

Introduction to Kodu Game Lab

We all love to play computer or mobile games, but what if we can create our own games? Wouldn't that be great? Think!

Have you heard of Kodu? We can create games using Kodu.

What is Kodu?

Kodu software helps you to create games without knowing any programming. You can choose and position elements like terrain, trees, buildings, and characters in a 3D world using a gaming controller or a computer's mouse and keyboard.

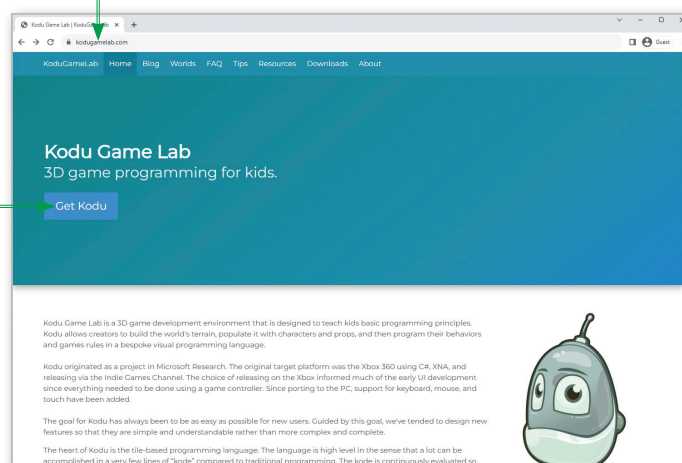
Students of all ages find Kodu to be simple and enjoyable to use. Games of several genres, including adventure, racing, puzzles, and shooters, can be easily created. Kodu is a fantastic tool for expressing your creativity and learn the fundamentals of game design and programming.

Starting Kodu

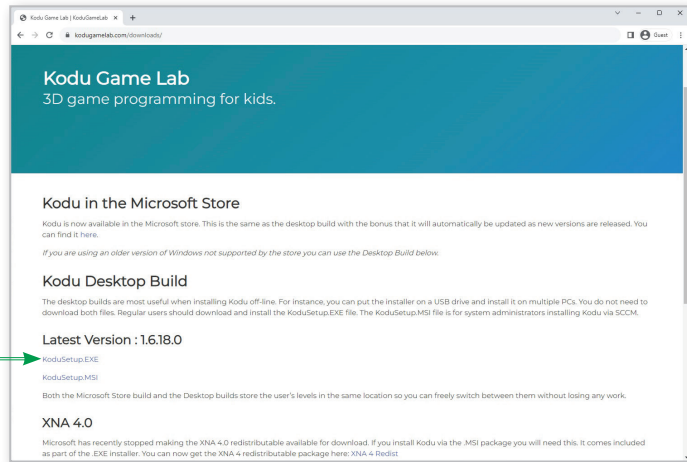
You must download and install the Kodu software on your computer from <https://www.kodugamelab.com/>. To do so, follow the given steps:

1 Open Google Chrome from the start menu and type <https://www.kodugamelab.com/> in the address bar.

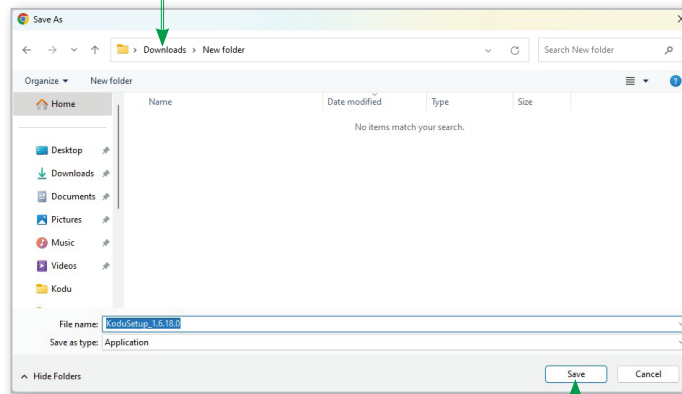
2 Click on the **Get Kodu** button.



