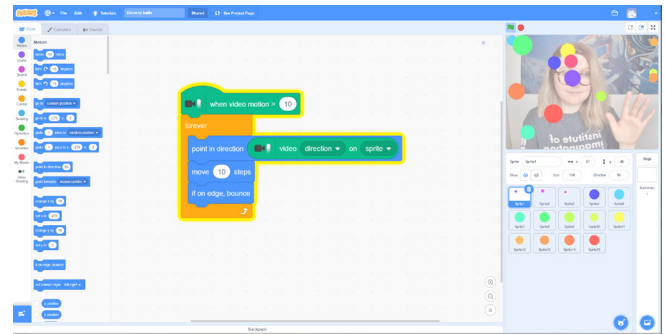


Coding Our Emotions

Invent and design video sensing games using SCRATCH to allow us to refocus and strengthen our emotions. We will explore our emotions to help us understand how we can be playful by using our mind and body with coding games.

iOi Challenge: We challenge you to design and build a game with Scratch Video Sensing to refocus your emotions.



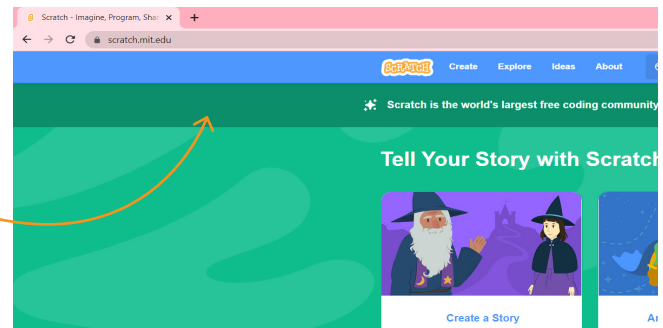
Getting started

YOU WILL NEED:

- Laptop or tablet with a camera
- [iOi Coding Demo Resource](#)

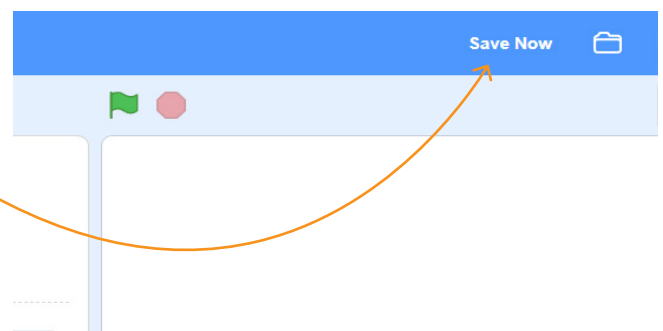
SCRATCH is a block based visual programming language and a website used for programming.

To start using SCRATCH, you will need to create an account. Go to scratch.mit.edu, click Join SCRATCH and follow the instructions. Make sure to verify your email!



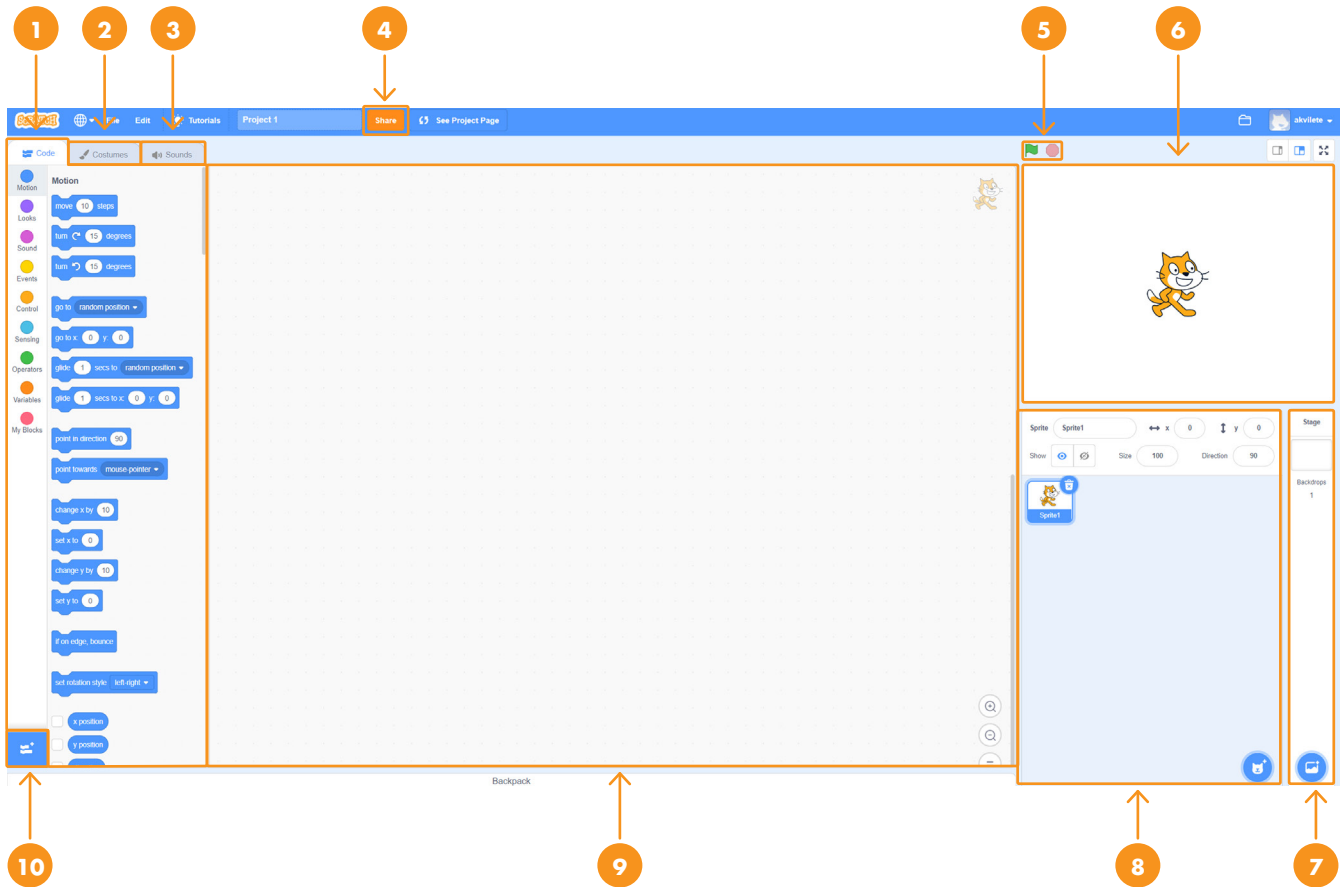
If you create an account, it automatically saves your work and you can share it.

