

# Karel Project #11

## DEF-INITELY

You can use **patterns** to persuade players to use **custom commands**. It makes for a fun **programming challenge**.

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

### Goal: Use Multiple Repeating Patterns

To create a maze that requires **multiple repeating patterns**, you will:

1. Create a **repeating pattern** with a corresponding **Object**.
2. Create a **second pattern** with a new **Object**.
3. **Test** your maze.

## Step 1: Create a Repeating Pattern

Start by adding an **Apple** to a blank maze. As always, choose a **Theme** you enjoy.



Now build a tunnel of **Walls** around the **Apple**. This is our **Apple Pattern**. This **Apple Pattern** was first introduced in [Project #10: Fruit Loops](#).



In another area of your **maze**, build the **Apple Pattern** again.



## Step 2: Create a **Second Pattern**

To complete your maze, add a **different pattern** with a different **Object**. Feel free to make more patterns. **Experiment** and try different patterns!



### Tips:

- You can require the keyword `def` in **Goals**.
- Set the **Mode** to **Programming** in **Goals**.

## Step 3: **Test Your Maze**

Test your maze using the **Play** button. Can you solve your maze by using two separate **if-statements** for your patterns? How would a solution work with the keyword `def`?



# Project Checklist

Your Project will be finished when:

1. Your maze has **multiple repeating patterns**.
2. Each pattern has a corresponding **Object**.
3. Your **maze** is solvable.