

# Karel Project #13

**HARD FUN**

A good maze is not **too challenging**, and not **too easy**. Use **rules** and **maze design** to get the balance right.

Click on **File** and save the worksheet in the folder **course-karel-projects** under the new name, **hard-fun**.

Click on  and select  to remove the example maze.

## Goal: Create a Challenging Maze

To **balance the difficulty of your maze**, you will:

1. Build a **new maze**.
2. Balance and refine **Goals**.
3. Test and **iterate** your design changes.

# Making Hard Fun

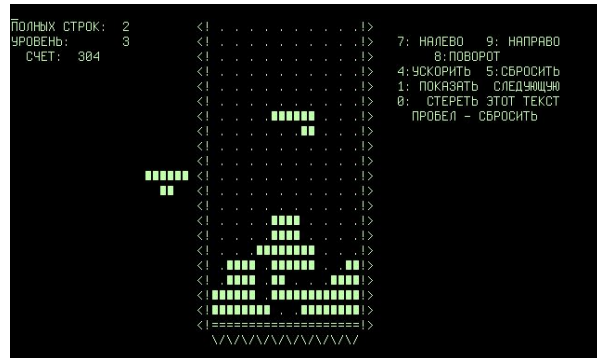
Many fun games are **easy to learn, and hard to master**. Your goal for this project will be to **balance the rules** of your game to make it more fun.

Checkers can be learned in a few minutes, but it can take years of practice to become a master.



Source: Wikimedia Commons ~Jaroce

Choosing the right rules can make a big difference and **using fewer rules** is the best way to create an elegant maze.

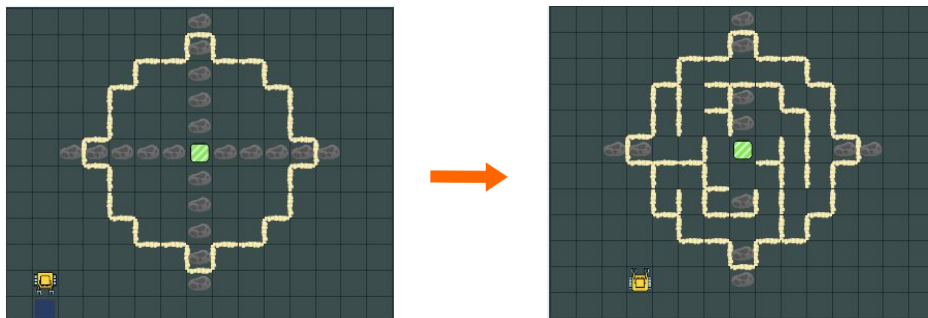


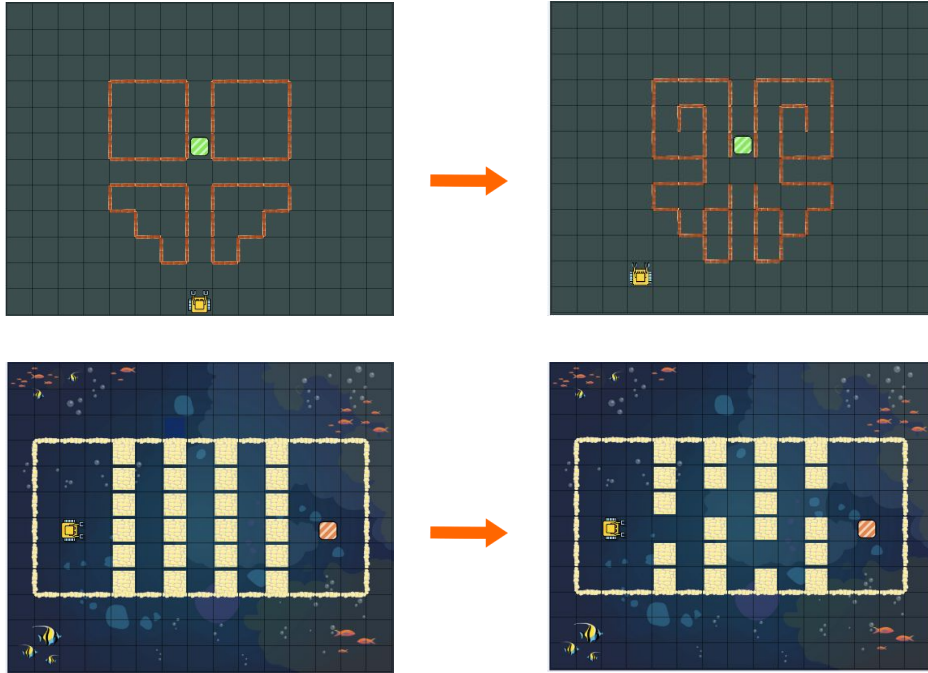
Source Wikipedia (WP:N FCC#4)

## Step 1: Build a Maze

To begin this project, build a **maze**. Start with a simple **shape**, then adjust the **Obstacles and Objects** until the **maze** is solvable.

Here are some examples:





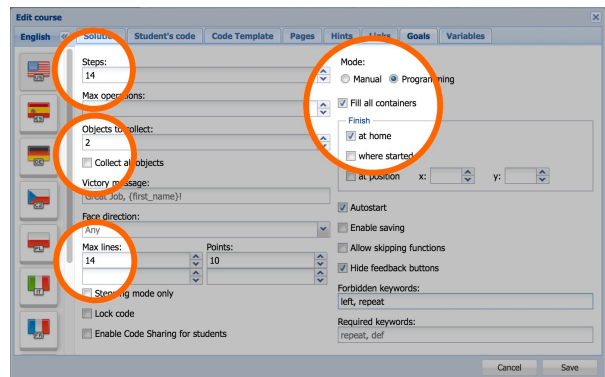
## Step 2: Balance and Refine Goals

Once you have a solvable **maze**, [Convert it to a Game](#), select [Edit game](#) and select [Goals](#).

To make your maze **more difficult**, you can:

- Set a step limit,
- Set Objects to collect,
- Set a line limit,
- Require [Fill containers](#),
- Forbid keywords,
- Require keywords.

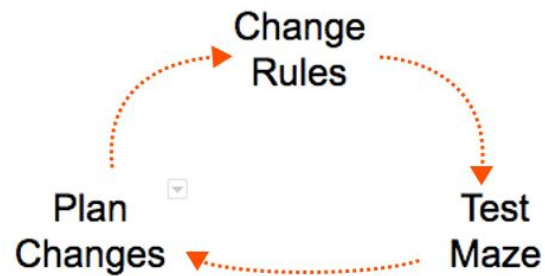
Click [Save](#) then select [Play](#).



You may find that your **maze** is **unsolvable** with the current rules. You may also find that your **maze** is **too easy**.

## Step 3: Test, Design, Repeat

To get your maze just right, change your rules, play your maze, and then plan any changes you want to make.



## Finishing Up

Once you are satisfied with your **maze**, you can share your **maze** by selecting **File**, then **Publish to the web**. Getting feedback from other players is crucial to designing a great maze.



# Project Checklist

Your project will be finished when:

1. Your game named **hard-fun** is saved in the folder **course-karel-projects/**.
2. You balanced **game goals** and **limitations**.
3. You made sure that the game is **solvable**.
4. Your file is published on the web.

**You get to decide how challenging you want your mazes to be.**