3 Click on **KoduSetup.EXE** link.



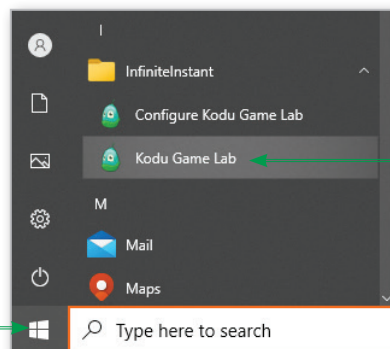
4 Enter the desired location where you want to save the file.



5 Click on the **Save** button.

Once the setup is downloaded, double-click on the setup file to install Kodu Game Lab. After installation, launch Kodu. To do so, follow the given steps:

1 Click on **Start** button.

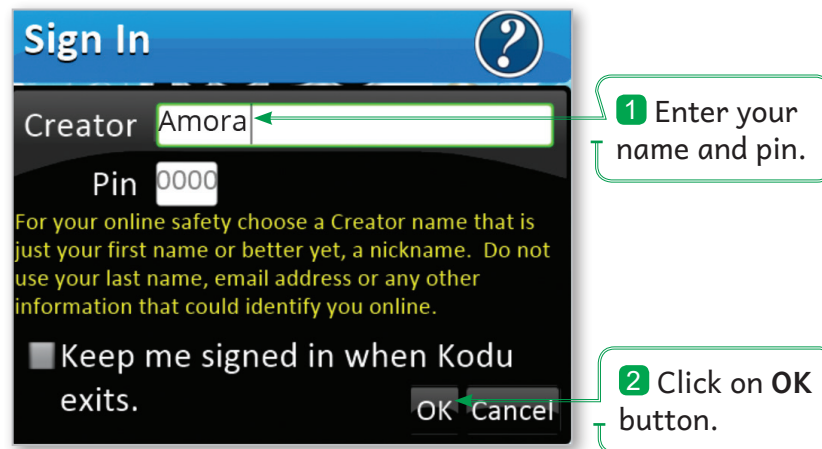


2 Scroll down and click on **InfiniteInstant** folder and then click on **Kodu Game Lab**.

The Kodu main menu will appear, from which you can select to build a new world, load an existing world, or view the community worlds.

Tutorial on Kodu

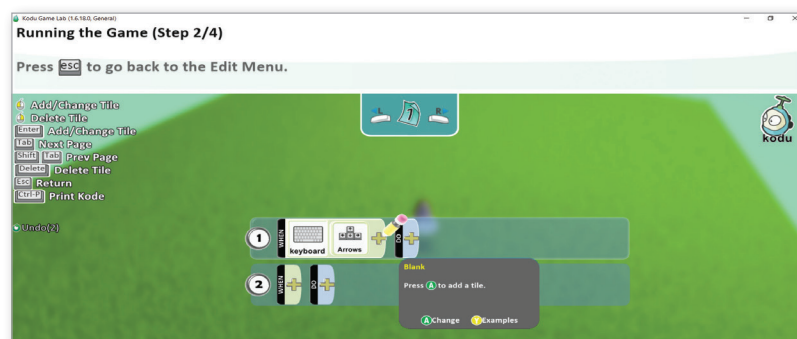
To start with the first tutorial on Kodu, follow the given steps:



You will get a screen as follows:



You will get different instructions on the screen. Follow the instructions given in the tutorial to learn to move around in the Kodu world.



Task 1

Let us make changes in the above tutorial, but first let us understand what an object is. An object in the Kodu game lab can be a character or item like an apple, tree, bot, or kodu that you can program.

Step 1 Click on  **Add Object** and select apples. Add apples to the world.

Step 2 Now right-click on the Kodu and select Program.

Step 3 Program your Kodu to:

- Move towards the apples when Kodu sees them.



- Eat the apples when Kodu bumps into them.



Step 4 Now, press **Esc** key to return to main menu.

Step 5 Press  to play the game.