As you work on your project, SCRATCH will save your progress automatically. If your internet connection is not stable, clicking the 'Save' button regularly will make sure you will not lose your creation!



Discover more ideas here





1. Code: different code categories and code blocks
2. Costumes: Sprite costumes, create new costumes or edit existing ones
3. Sounds: find, create or edit existing sounds
4. Share your projects with others
5. Green flag: run the code, red octagon: stop the code
6. See the code and the Sprite(s) in action
7. Add backdrops
8. Add a Sprite (Sprites are main characters or actors in your project. They are programmed to do something in SCRATCH)
9. Build your code in this section
10. Add an extension

Discover more ideas here

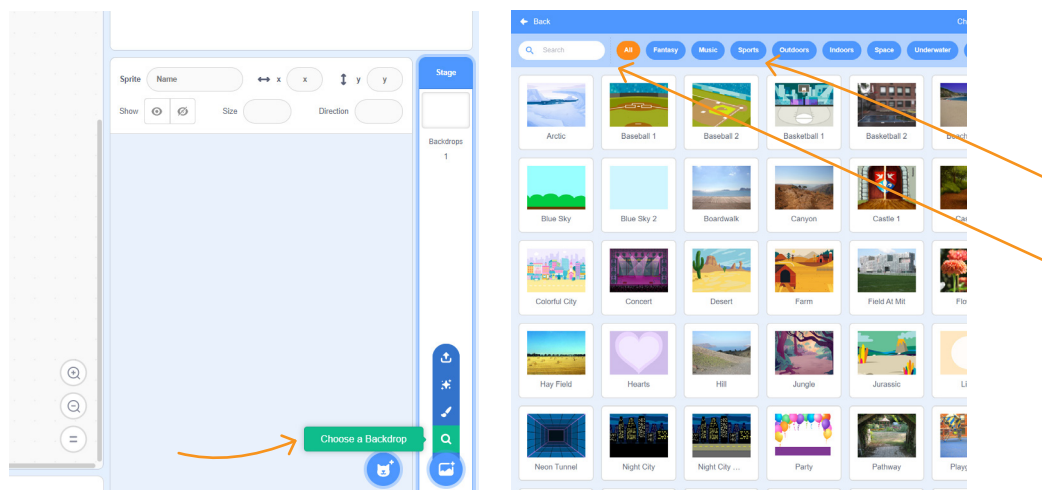




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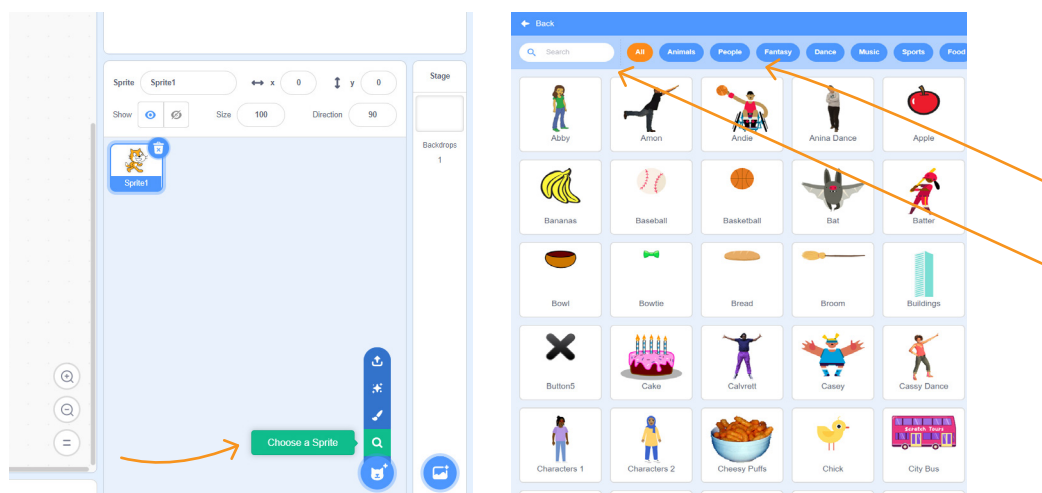
Searching and adding backdrops

Click on 'Choose a Backdrop' to search the library. Use the 'Search' bar or the categories.



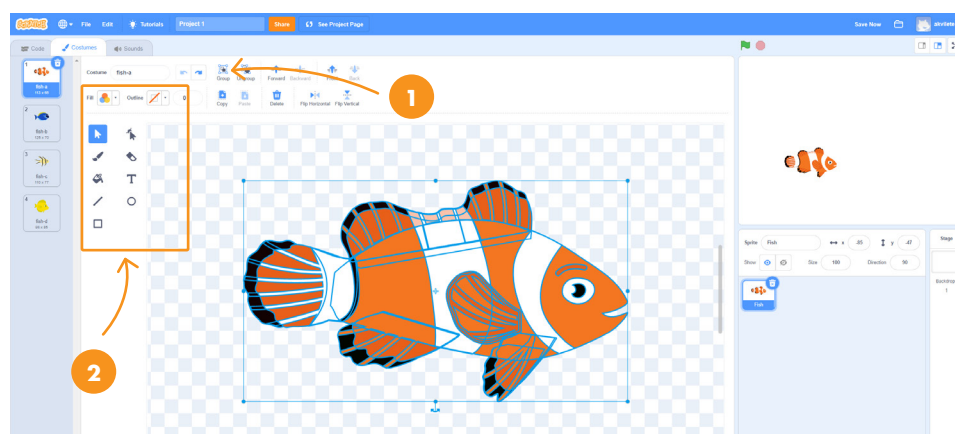
Searching and adding Sprites

Click on 'Choose a Sprite' to search the library. Use the 'Search' bar or the categories.



