

# Karel Project #5

## RULES OF FUN

What makes a game **fun**? A **Master Creator** can use **rules** to make their maze **fun to play**.

Select **Creative Suite**, open **Programming**, and launch a new **Karel** project. Click on **File** and save the worksheet in the folder **course-karel-projects** under the new name, **rules-of-fun**.

Click on  and select  to remove the example maze.

### Goal: Create a Game

To **create a game**, you will:

1. Create a simple **maze**.
2. Convert your **maze** into a **game**.
3. Add **Goals** that tell your **story**.
4. Write a **program** to solve your **maze**.

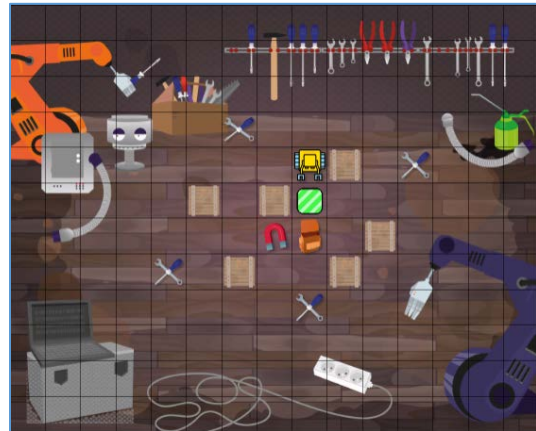
## Fun Rules

You know how to design a **maze** with a **story**. Designers can also use **rules** to tell a **story**.

Consider this **story**:

*“Karel is cleaning the basement. The magnet needs to be in the bag. Once the bag has been filled, go to the home square.”*

The player’s **objective** is to put the **magnet** in the **bag** before they go home. What should happen if the player fails to **put the magnet in the bag**? Should the **game** restart?



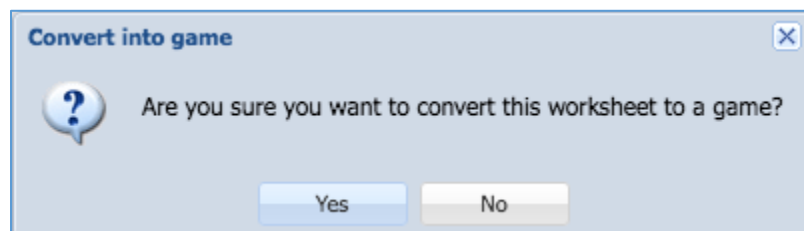
## Step 1: Create a Maze

To begin this project, you will need a maze that features an **Object** and a **Container**. Feel free to reuse a **template** or a **maze** from a previous project. Provide a simple **story** for this maze.

Next, you will add **Goals** to your **maze** to make it more fun to play.

