

# Lesson title / subject – v1:

MaFEA – Making Future Education Accessible  
PR3 - EDUCATIONAL LEARNING PATHS

Technology tools:	Lego Spike Prime
Tool version:	
Date:	3.11.2022
College:	Omnia, Finland
Author (optional):	
Subject of the lesson(s):	Using Lego Spike for advanced Python programming



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Lesson title/subject: ...

**Intention:** What do you wish for or hope to happen? (Intentions are often not measurable or tangible, but help you in developing the design process.)

1. Lesson will give the students a possibility to use Lego Spike for Python programming.
2. Hope that the students get enthusiastic and find passion for programming
3. Students find out how to make Lego Spike -robot to drive the shape of an equilateral triangle with side of one meter

**Desired Outcomes:** One or more measurable and tangible goals the teacher aims for with this lesson/these lessons.

1. Students will study the characteristics of equilateral triangle
2. Students will program the Lego Spike -robot to drive through a shape of an equilateral triangle

**Agenda:** HOW are you going to reach the goals? Description of the lesson plan / educational activities / working methods.

1. Teacher explains the subject of the lesson plan and gives the students task to study characteristics of equilateral triangle
2. Students will explain the characteristics of equilateral triangle to teacher
3. Students build a suitable robot
4. Students program the robot to drive through a shape of an equilateral triangle
5. Teacher is available for everybody who needs help

**Roles:** Who facilitates what? Who participates? What do we expect of the students?

1. Teacher -> instructs, leads the lesson, helps when needed, guides students towards better teamwork.
2. Students -> take part in the class activity, behave carefully with the equipment, participate in teamwork

**Rules:** Rules or principles are about how you want to learn and work together.

1. Students need to know basics of Python programming already
2. Students work in groups
3. Be careful with the equipments. Not to lose any parts and handling them carefully



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**Time:** Describe the time path: What time do we start / finish / break? When is the time for reflection? What happens between contact times?

1. (5 min) Start the lesson
2. (5 min) The teacher explains what today's lesson is going to look like.
3. (10 min) The students will be divided into pairs or bigger groups
4. (60 min) The students take part in the activity.
5. (20 min) Every pair introduce their robot in action and explains the code
6. (10 min) The group has a discussion about their experience. The group discusses what they learned.

Approximately +- 120 min.