Editing Sprites

1. Select the Sprite then click 'Ungroup' before editing. 2. Then, select parts you want to edit and use the tools.



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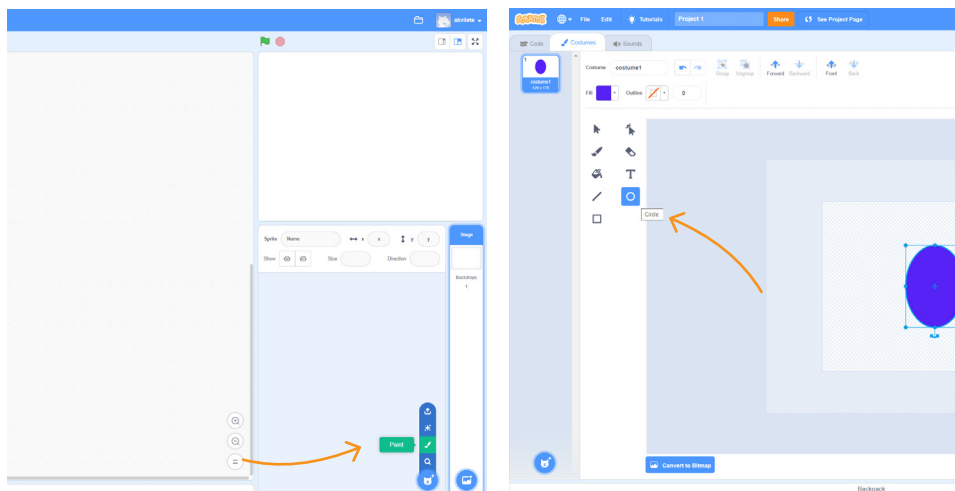




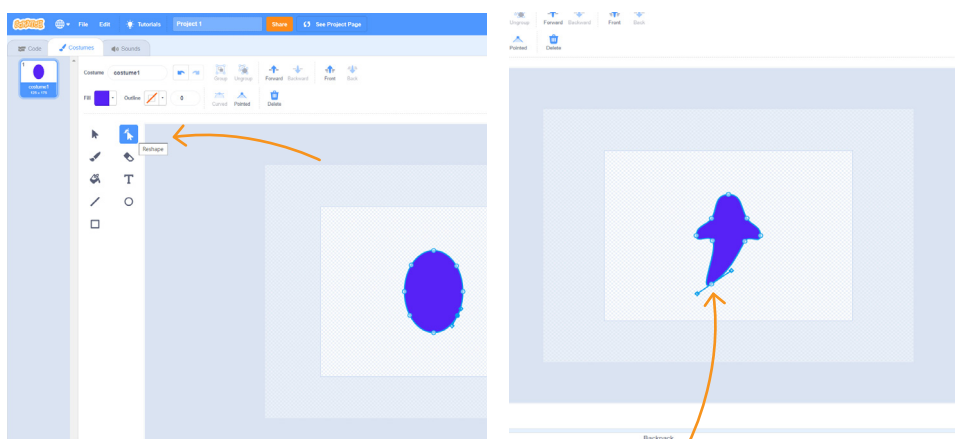
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Creating Sprites

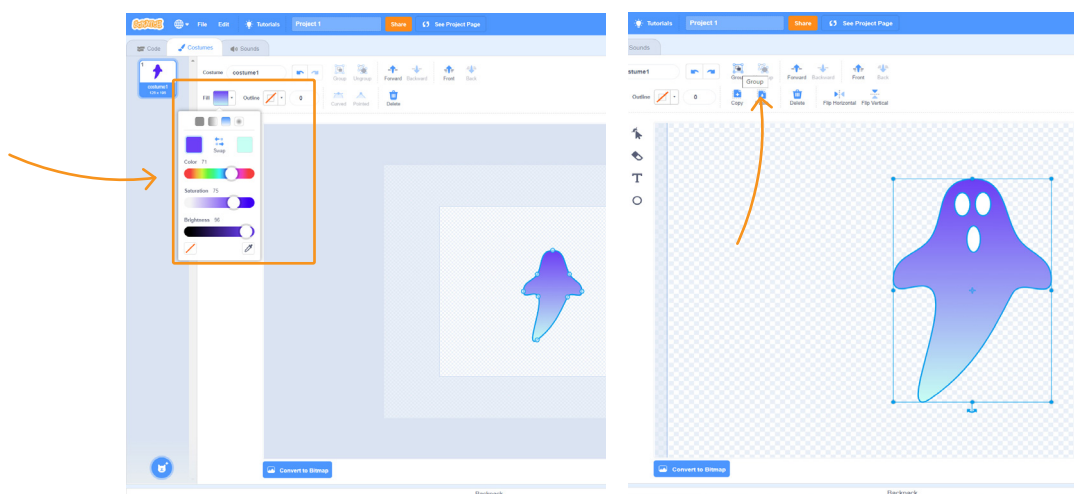
Click on 'Paint' and use the 'Circle' tool to draw an oval.



With 'Reshape' tool, add four extra points on the ellipse. Click on the points and move them to change the shape.



Play around with colours and add gradients in 'Fill' and 'Outline'.



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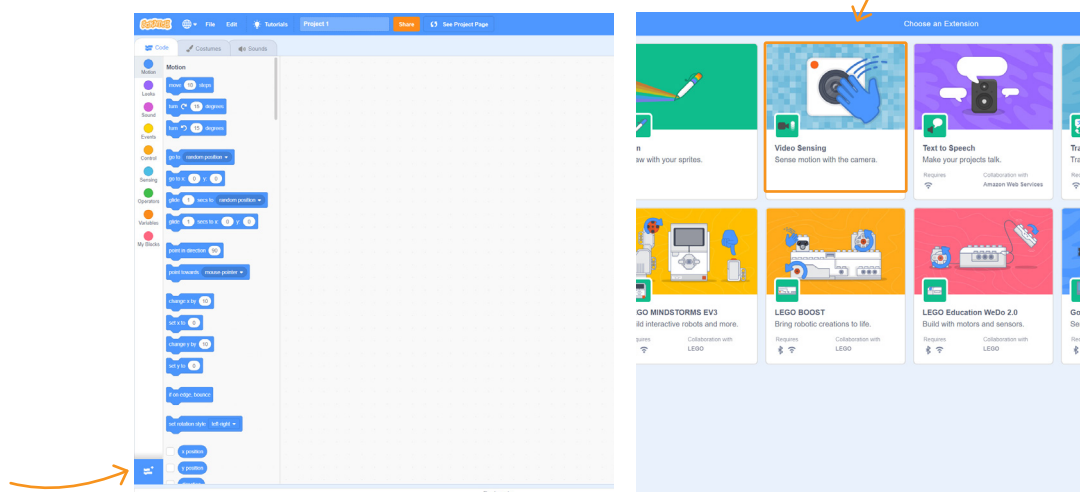




