Remotely Controlled Hydroponic System by Solar Energy (RCHSSE)

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Hydroponic, which is a new kind of agriculture that only depends on a fertilizer solution to provide plants with the required nutrients without the need for soil, has been widely used recently. Although the several advantages of such type of agriculture such as reducing water consumption and overcoming the lake of a fertile soil, it requires fully automated systems to give the plants the required amount of minerals at the desired time, making it relatively more expensive. A lot of systems have been built to control large scale hydroponic systems, but very few attempts has been reported for small- scale cheap one. However, to my knowledge no small scale hydroponic systems with an application that enables the house owner to remotely control his/her hydroponic garden exists. In this system an application was developed which enabled the owner to monitor plant growth in his/her hydroponic garden through his/her mobile phone through several sensors for humidity, water level, minerals concentration, temperature, and a camera.

Awards Won:

Qatar Foundation, Research &amp Development: Award of $1,000