



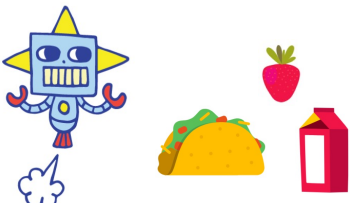
# Healthy Lunch-Bot Scratch Activity Quick Guide (LKS2)

## About this activity

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### Can you make a healthy lunch robot game?

Our Scratch Robot is making a picnic and needs to collect some food for a healthy picnic lunch. Can you use Scratch to design, test and debug an algorithm to help them do this?



### Learning intention:

- Design, test and debug an algorithm in Scratch to control a Robot and collect food items



### Key words

algorithm  
design  
test  
debug  
repetition  
selection  
input  
variable  
initialisation\*

\* term not found in KS2 computing curriculum

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## Getting started

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### Open Scratch 3.0

You can do this online here: <https://scratch.mit.edu/> or use a local version. This project only uses resources available in Scratch, so there's no need for students to sign in.

- Open Scratch
- Click 'start creating'
- Close the tutorial

### Setting up your sprites and background

Let's add in the sprites and background you will need for this activity:

- First delete 'Sprite1' (the cat) and then click 'Choose a Sprite' 
- Search for 'Robot' and select 
- Click on 'food' and select the Taco, Milk and Strawberry 
- We also need a lunchbox – choose 'Button3', but call it 'Lunchbox' 
- Now click 'Choose a Backdrop' 
- Our Robot is making a picnic so let's choose 'Forest' 

Now you are ready to begin!

**Hint:** the Sprites can be resized so they fit better on the screen

**Note:** Saving projects - if you would like to save your work as you go and are not logged in (recommended), you can save your project onto the computer: In the menu click **File > Save to your computer**. You can find it in Downloads saved as 'Scratch Project.sb3'

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## Healthy Lunch-Bot Scratch Activity Quick Guide (LKS2)

### Challenge 1 – collect the food



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**For this first Challenge, can you make the Robot move around and collect food items for a healthy picnic lunch?**

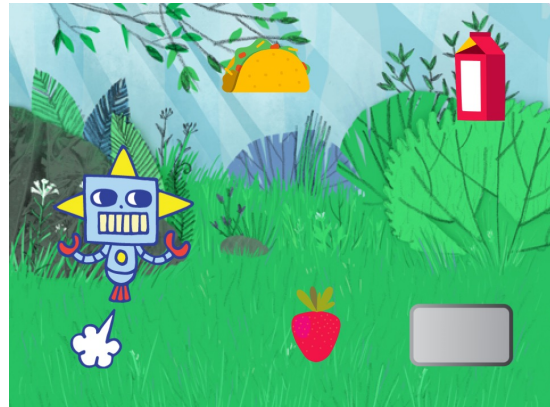
If you have used Scratch before you might have a few ideas how to do this!

For our solution, we are going to:

- make the Robot move using the arrow keys
- make the food items glide across to the lunchbox when the Robot touches them

We will do this using blocks from the following menus:

- Motion blocks
- Event blocks
- Control blocks



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### Challenge 2 – animate your sprites



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**For this Challenge, can you animate our robot and food (sprites) so they do something fun while moving around?**

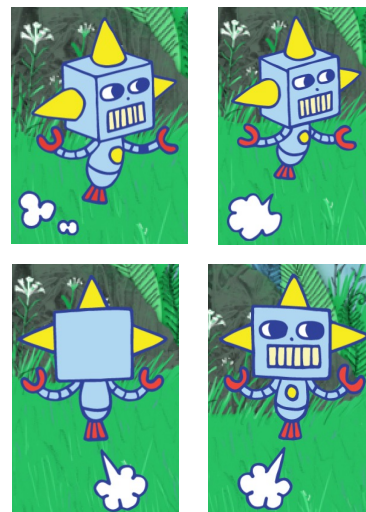
You may already have some ideas of how to do this, if you have used Scratch before!

For our solution we are going to:

- make the Robot switch costumes when the green flag is clicked, to make it look like it is spinning
- make the food items change when collected by the Robot
- add in some code to change the food back again

We will do this using blocks from the 'Looks' menu.

We will also use 'Events' and 'Control' blocks.



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## Challenge 3 – add in a score



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**Finally, let's add in a score so we can keep track of how many lunch items our Robot has collected!**

For this we will use something called a **variable**. An example of this was used in our Show to count the number of lunches in our delivery box.

We will:

- make it so that the lunch item counter goes up by one, when the Robot sends an item to the lunchbox
- make it so that you can reset the counter back to 0

To do this we will use blocks from the 'Variables' menu.

We will also be using 'Event' blocks.



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## Challenge 3 - details



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Now have a play! Click the red button to make sure everything stops and then click the green flag to reset everything in the **initialisation** code, and to start everything off again.

Now you can **test** by moving the arrow buttons and clicking on the sprites in the main screen to see if it all works together!

If you have time, what else could you add to the game?

- Perhaps you could add more food items to collect?
- Maybe you could make the items move around?
- Can you change the look of the lunchbox?

**Have fun!**



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