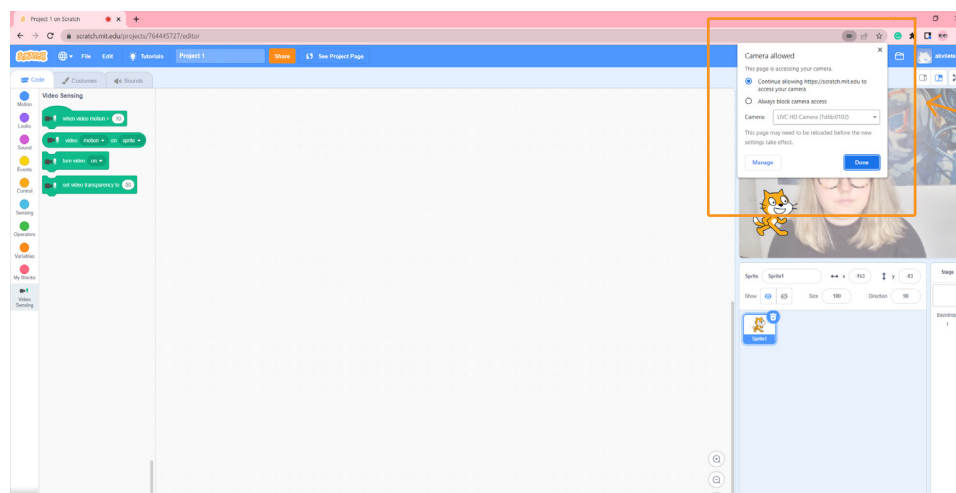
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Video Sensing

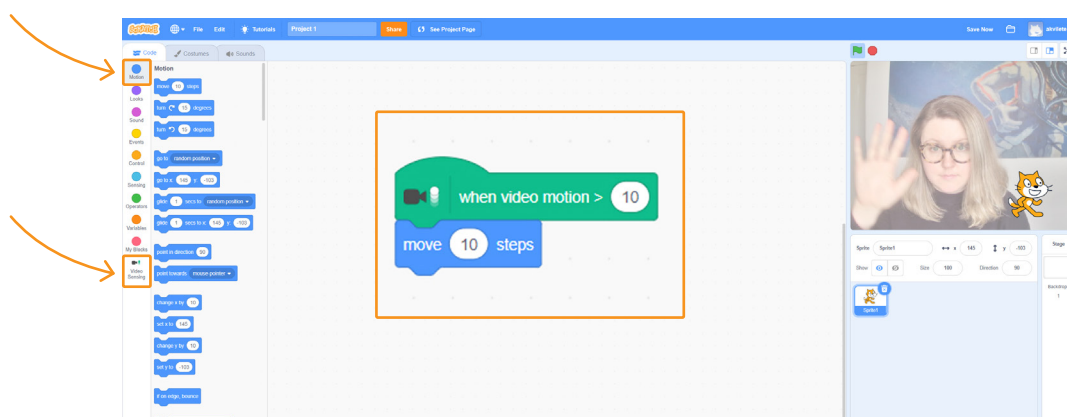
Click on 'Add Extension' and select 'Video Sensing'.



Tip: If you do not see yourself here, check your camera settings in the browser and refresh the page.



Drag and drop the first code block, then snap another one underneath it and wave in front of your camera to see your Sprite move.



Discover more ideas here

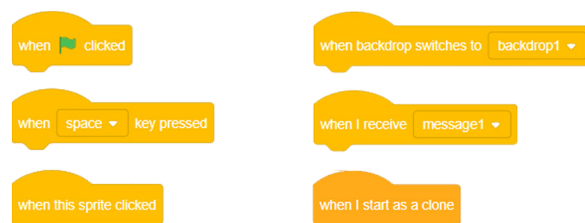




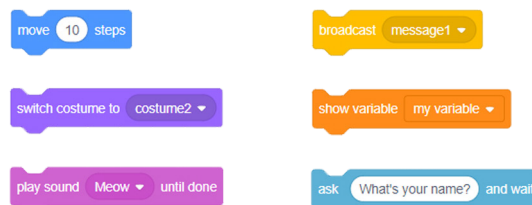
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Code block types

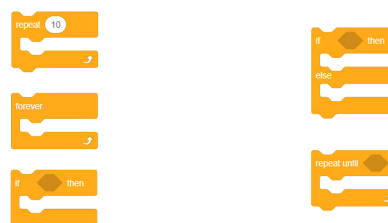
Hat blocks: they start a script or block sequence. They are mostly found in the Events category, but sometimes in custom blocks such as 'My Blocks' or in 'Extensions'. They have a rounded top and a bottom bump under which code blocks snap onto.



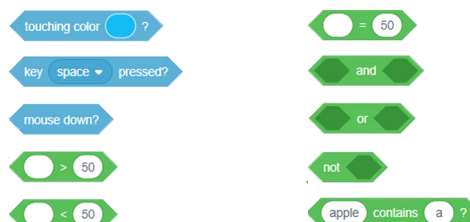
Stack blocks: these are middle pieces of your code. They give commands and instructions, and run from top to bottom. They are found in every category except 'Operators'. They have a top notch and a bottom bump, which means other code blocks snap above and below this block.



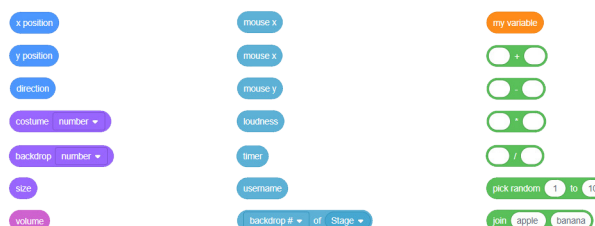
C blocks: these are like the bread of a sandwich and they wrap around other blocks. They hold other code blocks inside. They are used to loop commands and check conditions.



Boolean blocks: they are used to say that something is 'True' or 'False'. 'True' can be represented as '1' and 'False' as '0'. These blocks can be found in 'Sensing' and 'Operators' categories. They are hexagonal in shape and they fit inside other blocks.



Reporter blocks: they report value. The value can be anything, from position of the Sprite to a custom number. Reporter blocks cannot stack like other blocks. They have rounded edges and fit inside other blocks.



Cap blocks: these blocks stop the code from running. Cap blocks are placed at the end of the code. They have a top notch so other blocks stack above it and a flat bases, which means no other block can be added below it.