Task 2

Now that you have learned to move around, let us play another game in Kodu. From the main menu, click on **Community**. In the search bar type Fishy Fishy.



Use the following keys to play:

- W - Move Forward
- S - Move Backward
- D - Turn Right
- A - Turn Left

The player to collect most coins wins! Enjoy!

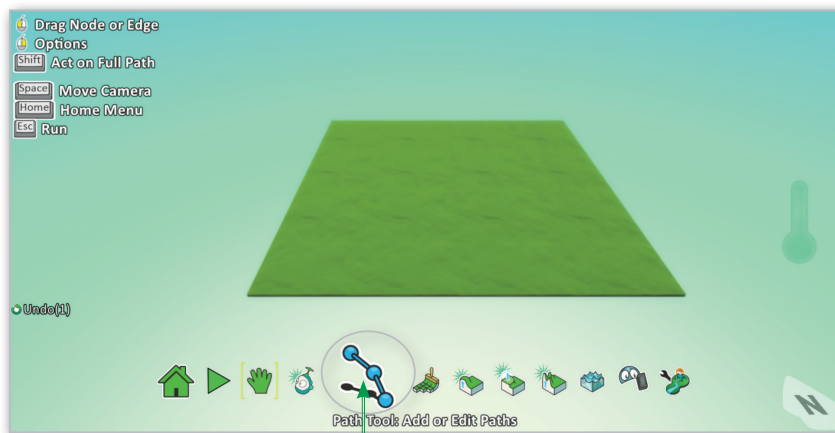
Creating a Game on Kodu

Let us now learn to create our own racing game in Kodu. To do so, follow the given steps:

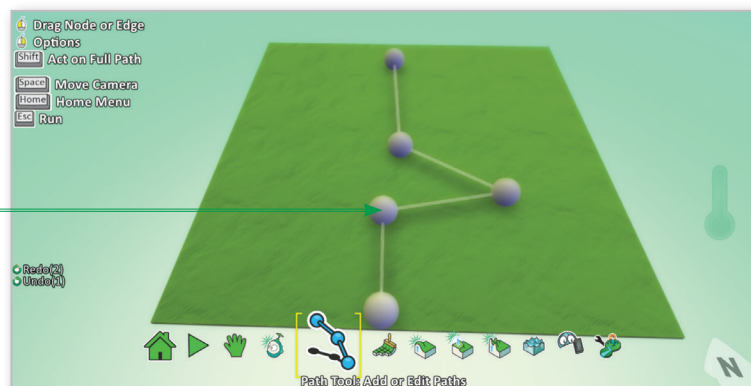
1 Click on **New World** and select the first terrain.



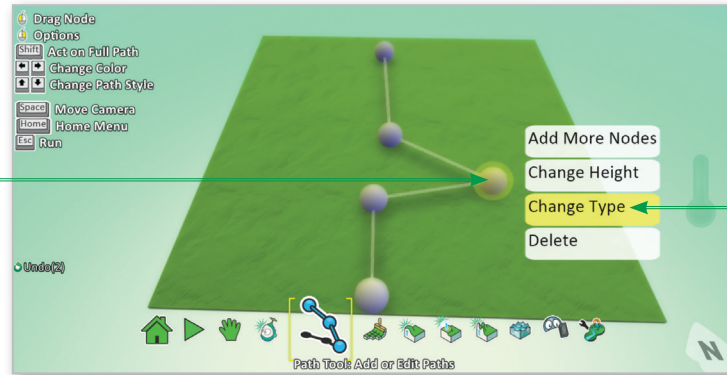
2 Select the **Path Tool**.



