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IoT-Based Smart Clothesline Cover

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STUDENT DECLARATION

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with the standard referring practices of the discipline.

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ABSTRACT

Clothes is a basic need of human and it need to be clean and hygiene. The laundry is an important things to do but the force of nature sometimes can be unpredictable. After doing a laundry the clothes need to be dry on clothesline. The unpredictable weather can make people worried especially when there is no one that can attend the laundry. This can be hard especially for student and working people. People tend to use an automated clothesline, goes to laundry shop or make a roof top at the clothesline. Currently, most of previous automated clothesline are expensive and complicated to be implemented. This research invented an affordable prototype of IoT-based clotheslines cover. The cover can be open and the status of the clothesline can be updated in real-time using Telegram. The main board of the prototype is ESP32. The rain sensor and Light Dependent Resistor (LDR) is use to detect the weather condition. The functionality test was conducted to test the rain sensor and LDR to measure the sensitivity. The result shows that the rain sensor was very sensitive. It can detect 0.1ml of water drop. Usability test that been conduct to see the overall impression of the respondent, 56.7% respondent scale the prototype as very good and other 43.3% scale as good. The recommendation future work for this prototype is to control it using a user friendly mobile apps instead of typing the command on the Telegram to open and checking the status of the clothesline.

Keywords: Clothesline, Rain, Laundry, ESP32, Rain sensor, Light Dependent Resistor (LDR), Telegram.

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