Discover more ideas here

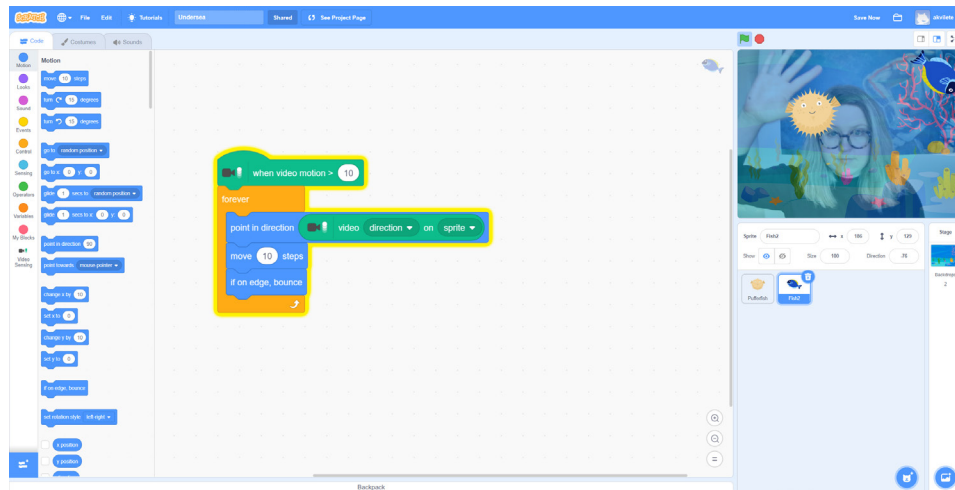




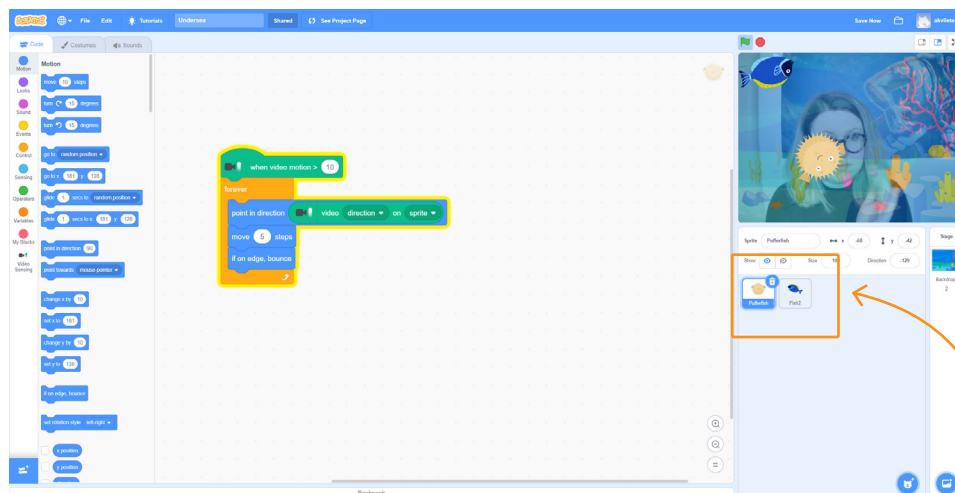
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Calming activity 1: Ocean Dip

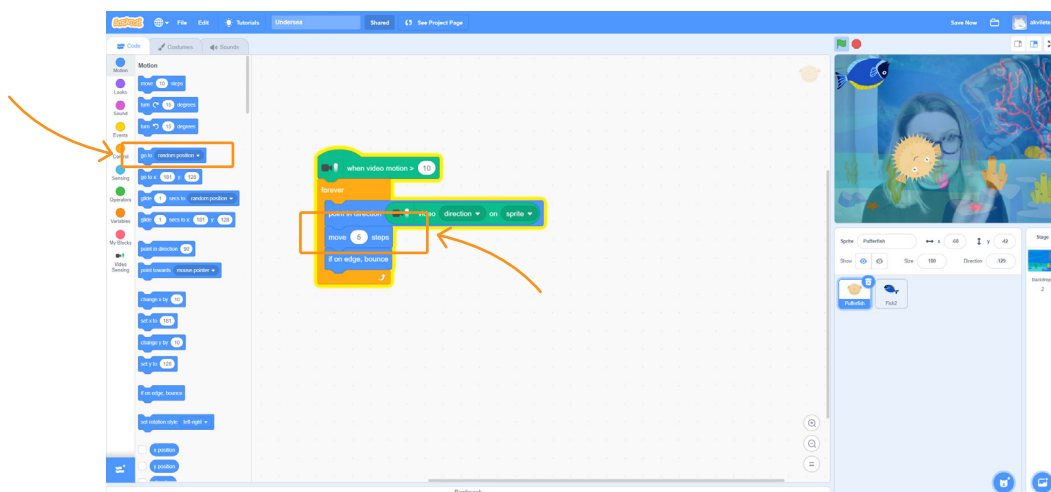
Design and build calming games. First, have a think about what makes you calm and relaxed.



Experiment: Can you add more Sprites, change their costumes or colour?



Experiment: What happens if you change the number or swap this block with a different one?