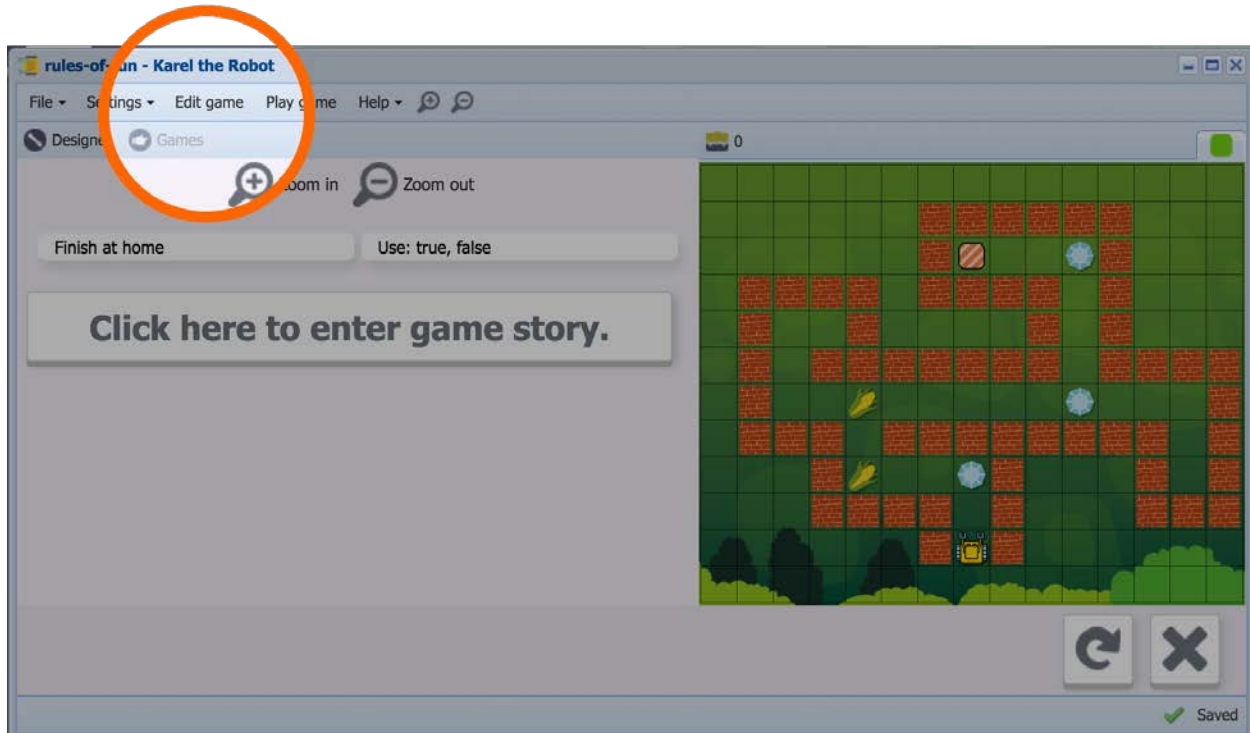
## Step 2: Convert to Game

Next to the **Designer** button, there is a **Games** button. Click the button, and you will see green text that says **Convert into Game**. Click the text. You will see the following message:



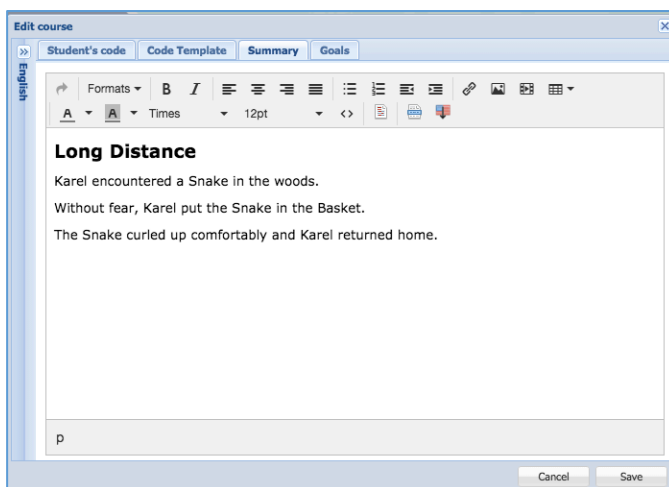
By selecting **Yes**, you will gain the ability to add **rules** to your **maze**. Select “Yes”.

In the **Designer**, there is now a small button that reads **Edit game**:



Click **Edit Game**.

A new **window** will appear.



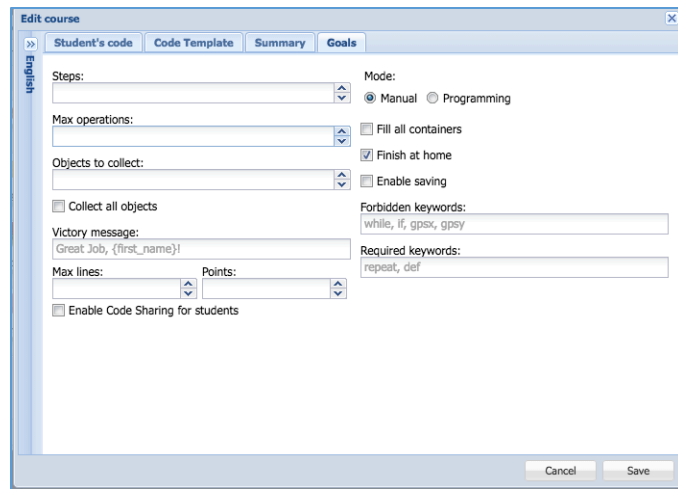
**Goals** are the way you will design the **rules of your game**.

Select **Goals** from the tabs at the top of the window.

## Step 3: Add Goals That Tell Your Story

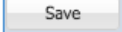
Take a look at the different **Goals** that you can use.

- **Collect all objects** will require the player to **get** every **Object** you have placed in your **maze**.
- **Finish at home** requires the player to reach the **Home Square**.
- **Fill all containers** requires that all **Containers** in your maze have an **Object** put into them.



## Step 4: Write a Program to Solve Your Maze

You now have a lot of **power!** Anyone who **plays** your **game** will not be able to finish your **maze** unless they obey the **rules** you choose.

Once you are done with **Goals**, select  in the lower-right corner. You can now **play** your **game** by selecting **Play** at the top of the window. This is a good way to check if your **rules** help to tell your **story**.



# Project Checklist

Your project will be finished when:

1. You have created a simple **maze**.
2. You have converted your maze to a **game**.
3. You added **Goals** to your Karel maze.
4. You have written a **program** to solve the maze.