3 Drag and click with the mouse to create a zig-zag path as shown. Double-click at the end to release the Path tool.



4 Right-click on any node.

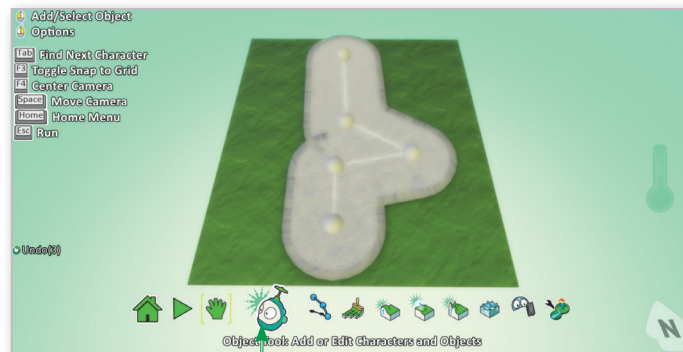


5 Select **Change Type**.

Repeat this step thrice to get the following kind of path.



Next, we will add our racing bot.

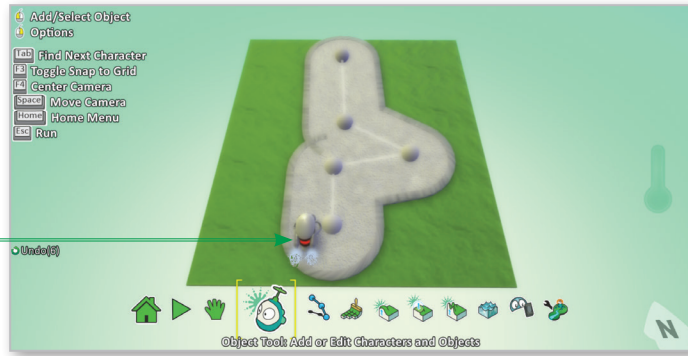


6 Click on the **Add Object**.



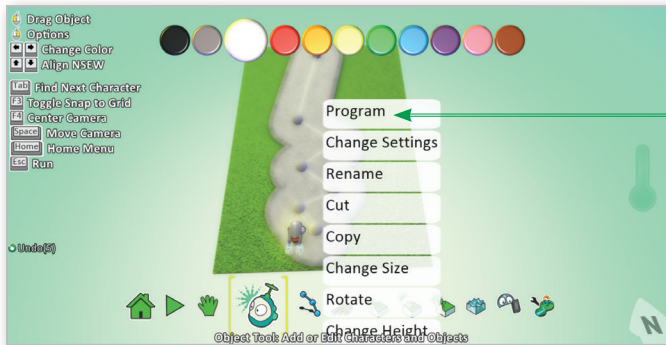
7 Click anywhere to open the Bot screen and select **cycle bot**.

8 Place the cycle bot on the path as shown.



Program Our Kodu

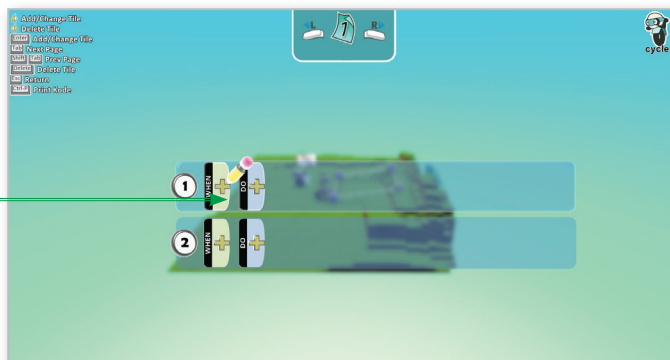
Now, we will program our Kodu to move on the path. To do so, follow the given steps:



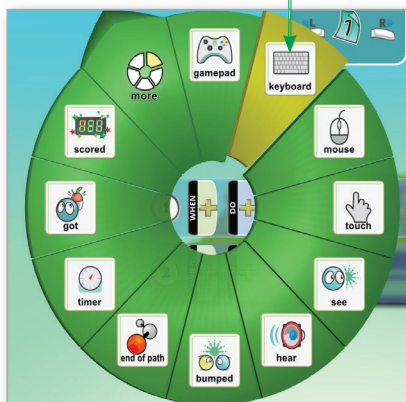
1 Right-click on the cycle and select **Program**.

