The robot

The robot is made for the Student's Olympics which will take place in Washington DC this summer. Some parts of it made of recycled devices. The wheels can be as big as we want to and the engine has an overall goal, the product of Arduino controls the system, it controls he engine, too. It has analogical and digital electrical plugs. Since we don't know what the exercise will be in the Student's Olympics, this robot is for practicing. Mainly we've made this robot to be able to orient itself by following a line. It has GPS, Bluetooth, infra-red and odometer sensors. We made two chassis to which we fixed all components with M3 bolts. This robot is environmentally friendly, because it only works with electric engine. Providing it with power is the most difficult task. We used for it industrial batteries which have a power of Volt in the number of 3,7. These batteries are produced by Samsung and these types of batteries are used in hybrid technology in cars.

As for the parts of the robots: the wheels are driven by four independent electric motors, which is the technology of the modern electric cars. When the robots turn then one side of it propels the vehicle forwards while the other side backwards. So, in this way it can take a 180^{o} curve. The hardware is controlled by the Arduino panel that is written in 'C' language. At first we put 2 infra-red line sensors o the button of the vehicle in a distance f 1-2 cm, hat observe two states: white or black (black is not a color). With these two sensors the robot "danced", so following the line was insecure for it. That's why we put another sensor into the geometric mean of the other two sensors. This made its movements stable and its programming became more complex. The three line sensors are located in the centroid of the machine, so it always keeps it balance. This centroid is really is really low, it almost touches the ground. In this way the robot can keeps its positive properties even at a fast speed with an elementary landing-gear, too. There isn't any telescopes nor vibrating arm that would help in angling.

The aim is to go round the inscription, Erasmus with this robot.