UNIT ACTIVITY

LOUDNESS SENSOR

SUGGESTED TIME
30 – 45 MINUTES

OBJECTIVES

By completing this activity students will:

+ gain more fluency with computational concepts (events, parallelism, data) and practices (experimenting and iterating, testing and debugging, reusing and remixing, abstracting and modularizing) by creating a project exploring loudness sensing

ACTIVITY DESCRIPTION

- ❑ Use the Advanced Concepts, Loudness Sensing examples to show and help students get familiar with blocks that control loudness sensing. Optionally, have the Loudness Sensing handout available to guide students.
- ❑ Give students time to explore the code of example programs to create a project that experiments with loudness sensing.
- ❑ Encourage students to share their explorations with others. We suggest hosting design demo presentations. Optionally, have students add their projects to the Advanced Concepts studio or a class studio.
- ❑ Ask students to think back on the design process by responding to the reflection prompts on paper or in a group discussion.

RESOURCES

- ❑ Loudness Sensor handout
- ❑ Loudness Sensor example starter project http://scratch.mit.edu/projects/10007296/

REFLECTION PROMPTS

+ How did you build in loudness sensing to your project?
+ What was your strategy to for learning how to use loudness sensing?

REVIEWING STUDENT WORK

+ Do the sprites in the projects interact with sound?

NOTES

+ Loudness Sensing projects require a computer with a microphone.
+ Remind students that the backpack tool can be used to borrow and remix code from example projects.

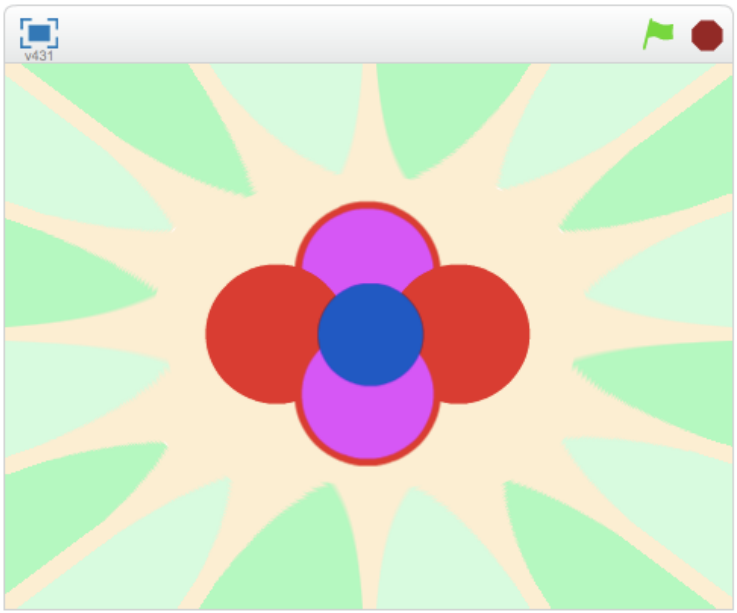
NOTES TO SELF

- ❑ _____
- ❑ _____
- ❑ _____
- ❑ _____

LOUDNESS SENSOR

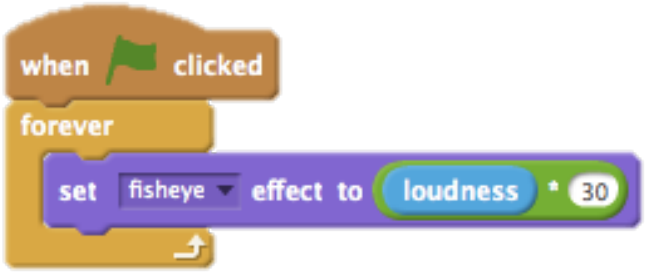
HOW CAN YOU USE LOUDNESS SENSING TO INFLUENCE YOUR SCRATCH PROJECTS?

Did you know that you can make your Scratch projects interactive through a microphone? Explore this advanced Scratch concept by creating a project that incorporates the loudness sensing feature.



START HERE

- ❑ Create sprites using the paint editor and add a background.
- ❑ Add looks, motion, and operator blocks.
- ❑ Experiment with the multiply values and test how it affects your project.



FEELING STUCK?

THAT'S OK! TRY THESE THINGS...

- ❑ Make sure your microphone is connected! Test it out using the loudness block. Try out other in the Looks and Sounds palette.
- ❑ Experiment with new motion and effects blocks.
- ❑ Try brainstorming with a neighbor!

FINISHED?

- + Add your project to the class Scratch Studio.
- + Challenge yourself add another sprite!
- + Help a neighbor!

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