



Moving Cars

I can use instructions to make characters move at different speeds and distance.



Open the ScratchJr app and start a new project in the My Projects screen.



Select the **City** background.

Delete the cat sprite and add a **Driver** instead.



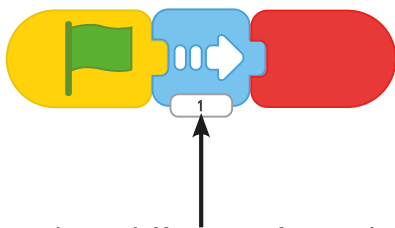
Drag the **SHRINK** block into the working area and tap to make the car the right size for the road.

Add the correct block of code to make the car move (from left to right). Start on the **GREEN FLAG** and use an **END BLOCK** to finish.



Test and Debug

1. What happens if you click on the number underneath the **MOVE RIGHT** arrow and change to a bigger number, like 5?
2. What happens if you change the End block to **REPEAT FOREVER**?



3. Does it make a difference if you change the number again underneath the **MOVE RIGHT** arrow?
4. Find the block for **SET SPEED** and add it to your code. Use it to make your Driver go faster or slower.



At the top of the screen, click the Green Flag to start the code and the red Hexagon to stop.





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You need a ScratchJr project with a car **Driver** on a **City** background.

Add a second car **Driver** of a different colour. Change the size and position on the road.



Let's Have a Race!

Program the instructions for one car, so that it travels 10 steps along and then stops.
Program the other car so that it travels the same distance but goes faster!



Test your Program by clicking the Green Flag!

Keep Racing!

Change your instructions so that the **END BLOCK** becomes **REPEAT FOREVER**.
Do this for both cars.



Change your instructions so that the **END BLOCK** becomes **REPEAT FOREVER**.
Do this for both cars.



Test again by clicking the Green Flag!

You can keep changing your code to see if you can change the results of the race.

Try making one car travel further. Experiment to see what else you can do!



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You need to have completed the ScratchJr project with two car **Drivers** on a **City** background, changing the speed of the cars to make a race.

Challenge:

Can you use your skills to create a new project with different sprites and background?



1. Use the **Suburb** background and add cyclists instead of cars. Can you make one cyclist travel in the opposite direction to the other?



2. Use the **Underwater** background and add four different sea creatures. Can you make them all move in different directions and speeds?