Similarly, we can code our bot further as follows:

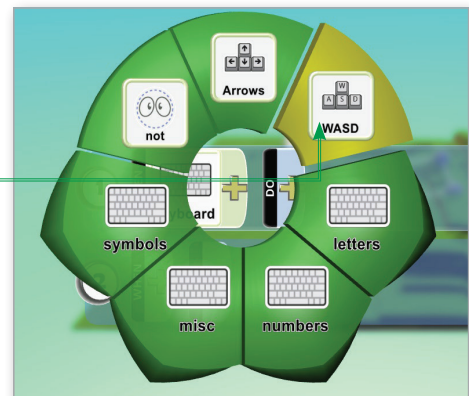
2 Click on plus sign to code your bot.



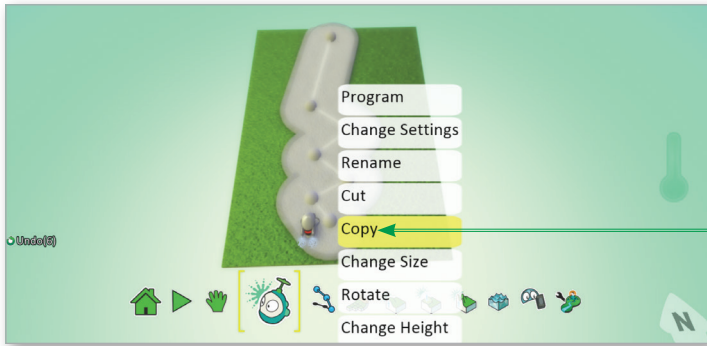
3 Select **Keyboard** from the menu.



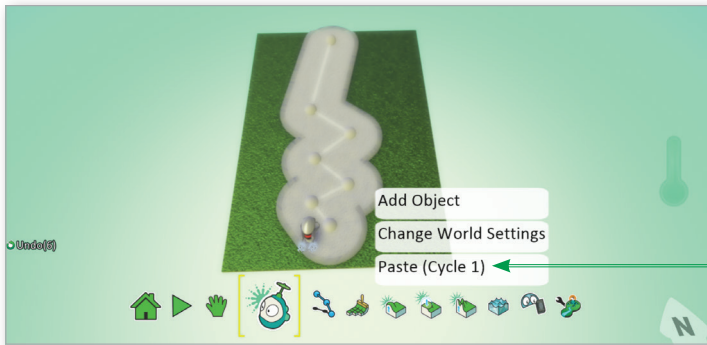
4 Click on the plus sign again and select **WASD**.



Now we will add an opponent to our game.



5 Right-click on the cycle and select **Copy** from the popup menu.



6 Right-click and select **Paste (Cycle 1)** from the popup menu.

7 Using the  key, change the colour of the second cycle to distinguish between the two cycles.



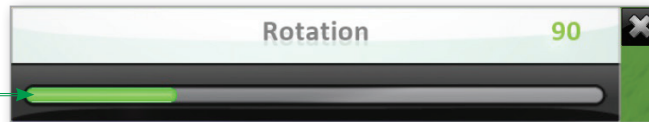
8 Next, add the following code to the second cycle.

9 Click on the **Object Tool** and select **pipe** → **straight pipe** to signify end of the race.



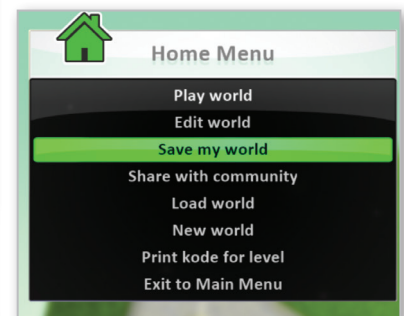
10 Right-click on the pipe and select **Rotate**.

11 Increase the value to rotate the pipe.



We now want to add programming to our first cycle so that when it bumps into the pipe, it wins the race.

12 Add the following code.



Click on the **Play** button to play the game. Use the WASD keys to make the cycle move. You win when you bump the pipe. Enjoy!

Click on the **Home** button, and then click on **Save My World** to save this game.