Discover more ideas here

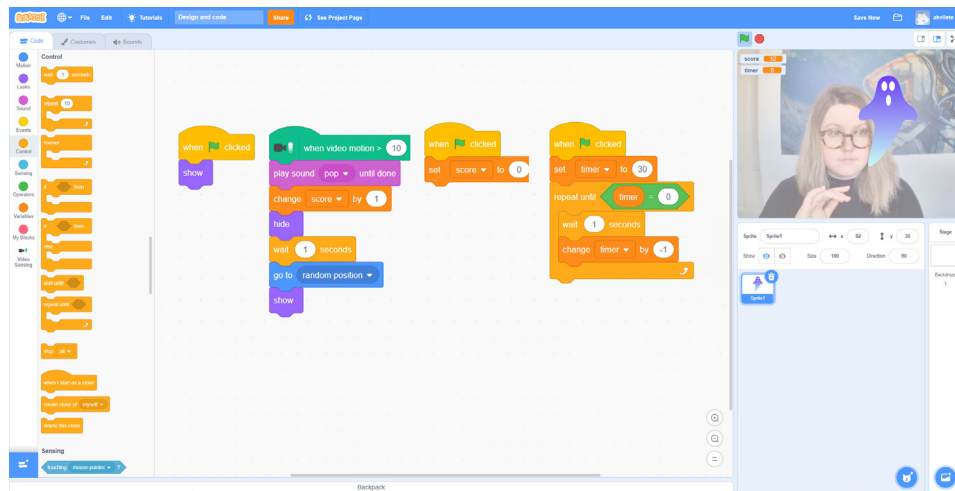




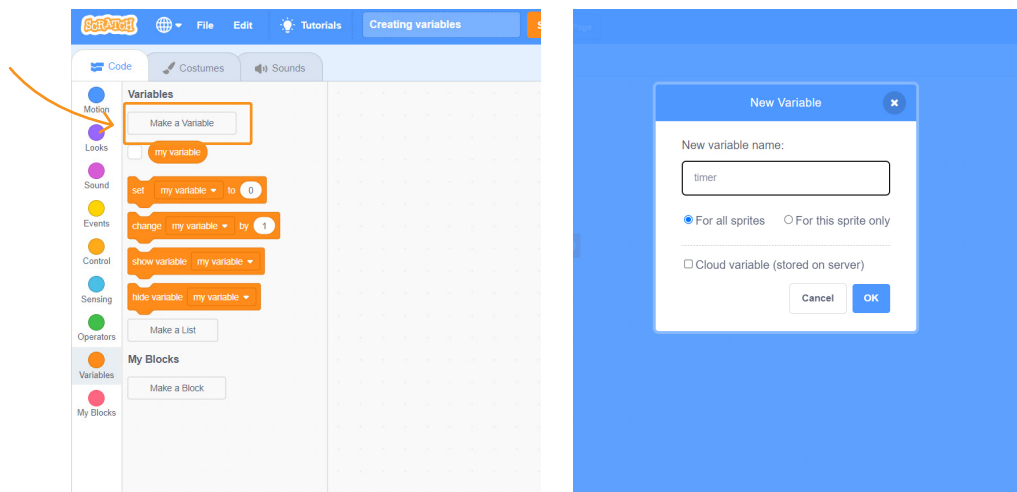
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Energising activity 2: Catch Them All!

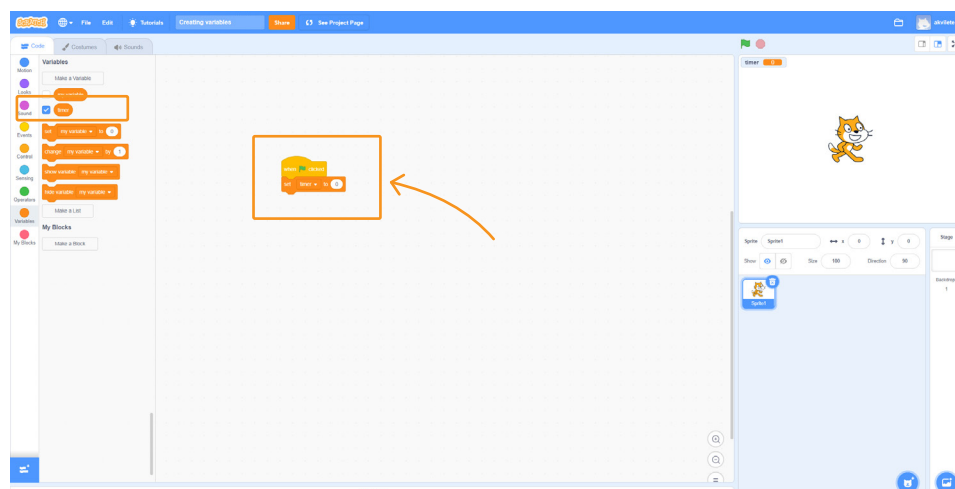
Design and build energising games. First, have a think about what makes you feel energised.



Creating a Variable: For this to work, you will need to create a 'Variable'. Click 'Make a Variable', then name it.



It will then appear in the drop down list in the 'Variable' code block.



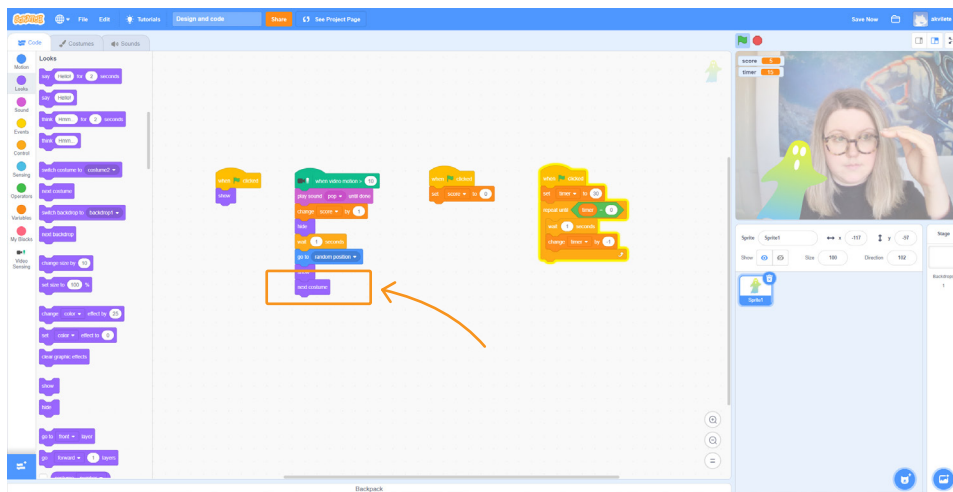
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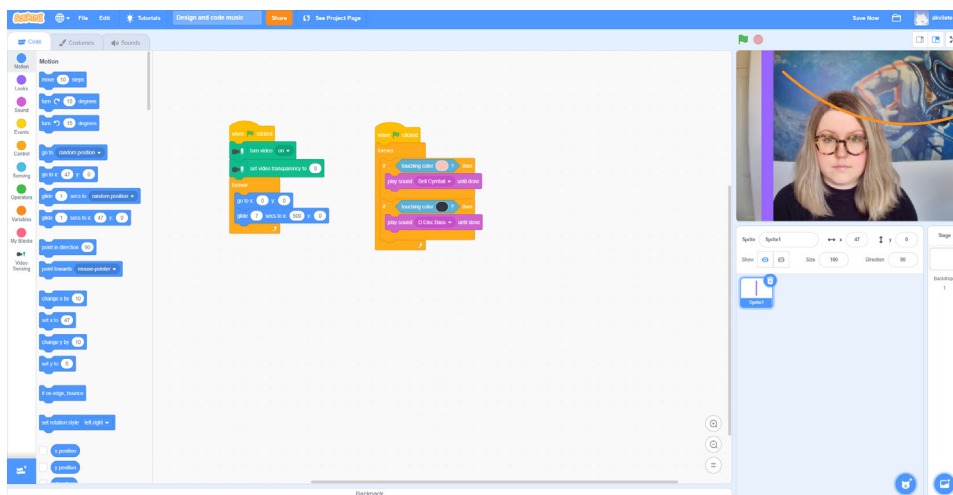
Experiment: Can you add a different code so your Sprite has an additional action?

