

**Expert meeting CIDREE – 13th & 14^h January 2020
Lyon – French Institute for education**

Robotics & STEAM education

The specific contribution of robotics to the learning and the teaching of STEAM

European education is more and more digitalized and is now turning towards “robotics” which opens the boundaries between digital and physical worlds and raises new possibilities and new challenges.

In this context, the aim of the CIDREE expert meeting is to contribute to the identification of possibilities and challenges of educational robotics at the European level, considering that STEAM is a relevant domain to tackle these questions.

The expert meeting will enable CIDREE members to see how “robotics” contributes to successful educational schemes in the domains of STEAM in the different participating countries.

We shall address different questions such as “Which domains of STEAM education could be supported and/or renewed by the introduction of robots in teaching and learning situations?” or “What kinds of national frameworks and strategies, teaching and training practices, pedagogical approaches regarding the introduction of robotics in education?”.

The goals of our meeting are:

- To map robotics' initiative in education across Europe, by identifying national frameworks and strategies, teaching-learning-training practices regarding the introduction of robotics in STEAM education
- To discuss the place of educational robotics in the current and future educational policies, especially STEAM but also other disciplines (languages...)
- To understand how the community of “educational robotics” professionals (decision-takers, educational actors -teachers, practitioners, pupils, industry-service providers...) are organized and contribute to the evolution of the STEAM education
- To focus and share effective approaches about robotics for STEAM education and to create collaboration opportunities among CIDREE members (collaborative projects and design of pedagogical resources).

The outcomes of this expert Meeting will be:

- ✓ The production of a review, which will outline national initiatives and the key features of educational processes related to the introduction of robotics in STEAM education in each attending country
- ✓ An outline of the challenges and successes in improving STEAM education through robotics
- ✓ A set of relevant examples to assist stakeholders in integrating robotics activities in STEAM education.

Program

Monday 13th January 2020 <i>Institut français de l'Education (IFE), 19 Allée de Fontenay, 69007 Lyon</i>	
08:45 – 9:15	Welcoming Coffee
09:15 – 10:00 <i>Room D8-003</i>	Opening Session <ul style="list-style-type: none">- Presentation of the French Institute of Education and of the CIDREE- Presentation of the participants- Overview of the program and goals
10:00 – 10:45	National policy and professional practices about Educational robotics and STEAM education in two countries <p>Presentation by a 1st country according to the following guidelines :</p> <ul style="list-style-type: none">- National framework and strategy regarding the introduction of robots in education and training policies- Key features of actors and stakeholders taking part to the development of educational robotics- Relevant examples of uses of robots for education and specifically for STEAM education- Consequences on professional training, teacher posture, pedagogical practices, classroom organization, curricula and acquisition of competencies (in particular 21st century competencies & skills)
10:45 – 11:00	Short break
11:00 – 12:00	National policy and professional practices about Educational robotics and STEAM education in two countries - 2 nd presentation followed by an open discussion
12:00 – 13:30	Lunch – ENS Buisson Site
13:30 – 15:00 <i>Room D8-216</i>	National policy and professional practices about Educational robotics and STEAM education in two countries - 3 rd & 4 th presentations
15:00 – 15:30	Coffee break
15:30 – 16:15	National policy and professional practices about Educational robotics and STEAM education in two countries - 5 th presentation
16:15 – 17:00	Discussion and first draft about : <ul style="list-style-type: none">- Why can we say that educational robotics is an asset for the development of STEAM education? Different countries point of view, in response to what stakes, how does it come into the current curricula & into the national education systems?- What are the main difficulties and brakes for its development?- What arguments, programs, projects, tools... can we propose or suggest to develop ?- What do we need to put in common? Exchanges of information and practices, study visits, research projects, etc.
19:30	Dinner



Tuesday 14th January 2020

Institut français de l'Éducation (IFE), 19 Allée de Fontenay, 69007 Lyon - Room D8-216

08:45 – 9:00	Welcoming Coffee
09:00 – 10:00 <i>Room D8-216</i>	National policy and professional practices about Educational robotics and STEAM education - 6 th presentation followed by a short open discussion
10:00 – 10:30	Presentation of Poppy station association A recent French initiative to promote Robotics for Education, Training, Research and Arts through an open data philosophy
10:30 – 10:45	Short break
10:45 – 12:00	Synthesis et perspectives Final discussion and Opportunities for further exchanges and collaborations among participating countries.
12:00 – 14:00	Lunch – ENS Buisson Site Altogether with a delegation of Poppy station association
14:00	End of the expert meeting

