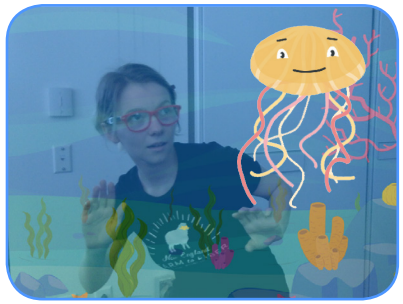
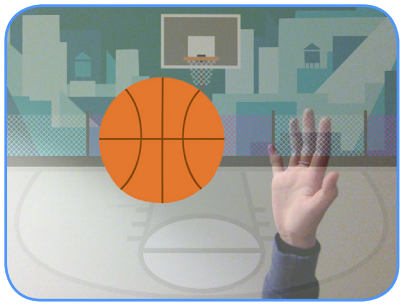
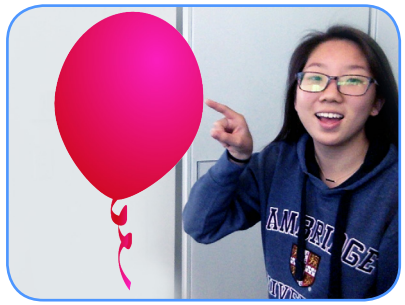
EDUCATOR GUIDE

Video Sensing

With this guide, you can plan and lead a one-hour workshop using Scratch. Participants will gain experience with coding as they create interactive projects using Video Sensing.

Workshop Overview

Here's a suggested agenda for a one-hour workshop:

IMAGINE
10 minutes

First, gather as a group to introduce the theme and spark ideas.

CREATE
40 minutes

Next, help participants as they make interactive projects, working at their own pace.

SHARE
10 minutes

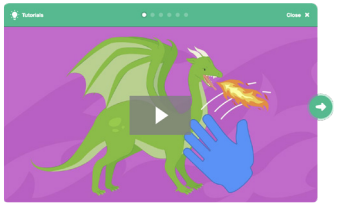
At the end of the session, gather together to share and reflect.

Get Ready for the Workshop

Use this checklist to prepare for the workshop.

☐ Preview the Tutorial

The *Video Sensing* tutorial shows participants how to create their own projects. Preview the tutorial before your workshop and try the first few steps: scratch.mit.edu/tutorials

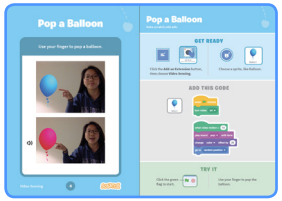


☐ Make sure your computers have built-in cameras

Video Sensing uses your computer's built-in camera. Make sure that participants are using computers with built-in cameras.

☐ Print the Activity Cards

Print a few sets of *Video Sensing* cards to have available for participants during the workshop.
scratch.mit.edu/ideas



☐ Make sure participants have Scratch accounts

Participants can sign up for their own Scratch accounts at scratch.mit.edu, or you can set up student accounts if you have a Teacher Account. To request a Teacher Account, go to: scratch.mit.edu/educators

☐ Set up a computer with projector or large monitor

You can use a projector to show examples and demonstrate how to get started.

Imagine

IMAGINE

Begin by gathering the participants to introduce the theme and spark ideas for projects.

Warm-up Activity: Invisible Energy Ball

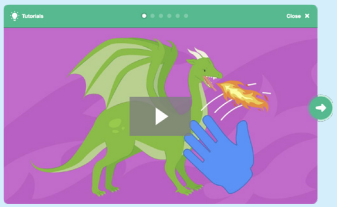
Gather the group in a circle. Together you must pass an invisible energy ball around the circle, acting out the action of passing or throwing the ball. The challenge is, it is always changing shape, size, texture and even temperature.

Model this activity by passing the ball to the first participant. Say your name, then describe the ball. "I'm Alex and I'm passing you a huge energy ball that is slippery like a fish!"

The next person then acts out how they would catch that huge, slippery energy ball, introduces themself and describes the energy ball they're passing to the next person. Encourage participants to transform the ball as much as possible with each turn.