Experiment: Can you create a different Sprite to change the aim of the game?



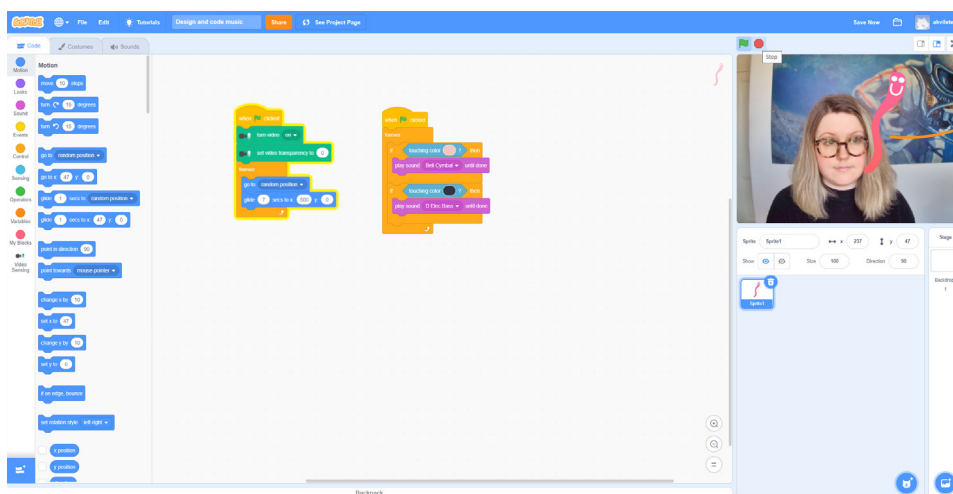
Calming/ energising activity 3: Sound of Colours

Design and build energising or calming games with sound. The Sprite will be scanning your camera's view and once it detects a colour it will make a sound.



this Sprite moves from left to right

Experiment: Can you add more colours or sounds? Can you redesign the Sprite and how it moves?



this Sprite glides to a random position

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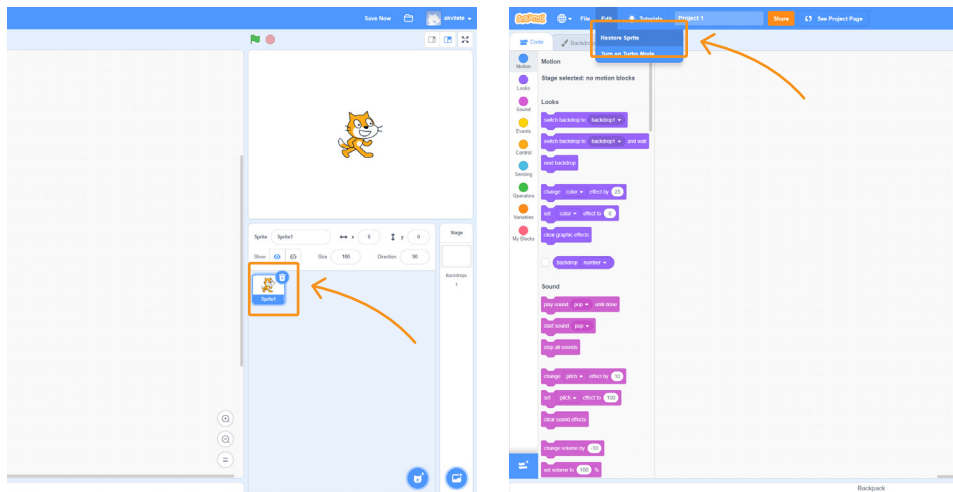




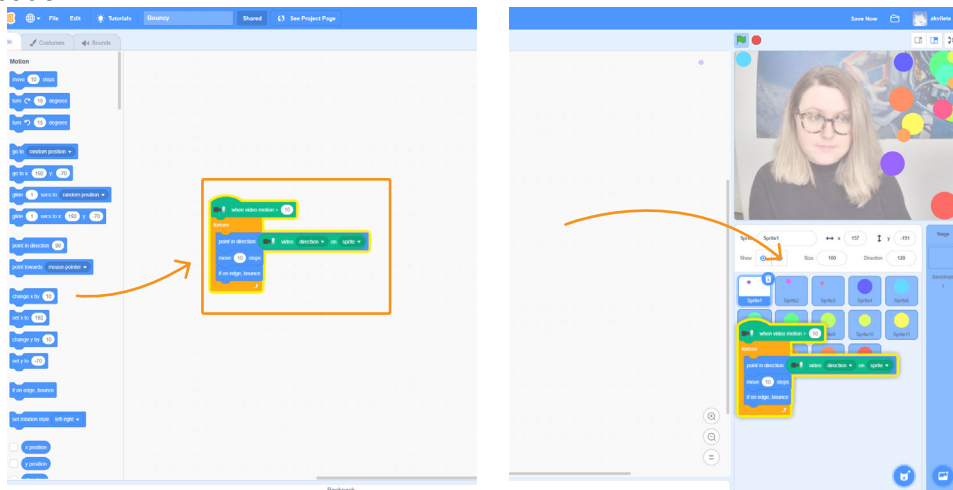
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Top tips

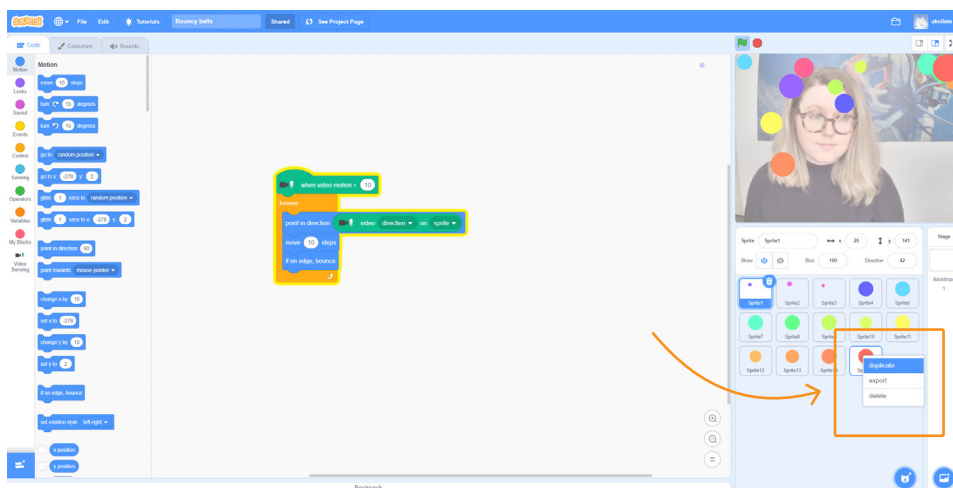
Accidentally deleting Sprites: If you accidentally deleted your Sprite, go to 'Edit' and click 'Restore a Sprite'.



