Hydrauto: A Novel Self-Monitoring Homes and Commercials Water Reusable System Purification

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Water is a vital source for humanity, such important compound should not be wasted but finding a way to purify used water within our homes could helped preventing water shortage a much more global issue. According to Dankovich and Gray, and world Health Organization, More than one billion people worldwide have no access to clean drinking water and the greatest of water-borne threats being from bacterial diseases such as cholera and gastroenteritis (1). To prevent this problem from becoming a global issue, a self-monitoring reusable homes and commercial water purifier was developed and studied to use in different aspects and fit to customize as needed in different part of the world. The device is equipped with a sensor and capability to control the amount of water pumps per minute, the completion of purifier water, and the percentage of wasted water. After successfully engineering the device, the system was tested and analyzed using several filtration systems such as: the purifier, the water softener, the CO2 water softener, the reverse osmosis units and the recover all system. As the result, the recover all system gave a greater percentage of purified water at approximately 99% of the used water.

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