# INTEGRATION OF EDUCATIONAL ROBOTICS TO SCIENTIFIC LEARNING TEACHING PROCESS

## Science e-Robot

### 2020-1-TR01-KA201-092601

Hello to the reader!

Welcome to the first digital newsletter of the Science e-Robot project. The general goal of this 24-month project is; To increase the quality of education by contributing to the integration of technology into the learning and teaching process in order to increase the level of acquisition of 21st century basic skills. You will find details about the project in the following sections. We wish you pleasant reading in advance.

SCIENCE e-ROBOT

## Our Focus!

" It is the relationship between core competencies and scientific literacy. "

## 1.PROJECT GOAL

To develop scientific literacy within the consortium by contributing to the development of basic competencies by integrating educational robotics technology into the scientific learning and teaching process.

## PROJECT OBJECTIVES

1. Developing an innovative science learning-teaching strategy compatible with the educational context of partner countries regarding the scientific learning-teaching process in which educational robotics is integrated for target groups by developing 3 intellectual outputs;

2. Increasing the knowledge and skills of 42 personnel from partner organizations on different teaching models, assessment and evaluation and robotic methods/techniques in interdisciplinary science teaching;

3. By organizing 5 large-scale multiplier events and other dissemination activities; developing the knowledge skills of at least 200 Science teachers, 50 pre-service teachers and 100 experts on the use of intellectual outputs developed under this partnership;

4. To develop the basic competence and scientific literacy of students aged 10-17 through educational robotics;

5. To develop long-term innovative cooperation between partners.

### IN THIS ISSUE

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TURKISH NATIONAL AGENCY

## 2. OUR MAIN ACTIVITIES

- 3 Transnational Project Meetings
- 2 LTTA Activities
- 3 Intellectual Output
- 5 Multiplier Events

## 3. OUR PROJECT MEETING (TPM-1)

In our first transnational project meeting, which we held online on 29-30 March 2021 under the moderation of our MEB ORGM partner; In addition to planning the work to be done in the first year of the project, we also discussed other issues related to project management.





## 4. OUR LTTA ACTIVITY

A total of 27 participants took part in our first LTTA event hosted by LICEUL NATIONAL DE INFORMATICA ARAD school in Arad, Romania on 04-08 October 2021. The content of the activity;

The importance of 21st century core competencies and skills,
In conjunction with other competencies, there was a special focus on:
* Mathematical proficiency and science and technology proficiency
* Digital competence
Relationship between 21st century skills and educational robotics; computational thinking
Algorithm and coding
Educational robots as a teaching material and its pedagogical aspect
Learning objectives that can be achieved with robotics
How to approach and develop 21st century skills in a targeted way with educational robotics?
It consisted of using robotic technology tools as a tool for student participation.

At the end of our 5-day LTTA activity titled "Robotic Learning Teaching Opportunities that Enrich Science Teaching and Acquisition of 21st Century Skills", the participants had a learning experience that took place in different learning models and environments. They observed different robotics projects at the university and started to mobilize their ideas on different interdisciplinary studies. Sharing the work of each partner organization with robotic materials allowed the transfer of experience and good practice. Beginning to develop a deep understanding of the relationship between robotics and key skills, the participants brainstormed how to bring this into their learning environment.
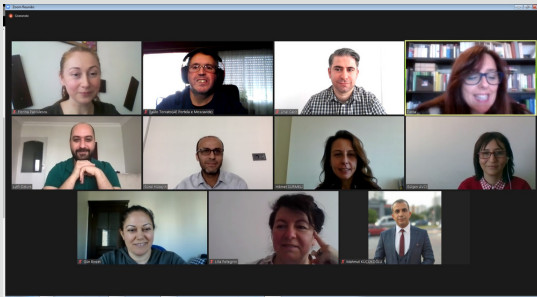






## 5. OUR INTELLECTUAL OUTPUTS



SCIENCE e-ROBOT

### 01

**E-WORKBOOK: SCIENTIFIC LEARNING TEACHING PROCESS DESIGN WITH EDUCATIONAL ROBOTIC PATTERN**

It includes innovative science activities with robotic content, which are adapted to various scientific themes and sub-topics in different modern teaching models and contain learning-teaching scenarios for individuals and will positively affect the attitude towards science.

### 02

**A METHODOLOGICAL GUIDE TO ADAPTING ROBOTIC ASSISTED SCIENCE TEACHING TO MODERN LEARNING TEACHING MODELS**

It will describe the application of robotic patterned science activities in various modern teaching models and provide guidance in the use of open educational resources.

### 03

**COMPREHENSIVE MEASUREMENT AND EVALUATION TOOLKIT**

Testing robotic assisted science learning activities; It will provide guidance on assessing their strengths and weaknesses.

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# 6. CONSORTIUM

Hadiye Kuradacı
Science and Art Center

T.R. MoNE Special Education and Guidance
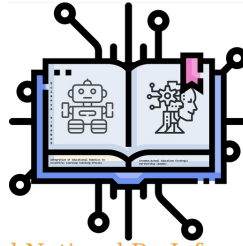General Directorate of Services

Mersin University

Agrupamento De Escolas De
Portela E Moscavide

Istituto Istruzione Scolastica Superiore
"Carlo Alberto Dalla Chiesa"

Liceul National De Informatica Arad

RobyCode UG

# 7. NEXT STEPS

The Point Reached →

**Completion of the First Intellectual Output**
November 2021
%40

**2nd.LTTA Activity**
January 2022
%45

**2nd.Transnational Project Meeting**
April 2022
%50

**2nd.Completion the Intellectual Output**
April 2022
%60

**3rd. Completion of the Intellectual Output**
May 2022
75%

**Multiplier Events**
June - October 2022
%80

**Closing Meeting**
November 2022
%90

**Closing the Project**
December 2022
100%

→ Impact of the Project

# 8. CONTACT US

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