Provide Ideas and Inspiration

To spark ideas, watch the Video Sensing tutorial video. The video shows a variety of projects to spark ideas and inspiration.



View the scratch.mit.edu/ideas

Demonstrate the First Steps

IMAGINE

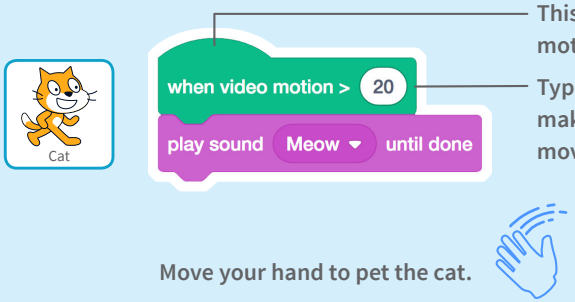
Demonstrate the first few steps of the tutorial so participants can see how to get started.

Start a new project in Scratch, then add the Video Sensing blocks.

Click the **Add an Extension** button (on the bottom of the screen).

Choose **Video Sensing** to add the video blocks.

Pet the cat:



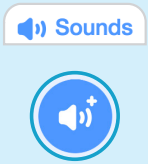
This block senses motion on a sprite.

Type a larger number to make it less sensitive to movement.

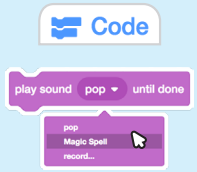
Move your hand to pet the cat.

Follow these steps to choose different sprites and sounds:

Choose a sprite.



Choose a sound.



Select your sound.

Create

CREATE

Support participants as they create interactive Scratch projects.

Start with Prompts

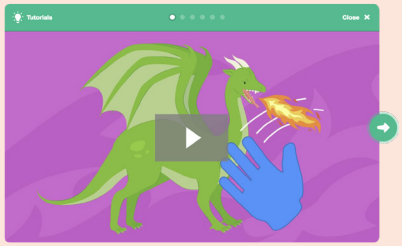
Ask participants questions to get started

Which character or object do you want to interact with?

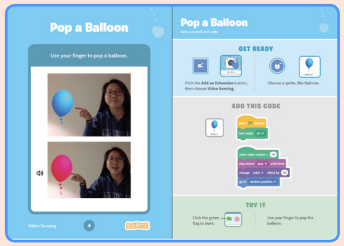
What do you want it to do when you interact with it?

Provide Resources

Offer options for getting started



Some participants may want to follow the online tutorial: scratch.mit.edu/tutorials



Others may want to explore using the activity cards: scratch.mit.edu/ideas

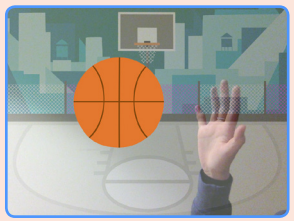
Suggest Ideas for Starting

- Add the Video Sensing blocks using the *Add an Extension* button.
- Choose a sprite to interact with.
- Decide how you want it to react.

CREATE

More Things to Try

- Try adding a second character or object to interact with.
- If you're not sure what to do, pick a card and try something new.
- You can create a game, an interactive story, or a virtual pet.



Support collaboration

- When someone gets stuck, connect them to another participant who can help.
- See a cool idea? Ask the creator to share with others.

Encourage experimenting

The Video Sensing activity cards can be done in any order, with a range of different character and object sprites.

Encourage students to try new things:

What are different ways your project can react?

Can you create a project that two (or more) people can play?

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SHARE

Share

Have participants share their project with their neighbors.

Ask questions they can discuss:

What do you like best about the project you made?

What was the hardest part?

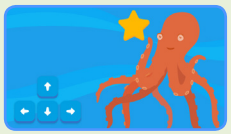
If you had more time, what would you add or change?

What's Next?

Participants can use the ideas and concepts from this workshop to create a wide variety of projects. Encourage them to continue developing their projects into games, stories, or interactive art using the resources listed below.

Create a Story

Choose characters, add conversation, and bring your story to life.



Chase Game

Make a game where you chase a character to score points.

Animate a Character

Bring characters to life with animation.

Find these projects in the Tutorials library: **scratch.mit.edu/ideas**

Created by the Scratch Team