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Handy Hand – Power at Your Fingertips

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Abstract. The paper presents the **Handy Hand** System, designed by a team of students from Poznań University of Technology for the IEEE CSIDC'2005. It consists of a **Handy Hand** device and a number of other small devices (called **pins**) that communicate with each other on a radio frequency (RF). This distributed system of pins forms a kind of abstraction layer over a variety of devices, providing a uniform way of controlling them. Pins of the first type, **Executive Pins**, manipulate the device according to user's commands and inform the other **Executive Pins** about its current state, which enables them to react appropriately according to user-defined rules. The other type of pin, **Indication Pin**, waits for being spotted by an infra-red beam coming from the **Handy Hand**. The **Administration Center** allows registering other system components, performing system setup, granting permissions, defining rules for the **Event-Driven Architecture**, as well as providing external access to the system.

Key words: control systems, infra-red control devices, ISM radio transmission, distributed systems