

Robotika, “The Nannybot”



Description

The project of Robotika is a female robot, a “cyber nana” that interacts with a child.

Robotika, “The Nannybot”, is a robot with artificial intelligence that not only responds to its original program, but also learns from its own mistakes, and is able to take decisions from her own artificial intelligence.

Robotika’s functions allow her to take care of a child, taking into account his necessities and vital needs, and provides protection from the environment.

During Robotika’s interaction she bears a human baby in her lap. The baby is laid in a cradle, similar to the ones used for any child, which means that the baby won’t be in any danger.

Robotika is a robot in a sitting position, which is able to move its head and eyes in different ways, and make its lap move and vibrate. It is programmed to be watching the child constantly, and control the environment. If it detects a presence of someone else, it will respond in different ways: if it is one of the child's parents, Robotika will blink softly, if it is someone unknown, she will look in an intimidating way.

An exhibition will take place in which the material of the performance will be reproduced. At the same time there'll be an interactive artistic installation in which the human baby will be replaced by a doll that can be operated by the public. Robotika's sensors will determine the child's situation. If the baby cries, Robotika will try to calm him with soft moves, vibrations and songs. If she can't calm him, she'll call her biological mother.

During the installation, Robotika and the baby will be able to interact with the public, but they won't be able to get close to the robot without being noticed by the Nany Robot.

Robotika's objective is to be the biological mother's eyes and actions. In her eyes there are web cameras that will be transmitting images to Internet where the public will be able to see the child's environment.

Objectives

First Instance

- 1) Develop in the course of one year a robot with artificial intelligence that is able to relation with a real baby human.
- 2) Develop a Web site through which the public will be able to interact with the robot.
- 3) Produce with these elements an artistic work that will be exhibited as a performance, an installation, and a web page.

Technical Information

Robotika is a robot that can be programmed in its basic functions, and can be programmed to be able to learn, based on artificial intelligence.

Movements

Robotika is sitting. Her head and eyes are able to move, for which it is equipped with a set of servomotors. Three of these are for the moves of the heads and six for the eyes, the upper eyelid and the eyebrow.

The arms and lap are able to move slowly and softly, with a soft vibration to calm down and nurse the baby.

The robot can remember in its memory and reproduce the mother's voice and favorite songs.

Sensors for the child: movement, temperature, humidity, etc.

External sensors: Web cameras.

Environmental sensors: temperature, UV radiation, and air pollution.

WiFi cameras with IP direction that allow sending information to Internet, and a GSM system that allows the robot to communicate with the public and with the mother.

The processing of the information, the data from the sensors, will be taken care by the microprocessors and a computer.

Expected results

With this Project it is expected to generate discussion and controversy in the subject about men and its relation with technology, men and the machines.

It is also expected to install the question about the possibility of machines taking care of actions that are so human, as it is the upbringing of a child.

Can a Ciber Nany be as efficient as a selfless mother? Looking into the future, does the future gives us any guarantee of the continuity of the human civilization?

Can a robot conceive human life?