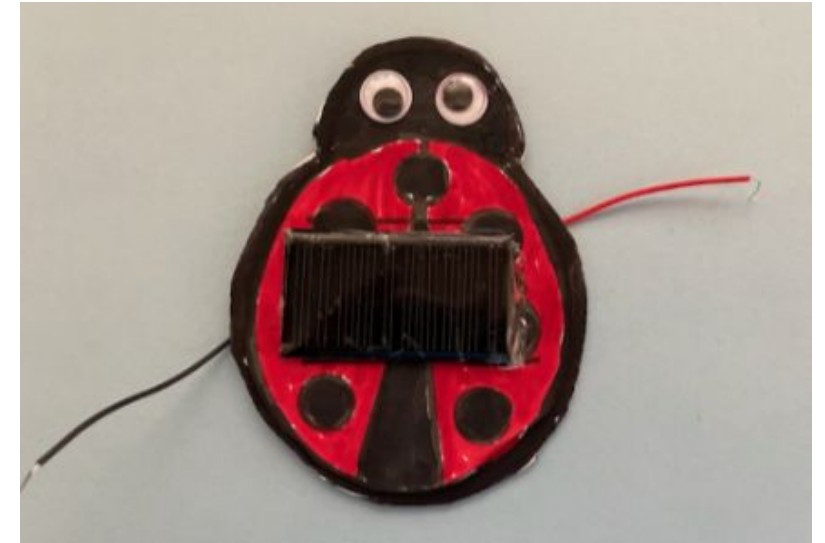
- 1) Glue in place on the ladybug
- 2) Let them dry
- 3) Make sure they don't fall off when you turn them over



Step Three

Place solar panel onto ladybug

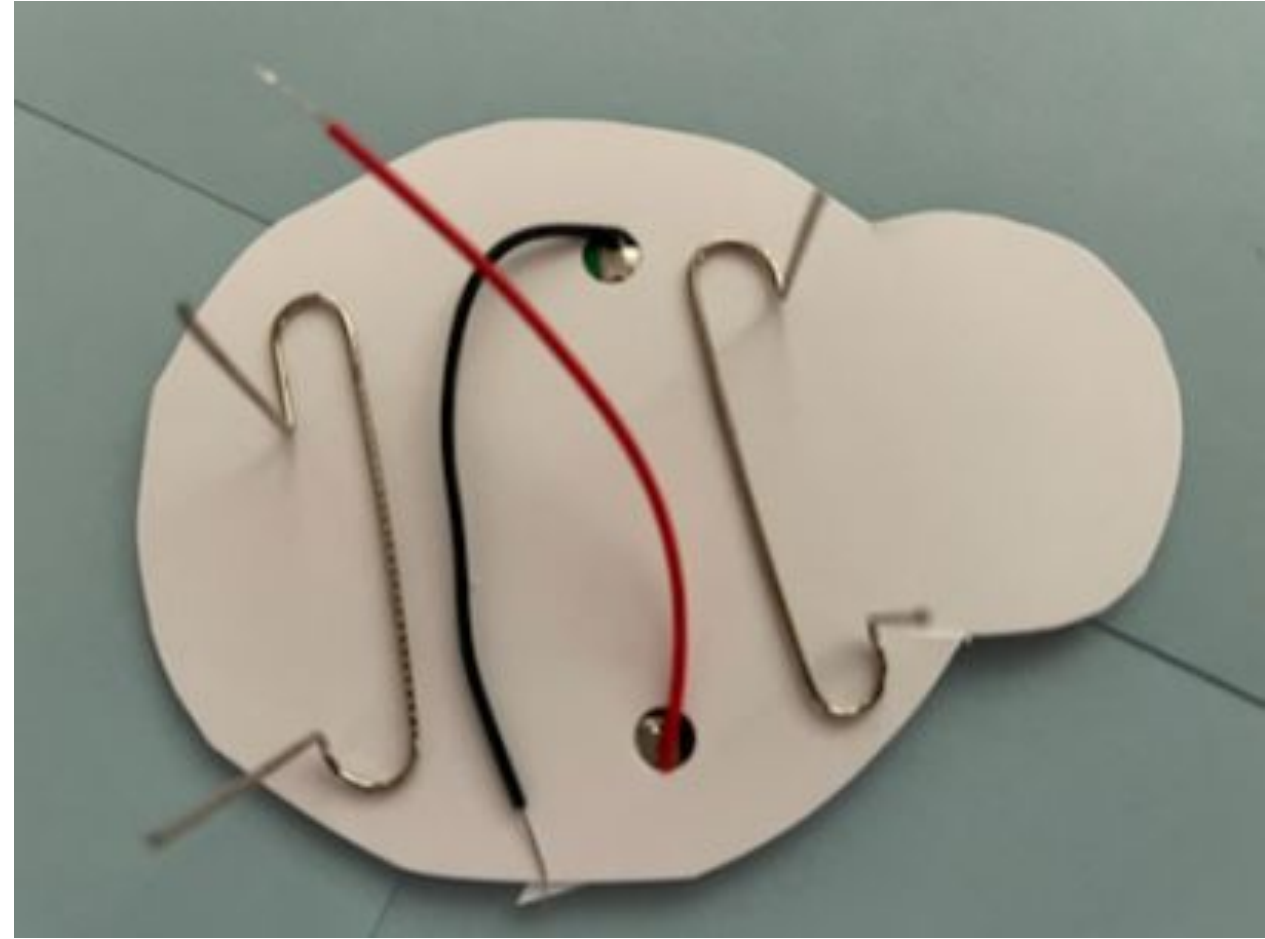
- 1) Place glue on the back of the solar panel (the side where the wires are coming from)
 - 2) place each wire through each hole
- *do not get glue on the front side of the solar panel



