



Uporaba didaktičnega kompleta Lego MindStorms (Robotics Invention System)

The use of didactic set of Lego MindStorms (Robotics Invention System)

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Povzetek

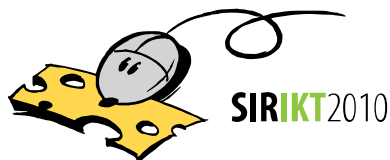
Didaktični komplet lego kock Lego MindStorms (Robotics Invention System) je pomanjšana verzija osnov robotskih sistemov, ki jih v današnjem času vedno več uporabljamo tako v industriji kot tudi v zasebnem življenju. Namenjen je ljudem z domišljijo, ki želijo spoznati osnove robotike.

Lego kocke so nastale po drugi svetovni vojni. Seveda so imele takrat drugačen namen. Z leti so se razvijale in prilagajale industrijskim spremembam, v zadnjih desetih letih pa so doživele pravi razcvet zaradi razvoja industrije, avtomatike in interneta. Še pred desetimi leti si ne bi mogli predstavljati, da bi lahko robot, sestavljen iz lego kock, opravljal določeno nalogo. Lego Mindstorms so kocke oz. preprosti roboti, ki so namenjene otrokom. Omogočajo vstop v svet mehatronike (elektrotehnike, strojništva in računalništva). Seveda se lahko svojih spretnosti pri sestavljanju robotov naučijo tudi mlajši uporabnik kompleta Mindstorms ob pomoči starejših oseb. Didaktični komplet je zanimiv za vrtce, osnovne šole, srednje šole, saj se lahko uporablja pri kreativnem pouku. Komplete pa uporabljajo tudi univerze po svetu za resne projekte.

Prispevek predstavlja primere kreativne uporabe didaktičnega kompleta Lego MindStorms na nezahtevni ravni za posredovanje znanja pri naravoslovnih, družboslovnih in tehničnih predmetih.

Abstract

The didactic Lego MindStorms set (Robotics Invention System) is a shortened version of the bases of robotic systems, which have been used more and more not only in industry but also in private life. It is intended for people with imagination who are eager to acquire the bases of the robotics.



Lego bricks came into the world after the Second World War. At that time they had a completely different purpose. Throughout the years they have been developing and adjusting to the industrial changes. They have experienced a real boom in the last ten years due to the development of industry, automatics and Internet. Only ten years ago one could not imagine that a robot, composed of lego bricks, could perform a task at all. Lego Mindstorms are bricks – simple robots designed for children. They enable us to enter the world of mechatronics (electrotechnics, mechanical engineering and computing). Accompanied by a grown-up person, young users can acquire their skills of composing a robot with the set of Mindstorms. The didactic set could be interesting for nursery schools, elementary schools as well as secondary schools, especially within creative lessons. The sets are used by universities throughout the world in order to carry out serious projects.

The following article represents different examples of the creative use of the Lego Mindstorms set on a rather uncomplicated level in order to interpose knowledge within the natural science, sociology and technical subjects.