Quick code copy: If you have many Sprites and want all of them to do the same, you can quickly copy the code. Drag and drop the code onto the Sprite. Wait for the Sprite to wiggle before releasing the code.



Duplicate Sprites: To duplicate a Sprite right click and select 'Duplicate'.



Discover more ideas here

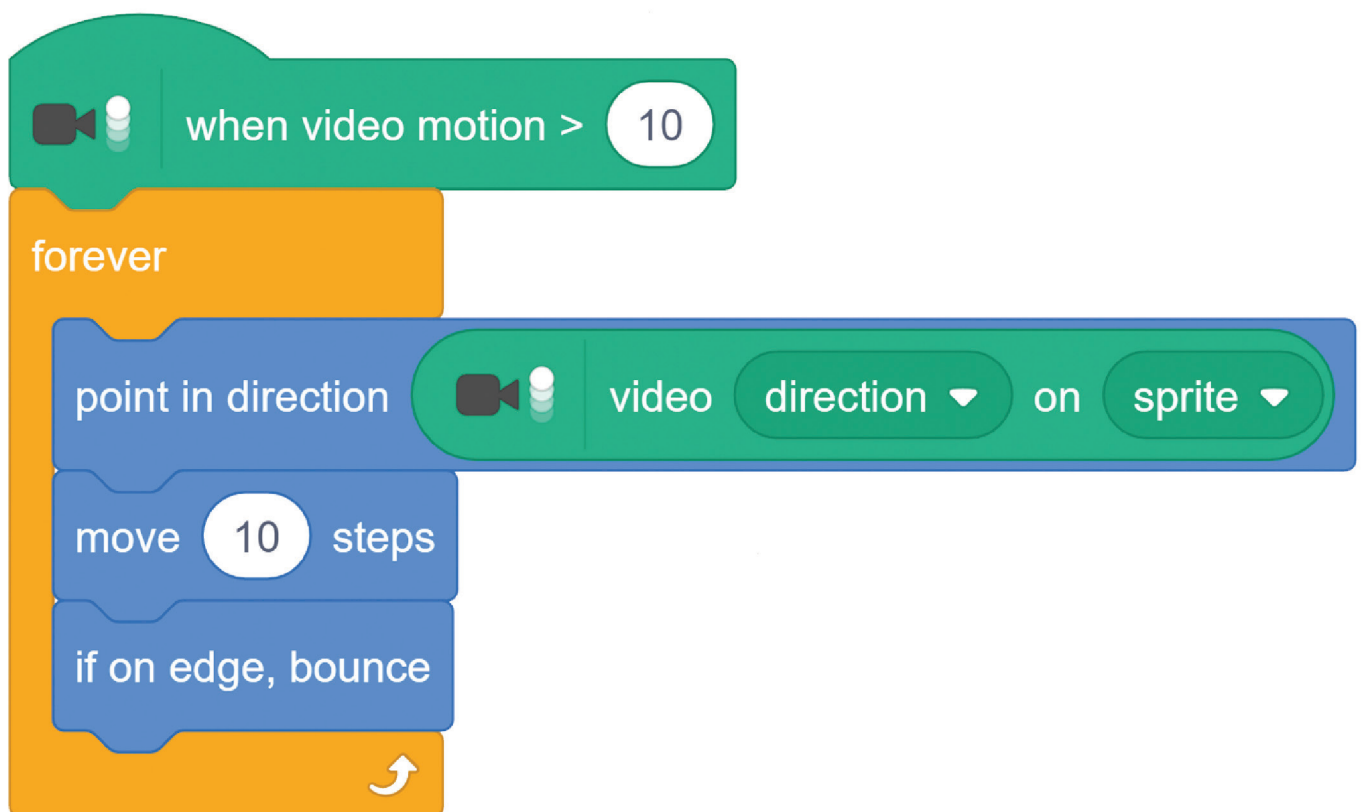




Coding Demo Resource

Calming activity 1: Pacific dip

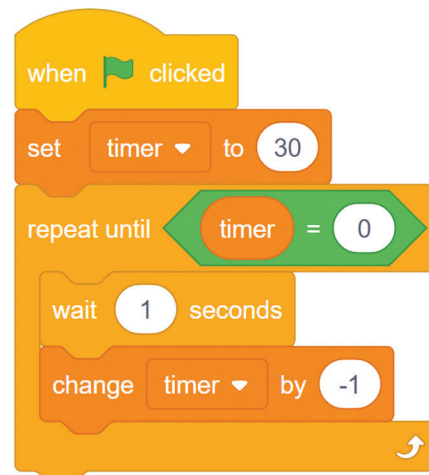
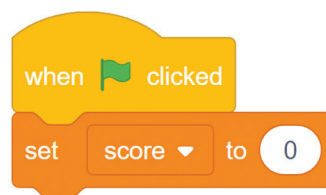
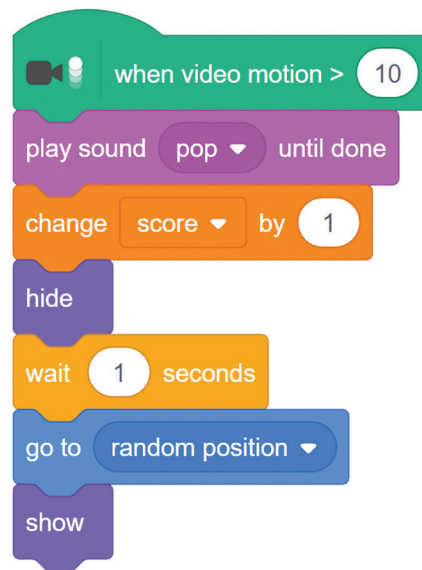
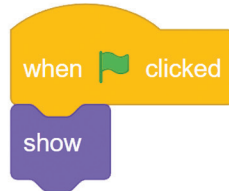
Tip: This is a great activity if you are just starting Scratch





Coding Demo Resource

Energising activity 2: Catch Them All!





Coding Demo Resource

Calming/ energising activity 3: Sound of Colours