Step Four

Tap on legs

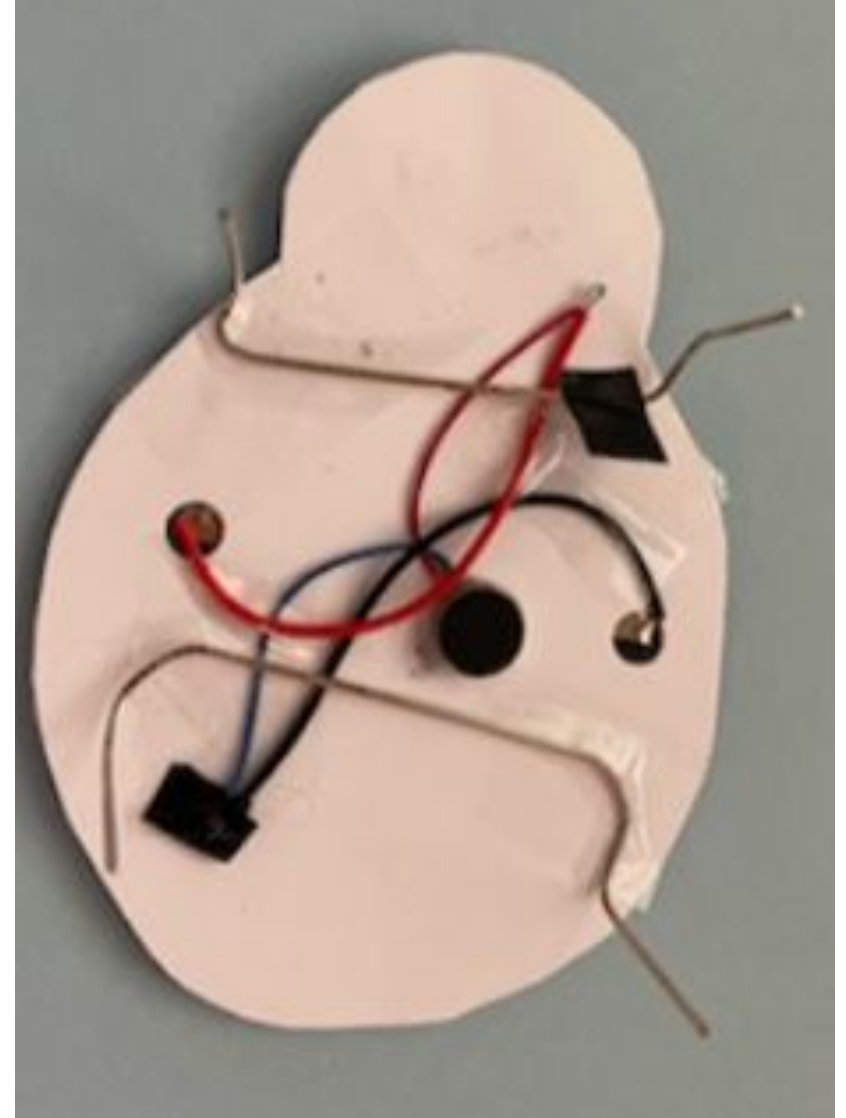
- 1) take two long strands of tape
- 2) tape the bent part of the legs
- 3) one leg should be near the head
- 4) one leg should be near the back



