



SAMPLE OF A COMPLETE PROJECT ON ROBOTICS

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Lab.

Robotica_la bottega dei robot

Title of the project

What a brain!?!?

School level

Second year of secondary school.

Objectives

Test a new educational approach, involving students actively, stimulating observation, initiative, cooperation, manual abilities. The project will highlight the connection and interaction between practical and theoretical knowledge.

End product

Doll simulating human gestures and movements (Ex. Waving the hand, turning the head when called, etc.)

Process

Phase n. 1	<u>teacher</u> In class during science lessons: - Builds conceptual map on brain. - Starting from what is already known by students, guides them in the discovery of the human control system: the nervous system.	<u>students</u> - Participate actively. - Draw the conceptual map and a scheme of the nervous system on posters. - Study the contents.
Phase n. 2: (content)	- Proposes the making of a "model of a nervous/control system": how can we do it? What could we use? The content of the kits! - Collaborates with students in the building of the doll. - Learns to use the software to help students.	- The class visits the Museum: experiments the use of sensors and works out how to obtain certain movements. - Search for the analogies between the two systems and schematize them. - Decide which movements will be created. - Design the doll. - Show their results to students of another class.

Evaluation

The participation of single students will be evaluated through their contribution during the various phases of the project.

Materials

Easy to find materials for the building of the doll (polystyrene, fabric, colours, paper, etc)