If using space as a context to teach science and technology in school is already proving to be effective and engaging for students of all ages, adding robotics to the recipe is a truly winning way to continue inspiring them. With its new e-robotics lab, the European Space Agency’s (ESA) Education Office is now adding a new initiative to its portfolio of projects, and is ready to fully exploit the inspirational and educational value of space robotics for STEM (Science, Technology, Engineering and Mathematics) education in Europe. All European educational communities will be able to benefit from the e-robotics lab, either directly or through the synergy established by the project with other initiatives of ESA’s Education Programme, in particular with ESA’s European Space Education Resource Offices (ESEROs).
WHAT?
• a dedicated didactic laboratory primarily designed for primary and secondary school teachers - but also for students - that will allow direct hands-on experience of space robotics and the science that lies behind a space robotics mission;
• innovative teacher training sessions and teacher guides illustrating how to use space robots (built with LEGO educational resources and other hardware) when teaching STEM curricular subjects (physics, maths, programming, chemistry, technology);
• the coordination hub for all ESA space robotics competitions (e.g. Spheres - Zero Robotics, the ESA Space Robotics Challenge) addressing school students in Europe.

WHY?
• because research has shown the effectiveness of an educational approach that puts the student at the centre of an active journey of discovery that stimulates creative and critical thinking and triggers a deeper acquisition and understanding of STEM subjects.
• because active learning leads to better student performance and stimulates the development of soft skills, such as communication and teamwork.

HOW?
• by proposing a guided, hands-on educational experience.
• by adopting an inquiry-based teaching and learning methodology.

WHERE?
• at the ESA ground station located in Redu, Belgium.

WHEN?
• throughout the year, as will be announced by a calendar of activities that will published before the beginning of each school year.
• official start of activities: September/October 2015.

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