Step Five

Connecting the motor

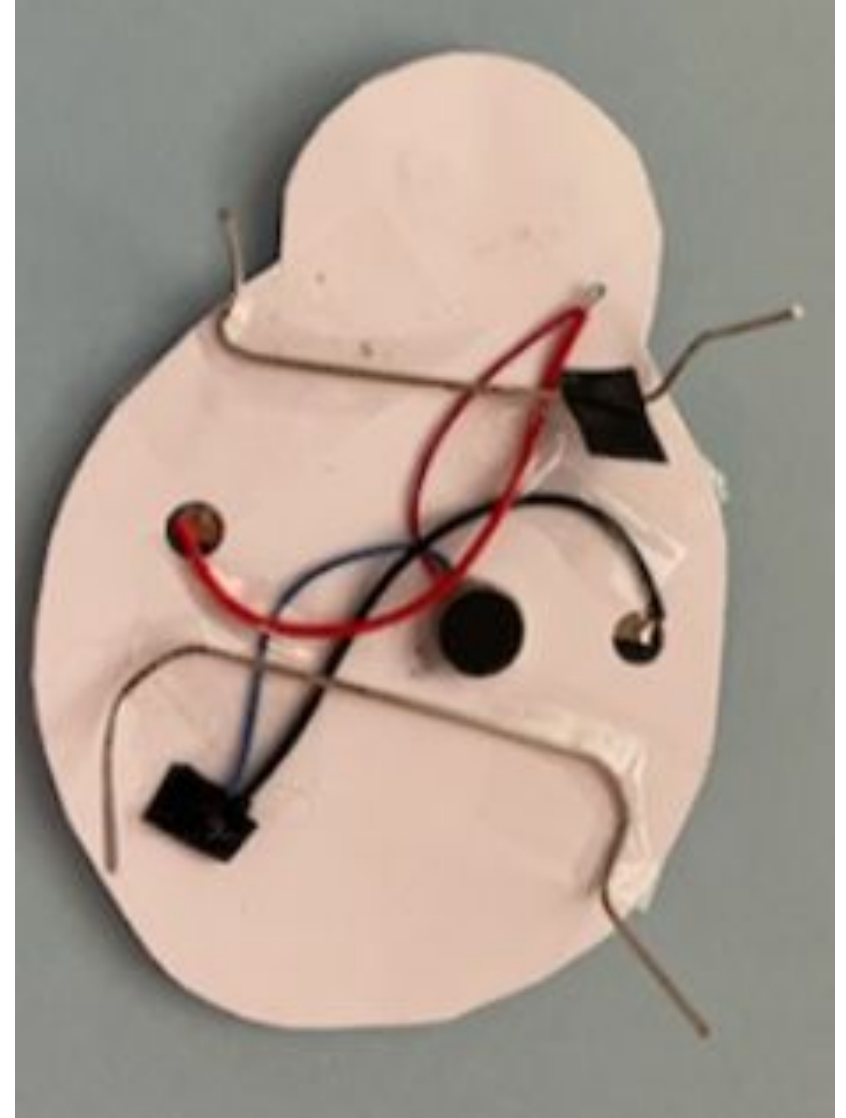
- 1) glue the white side of the motor to the bottom of the ladybug
- 2) twist the black **wires** together and twist the other two **wires** together (**please ask mentors for help!**)
- 3) use electrical tape to secure the wire



Step Six

Tape down the wires

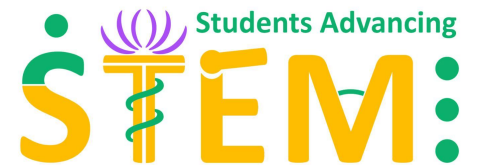
- 1) take some tape and tape the hanging wires onto the back of the ladybug



Step Seven

Operating the ladybug

- 1) turn the ladybug to the front
- 2) take the film cover (it is plastic) off of the solar panel
- 3) place the jittery bug in direct sunlight



Done!

Now have fun with your ladybug!

Remember to throw away trash, and give mentors any extra materials.

