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# EXPERIENCE IN INTEGRATING ROBOTS DESIGNED FOR PLANETARY EXPLORATION AND AN ENVIRONMENT INITIALLY DESIGNED FOR COOPERATING ROBOTS ON PLANET EARTH

**Abstract**

Several functional, mobile platforms of planetary exploration types have been made in the past in our institute, as hands-on opportunities for our students to learn about space technologies. Another line of activities has related to mobile, cooperating robots, in international robotic competition frameworks. Out of necessity however, these initiatives have also triggered original contributions in research domain, as well as benefits also for the industrial context. Now the experience reported in this paper relates to some original crossfeeding. Without waiting for an hypothetic launch to planet Mars, the concept is here to bring closer and integrate solutions both for immediate tests on Earth, and design of later solutions for extraterrestrial contexts, with advantages notably in terms of interest, reactivity and synergies. A 10 motors, rocky bogie type of platform is controlled with best practice kind of controllers and is given many of the features, perception sensors and cognitive abilities of our proprietary Piaget programming and development environment ; due consideration is also given to current standards and technical possibilities for implementation in space environment.