

Building a game

Lesson plan (part 1/4)

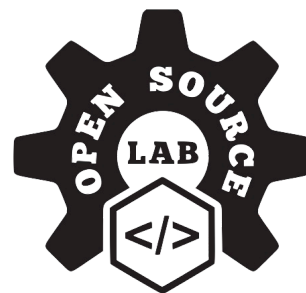
Created by Open Source Lab

Education level: From elementary school

Subject: STEAM, mathematics, computer science

Format: Individual or in groups

Duration: Approx. 1 hour



Introduction and lesson objectives:

In this 4-part lesson series, your students will learn how to build their own game with Delightex Edu and CoBlocks, starting with an introduction to movement.

Students will learn about the cartesian plane in this first lesson and add on it from other lessons. Students need a mastery and learned habits of the cartesian plane to be successful using the Project grid. APK (accessing prior knowledge) lessons can be done before diving into Delightex Edu and front loading with information should be done if it's a new skill or if it's for review.

It's also important that you as the teacher create and adapt your lessons according to the curriculum. For example, you could teach angles in math class when you're constructing the maze. Depending on what your grade and curriculum you need to cover, you could also figure out the volume or area of your maze, maybe even measure it and convert units of measurement. With one simple task, you can cover so much curriculum!

Learning goals and student benefits:

- Practice prototyping and testing
- Learn coding skills
- Learn movement skills in 3D
- Learn 3D creation skills

Activity preparation:

Get your students to either create a robot or use the robot created in Tinkercad ([lesson plan here](#)).

Then, ask your students to draw a maze on a sheet of paper ([example here](#)).

Extension idea:

- Once your students know how to move their robot, they can try to make them go around angle corners.
- Encourage your students to share their Project with their classmates and have them suggest alterations to their mazes or to their code.

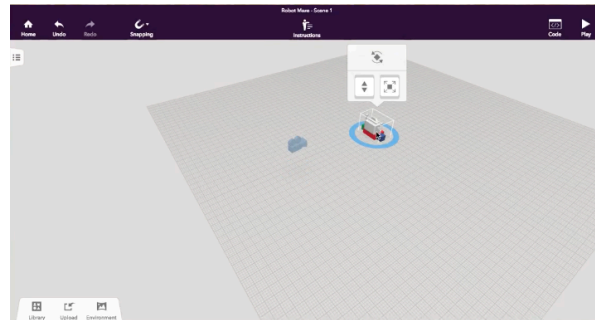
Assessment and evaluation suggestions:

- Have your students managed to follow the video tutorials?
- Did your students go through the creation process step by step?
- Have your students managed to code with CoBlocks?

Creation guide

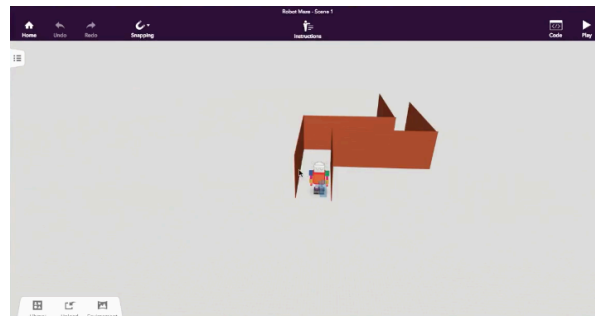
The video tutorial below will guide you through the creation process.

We recommend using headphones while watching these videos.



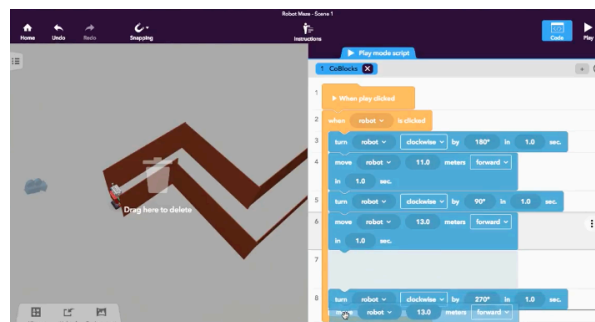
Video 1

youtu.be/u82not91Bbc



Video 2

youtu.be/tQhW-EzEIIU



Video 3

youtu.be/PwtSeHV9mqg

Example Project

This is an example of what your maze could start to look like.

Of course, you don't have to code your robot through the entire maze, but getting used to the movement CoBlocks are a good way to get comfortable with the environment.



Maze example