The classification of objects by color is a necessary activity in some industries such as the toy industry. Therefore, a robot is a useful tool to perform this task. Although there are robots to do this commercially, this would be an economic version, built using the Mind kit Lego storm, for small businesses. The robot searches a specific area for objects then places it in the right place based on the color.

This project consists of two stages: The first stage includes physical robot assembly which involves the analysis of the sensors required for robot tasks and the way the motors manipulate the pieces to make the objects. The second phase is for programming phase to define its behavior. This robot will be useful as a tool to help people streamline their organizational tasks.

According to some workers of jewelry stores and office workers color sorting is one of the most tedious assignments. They get people (mostly young) to do this job but still is not enough.

A robot is a machine with sensors and motors controlled by a computer

The lego Minstomp is a toolkit for building robots. It has ultrasonic, touch, sound and light sensors. Additionally, it has three servomotors and the classic Lego brick pieces.

The behavior is defined by a computer program. Complex behavior are based on simple instruction blocks.

Design: After an extensive analysis, the physical is based on color sorter, designed by Lego. The behavior is defined by a program designed by us.

Software design: We followed the waterfall cycle for software design. Analysis, design, implementation, testing and implantation.

REFERENCES