

Raspberry Pi

## Investigate the code

You will need:

- This link to the Scratch project: [ncce.io/TerasAdventure](https://ncce.io/TerasAdventure)

### Task 1: find the loops

#### Questions

#### Your answers ▾

How many condition-controlled loops are in Tera's adventure, across all sprites?

How many count-controlled loops are in Tera's adventure, across all sprites?

### Task 2: the star sprite

How similar are the blocks of code on the star sprite and the snowflake sprite?

Look at the **Repeat until** loop that is used with the star sprite. What condition needs to be 'true' for the loop to terminate?

In the same **Repeat until** loop, what does the **Move 15 steps** block do?

The star sprite also contains a **Forever** loop. Describe the role of

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the first two motion blocks inside the **Forever** loop.

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The same **Forever** loop contains this block of code:



What do you think this block of code is doing?

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Looking at the same **Forever** loop, describe the purpose of its design.

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The star sprite also contains this block of code:



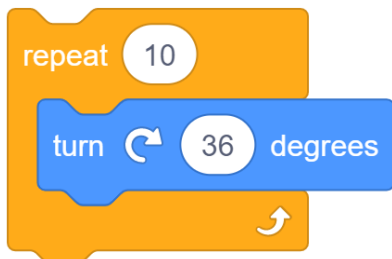
What do you think this block of code is used for? Why is it needed?

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### Task 3: the Tera sprite

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In the 'Tera jump' subroutine you can see this block of code:

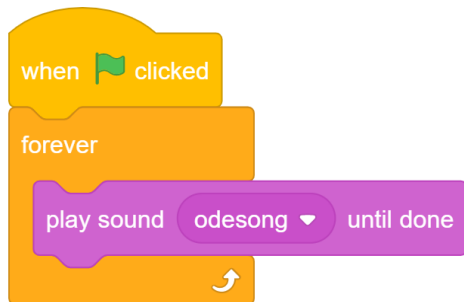


Why has this block of code been used *instead of* **Turn 360 degrees**?

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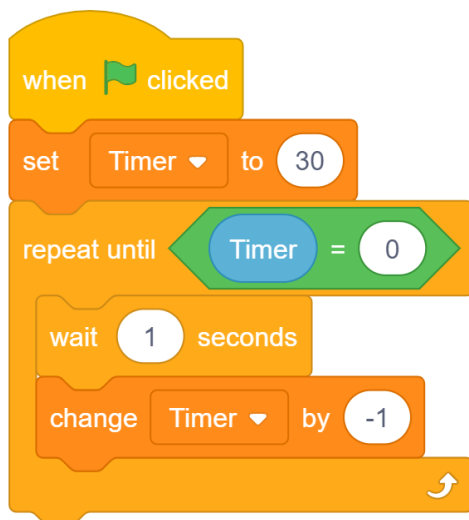
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Why does the **Play sound** block need to be inside this **Forever** loop? What is its purpose?



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This block of code is used as a countdown timer for the game. Which other type of loop could have been used for the same purpose? Describe how it could have been used.



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In the 'Tera angry' subroutine, why has a **Repeat (30)** loop been used for the costume instead of a **Repeat until** loop?

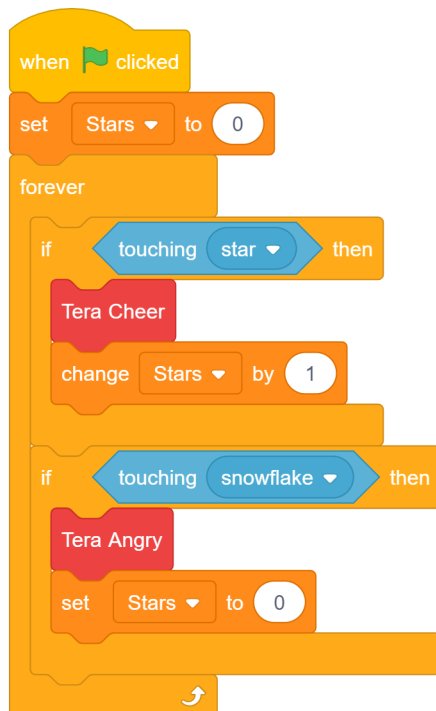
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This block of code uses a **Forever** loop. Could a **Repeat until** loop have been used instead? Explain

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your answer.



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## Explorer task

Modify the code to see if you can use an alternative loop to perform the same task. You can pick an example from 'the Tera sprite' task to try.

Resources are updated regularly — the latest version is available at: [ncce.io/tcc](https://ncce.io/tcc).

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