



# Arduino SYS-STEM for Schools - SYS-STEM Newsletter

January 2022

## *C1 Training Event in Heraklion Crete*

Right before the end of October 2021 trainers from all the partner organisations gathered in Crete for the C1 training event of SYS-STEM. This training was originally planned to take place during the summer of 2020 but covid-19 pandemic had other plans.

Hellenic Mediterranean University hosted the event and offered its premises and infrastructure for the participants. During the 2 days course the trainers had the opportunity to test the SYS-STEM methodology and learn how to deliver it to students aged 14-18 years.

Additionally they tested the small scale Arduino projects developed by the partners and learned how to design their own projects in their own Arduino laboratories. Finally all partners were trained on how to access and use remote Arduino Laboratories using the **ArdLab Hub** developed by the project.



**ArdLab Hub allows the remote testing of STEM experiments from students and schools without Arduino or electronics lab infrastructure!**



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## **SYS-STEM COURSE**

### *Pilot testing by the partners*

Partners have started testing SYS-STEM Methodology with teachers and students. In total 50+ teachers and more than 300 students will participate in the pilot testing and use the materials developed by the partnership.

The pilot testing will last until the end of February and will be followed by correction and the final versions of all materials in 5 languages (English, Spanish, Portuguese, Greek and Croatian)

# SYS-STEM Methodology

The Arduino SYS-STEM for Schools Methodology is a package of specific materials and projects for students aged 14-18 in Arduino that includes a structured step-by-step training programme in electronics and programming development using Arduino.

Each Module includes all the necessary didactic planning tools and guidelines: learning outcomes that will be achieved, complete sets of materials and examples, simulations, sample exercises in Arduino for students, and solutions.

It contains 9 modules:

1. Introduction to STEM and SYS-STEM methodology
2. Arduino Basics – Basic devices
3. Digital inputs outputs and interruptions – Analog signals
4. First programs
5. Variables and expressions
6. Decision making and control functions
7. Liquid crystal display
8. Servo and continuous servo
9. DC motor

## *Next conferences & events (March – April 2022):*

- Bilbao, Spain
- Porto, Portugal
- Varazdin, Croatia
- Athens, Greece
- Heraklion, Greece

**We are  
almost  
there!!!**

SYS-STEM is completing its final tasks and is ready to present to the world all its amazing outputs.

Visit our website <https://sys-stem.eu> and join us in enabling schools around Europe to use virtually, state of the art STEM equipment for the first time completely for free, without the need of spending any money on equipment!