



Race Track 1

Creating a Race Track

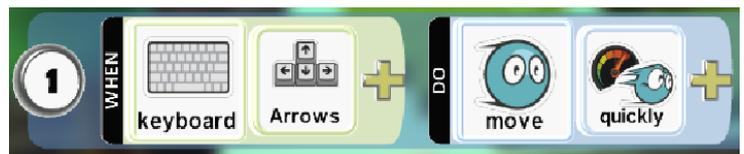
1. Open Kodu Game Lab and create a New World. It is a good idea to save your work straight away, then save regularly as you continue. Delete all of the initial ground area.
2. Select the Ground Brush tool then use the right mouse button to delete ground. Change the building material, brush size and shape then, choose a colour or pattern for your track.
3. Draw a track in your chosen colour. Move the mouse slowly to avoid leaving gaps. Go back to add or delete ground and smooth the curves afterwards. Create separate start and finish points for your track.
4. Use a different material/colour for the start and finish lines. Change the ground material again to make your start and finish lines stand out in a different colour or design.



Top Tip: When the ground brush is selected for adding or deleting ground, use the left and right keyboard arrows to make the brush cursor bigger or smaller. A bigger brush covers more ground quicker; a smaller brush allows for more fine detail.

Adding a Character

1. Add a Cycle character or Rover to control. Select the Object Tool, then choose your character. Click on your start line to add the character to the world
2. Reduce the size of the character and rotate to face the correct direction. If the character is too big, right-click and select Change Size from the menu. Select Rotate to turn it to face the right way.
3. Program your character to move. Right-click and select Program. Add a line of code to make your character move (quickly) when controlled with the arrow keys.



Play your game now to test it. It is well worth spending some time on this stage to improve the playability of the track and make sure that character can be controlled around it. Go back and make the track wider or easier if needed.

Finish or End Goal

Add another object at the finish line that your character has to reach. You could choose a simple pipe or something else of your own choice. Program the character so that when the character reaches the end goal object, the game is won.



Test out your game again and improve it until you are happy with it!



Race Track 2

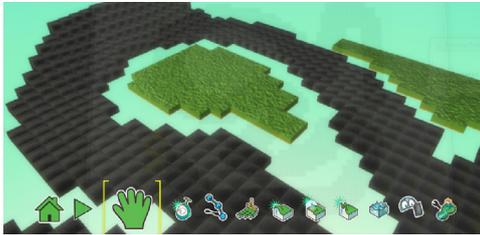
Before starting this activity, you should have completed Race Track 1 by creating a track in Kodu and adding a character that has been programmed.



Improving Your Track

For a better looking or more advanced track, try these ideas:

- Use a smaller brush to smooth the edges of your track curves.
- Use the options to add and delete ground on the inside or outside of bends to adjust the track design.
- Make the straight sections neater with straight edges on each side of the track.
- Add a narrow shortcut path, which could be taken as a shorter but trickier route.
- Add a different coloured ground, such as grassy areas in any empty spaces. Be careful not to connect this with your track or the character will ride straight onto/over it!

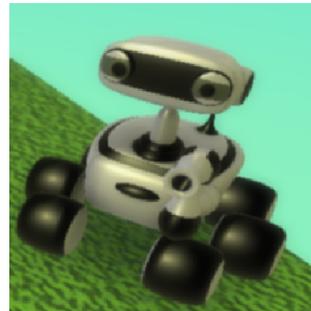


Top Tip: Viewing the whole track is the easiest way to refine the shape and design. Zoom out, then change the view in Kodu (known as orbiting the camera) by clicking and dragging with the right mouse button. A birds-eye view, looking straight down will show the track perfectly.

Controlling Your Character

To improve control of your character, you can change some elements by selecting Settings from the menu when right clicking on the character. These include:

- Forward Speed Multiplier
- Turning Speed Multiplier
- Forward Acceleration Multiplier
- Turning Acceleration Multiplier



Try adjusting these now to improve control over the character on the track. Test out your game and keep adjusting the settings until you are happy with them.

World Settings

In the World settings from the Tool Palette, you can change camera settings. This allows you to decide on a starting point for your camera and a camera type (free or fixed). Try changing these and test your game again.

Also in World settings, you can change the sky and lighting effects.





Race Track 3

Before starting this activity, you should have completed Race Track 1 and Race Track 2 by creating a track in Kodu, improving it and adding a character that has been programmed.

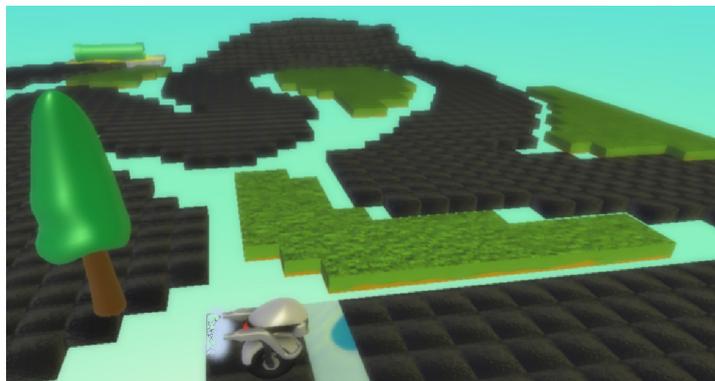
Advanced Features for your Track

1. Banked bends

Use the Up/Down tool to raise the ground around the outside of wide bends, then the Flatten tool to smooth the area.

2. Hills and Bumps

Use the same idea to add hills or bumps along the track that the character has to ride over. Remember to smooth them to avoid him getting stuck.



3. Trees, Rocks and Other Obstacles

Adding objects such as trees and rocks will firstly make your track and surrounding area much more interesting as a game environment; secondly they will provide additional obstacles for your character to manoeuvre around. Be careful where you place them!

As an extra challenge you could program the objects or the character to react when they are bumped.

Top Tip: When adding a number of similar obstacles such as rocks or trees you can copy and paste to save time. Use <Ctrl> C and <Ctrl> V on your keyboard for an even quicker shortcut!

4. Coins or Stars to Collect

Can you add objects that need to be collected along the way? Program your character to collect them when bumping into them.

5. Point-scoring for Collecting Coins or Stars

After adding and programming objects, try adding point-scoring so that you score one point every time an object is collected and the game records your running total.



6. Add a Timer

Finally, try adding a timer that starts at the beginning and counts until the end. Play your game against the clock and try to collect as many coins or stars as you can while attempting to beat your best time!

As an extra challenge you could program the objects or the character to react when they are bumped.