

Conductor

Make a conductor's baton and program your laptop to play a tune when its camera detects movement.



- 1 Setup
- 2 Warm up
- 3 Create
- 4 Share
- 5 Reflect
- 6 Plan

What you need

- Scissors
- Tape
- Card
- Stickers and pens
- Laptop and mouse



ourkidscode.ie/conductor



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



Rialtas na hÉireann
Government of Ireland



Taighde Éireann
Research Ireland

Be positive

1. How can we create a positive atmosphere every time we meet?
2. What rules should we have about behaviour in our club?
3. Write some words or draw some pictures in the bubbles.



1 Setup

Discuss what jobs you will do in your team. Try a new job this time?

An **organiser** sees that everyone is involved, writes down an agreed plan of what to do in what order, checks that it's working, changes it as needed and makes sure that you all start and stop at the right time.

The task for a **designer** is to draw & note down the team's agreement on what the challenge is and on how you will make it look and work.

A **coder** operates the computer to place blocks together to make the sequence of steps that make it work.

A **maker** cuts materials, fixes together and decorates.

A **reviewer** checks that all is good by asking:

1. Does it look right?
2. Is it working?
3. Are there steps missing?

Invent, compose and conduct

1. Each family member invents an instrument (and chooses a shape), making a sound with their voice or what they can find!
2. Families compose music by playing their instruments in order, and writing down the steps using the shapes and pauses:
3. Choose a conductor to direct the music by pointing at each person.
4. They can be an instrument too!
5. Having rehearsed their music, each family swap compositions with another family and challenge each other to perform it.

What's the idea?

Composing the music helps you understand how coding works as a sequence of instructions. When you attempt to write computer programs, this can help you fix errors.

By rehearsing the compositions and then challenging others to perform, everyone is on their feet, active and losing inhibitions before settling down to more serious collaborative work.

2 Warm up

Instruments - players:



drum - Mum



bell - ???



banana - ???



monkey - ???



- cherry

Music: (Devin conducting)



pause



pause





3 Create - make

Maker job

Using card and tape make a baton that the band leader can use to signal to each member of the band when it's time to play.

Make two batons if you want two band members to play at one time!

Reviewer job

Test the finished baton by waving it at the screen to trigger sounds from each of the sprite instruments made by the coder

Coder job

Connect to
the Scratch website:

scratch.mit.edu

1. Click '**Start Creating**' and close the tutorial at the bottom.
2. '**Add Extension**' at the bottom left and choose '**Video Sensing**'.
3. You should now see a new icon at the bottom which lets you use video sensing commands.
4. Notice how your cat starts making noise whenever there is movement in the video.
5. Move the sprite out of the middle of the screen and make it a bit smaller so that it's harder to activate by accident
6. Now make the rest of the band:
Create four or five new sprites using the '**new sprite**' button near the bottom right of the screen and give each of them the blocks to play their sounds when there is motion.

3 Create - code

You can give each band member an instrument to play by recording your own sounds for each sprite, or choose ready-made from the '**Sounds**' tab.

Put your band on a proper stage by selecting a suitable background from the Scratch library.

Reviewer job

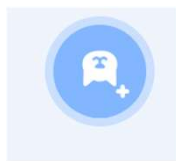
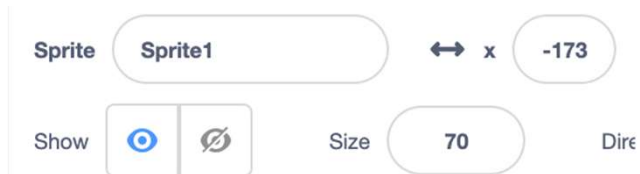
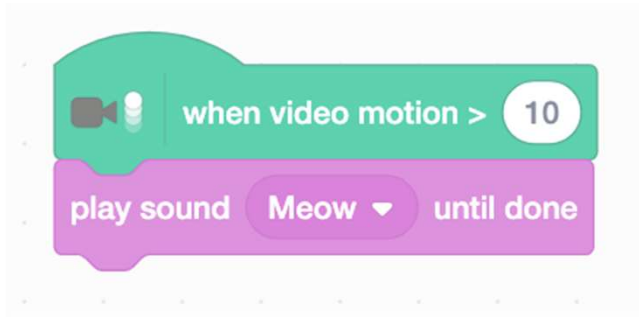
Test the program

Place the laptop so that there there won't be anything moving through the background.

Make the stage full-screen so you can see it clearly and then stand back until you look small.

Using the baton wave over each band member sprite to check that each plays its instrument.

Challenge another family to conduct your band in a song.



4 Share

Play with what you have made.

Show it off to everyone else!

Look at everyone else's work and ask how it went for them.

5 Reflect

Please **fill in the reaction form** once for each person

Discuss with everyone in the room what you felt and what could you do in future.

Did you have fun? Did you help someone?

What was your favourite bit? Least favourite?

Learn anything? Feel more confident?

Think you and your family might like to do more?

6 Plan

At the end of every MeetUp, families plan the next one by choosing a project to work on and deciding who will do which tasks to organise it. Make some notes here:

You will find these useful documents on our website:

- Start a club guide
- Running a MeetUp
- MeetUp checklist
- Being a team player
- Forming a family team
- Choosing a project



ourkidscode.ie/run-a-club



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