

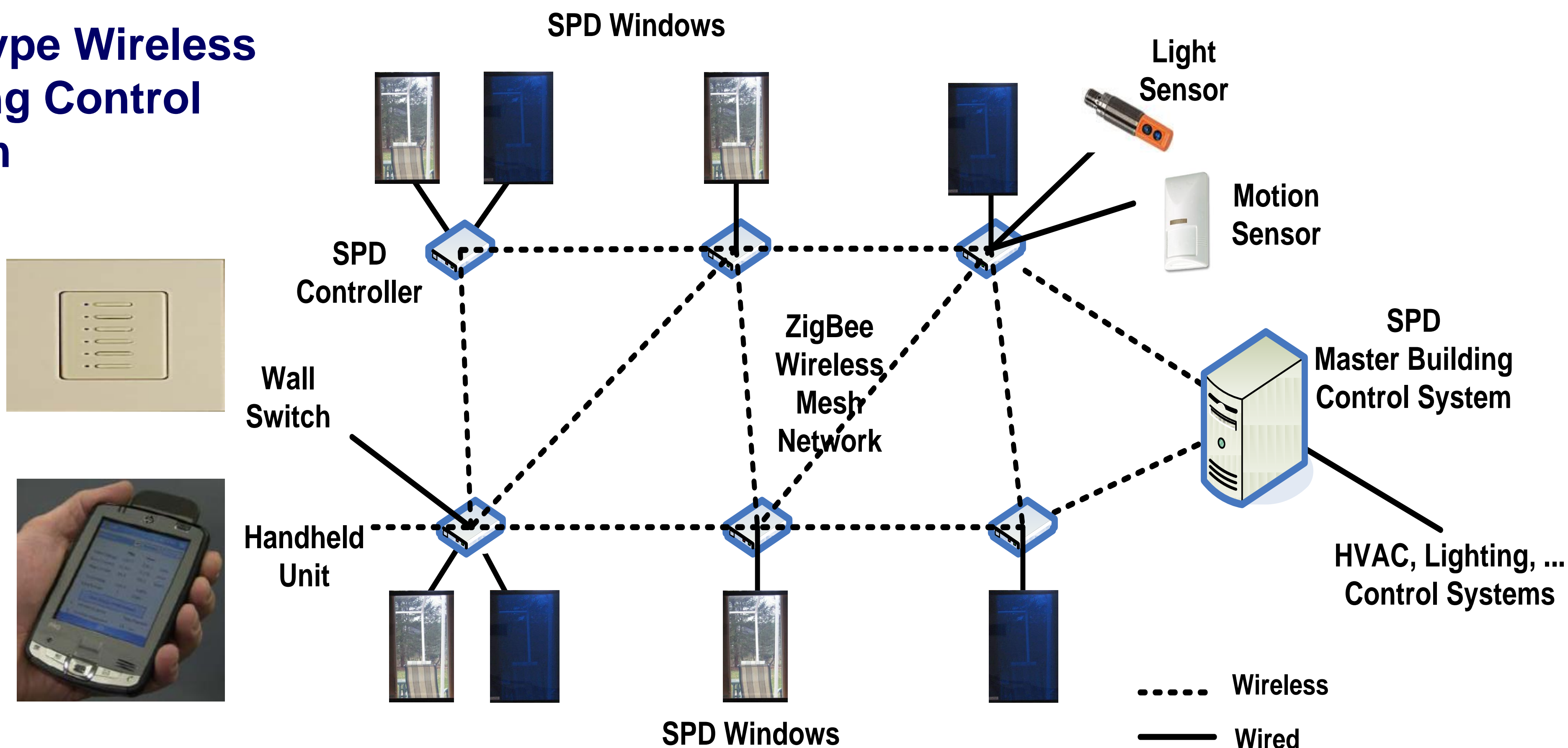
SPD Control Systems Corporation



SPD Smart Glass Wireless Building Control System

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Prototype Wireless Building Control System



Project Goal

This NYSERDA funded project is to develop, demonstrate and report on a building control system for dynamically controlling the electronically variable tinting of Suspended Particle Device (SPD) Smart Glass windows. The system consists of SPD Window Controllers with switches, light sensor & motion sensors, an SPD Master Building Control System, wireless handheld units to manually override dynamic operations and a wireless ZigBee mesh network to interconnect all components.

This intelligent control system is used to **dynamically manage Solar Heat Gain** through windows in buildings throughout the day, 365 days a year, and dependent upon geographic location, so as to reduce the energy requirements of HVAC and Lighting systems in the building. As much as 20% of the energy costs of a building can be saved through Smart Glass and this control system.

SPD Smart Glass

A Suspended Particle Device window is a revolutionary product featuring electrically controlled window tinting film. The technology behind SPD Smart Glass has significant benefits over preceding glass tinting technologies, such as its unparalleled ability to rapidly and **precisely change to a desired transparency (clear through dark) within 1 to 2 seconds** regardless of the window size, its ability to be placed on or within both plastic and glass, its ability to be applied to curved surfaces, its wider range of operating temperatures, and its lower cost of manufacture.

