SIM ROBOTS - NOW IN SPACE

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ROBOT NAME: M.E.T.
Summer 2005. These three people met for the first time on a BEST course in Sweden. They come from different countries, they have different needs, but they had the same goal, conquer MARS. That's why they used their brains and they decided to build a robot, which they called M.E.T. After two weeks of hard work they managed to finish M.E.T. and get it ready on time to send it to Mars and hopefully accomplish his mission with success. It was not easy job to do you know! They had to compete with other people who also used their brains for building their robots.

For our robot design we used LEGO MindStorms and RCX brick. It consists of 3 sensors of which two are touch sensors and the third one is a light sensor. The robot also consists of two motors which are moving the four wheels forward and backward and two bumpers which help the M.E.T. to orient in rocky areas or in dark caves. It is designed that way so it can investigate very rough ground. The light sensor is used for showing the direction of the robot, so it can follow specific track and can recognize whether it is on the main track or in a task that it has to accomplish. The bumpers are connected to the touch sensors with which the robot can orient in the rocky area without crashing. We attached to the bumper two types of wheels. The ones that are underneath the bumper will help the robot move small rocks and the ones that are above will help it fallow a wall.

For programming the robot we developed algorithms in NQC language which is compatible to our RCX brick. Our robot is moving under algorithmic control, so it can't get "smarter" during his life. It can recognize forks, so it is moving really smooth on the track. It can accomplish with certainty the plateau task and removing a rock from the path. We are not that sure about the others tasks.

After lending on Mars's surface, it should accomplish expected tasks, and it should be in contact with the space ship that will be situated in the Mars's gravitation field in which Mark, Eleni and Tatjana will work on the data send by the robot. We hope that we shall find out something more about the evolution of the planet Mars and maybe if there is water or Martians present.