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Taiwan Invention Products Promotion Association

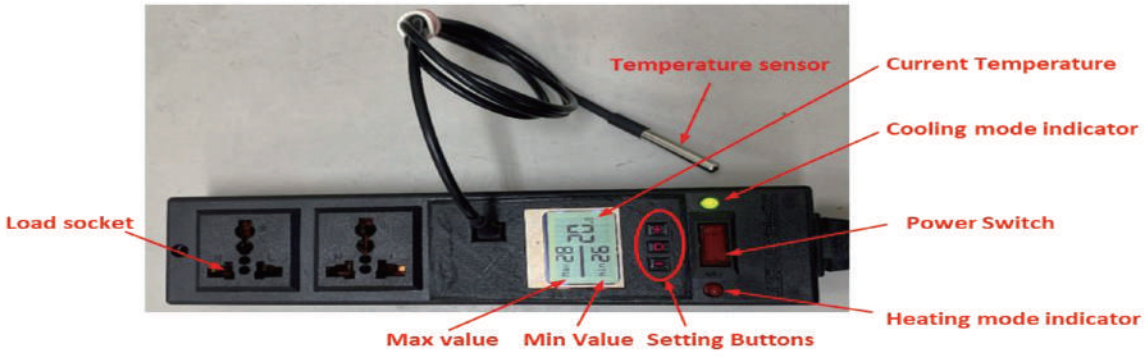
正修科技大學
CHENG SHIU UNIVERSITY

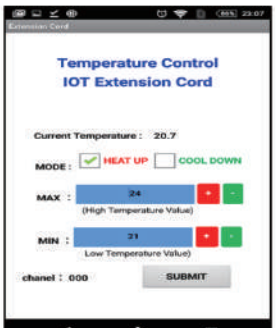
An Expandable Modular Internet of Things (IoT)-Based Temperature Control Power Extender

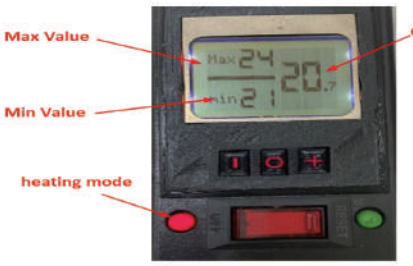
PRODUCT TO INTRODUCE

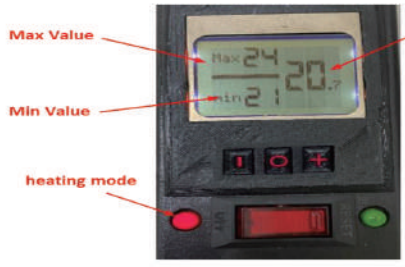
This article proposes a novel Internet of Things (IoT)-based temperature control power extender with two working modes of cooling and heating to solve power shortage. The power is turned on or off accurately and timely through the temperature sensing element, thereby avoiding unnecessary power consumption to achieve the purpose of energy-saving This work can directly power on or off the power extender through the Internet. It can also use a 2.4G Wi-Fi wireless transmission to transmit real-time temperature information, switch status and master-slave mode, etc. Related data can be controlled, collected, and uploaded to the cloud.

Each proposed power extender's temperature setting in a large-scale field can be set uniformly, and no staffing is wasted to set the temperature separately. Taking a general industrial electric fan as an example, if it is changed to this temperature control extension cable to drive, and assuming that the industrial electric fan is activated for 900 seconds per hour, its power-saving rate is 74.75%.









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