

PillWise Medication System: An IoT Treatment Automizer with Adherence Analyzer

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Introduction

Medication adherence remains a significant challenge in healthcare despite medical advancements. Traditional methods relying on human effort are inefficient and prone to errors. The shift towards single-unit doses and increased need for touchless interactions due to COVID-19 highlights the limitations of current smart devices. Integrating automated medication dispensers with electronic health record systems could enhance adherence by accommodating newer medication forms, reducing contact, and improving overall treatment compliance.

Conclusions

The PillWise and AquaWise systems automate medication intake, accurately dispensing pills and providing water for consumption. Their user-friendly app offers feedback on adherence. Cost-effective and simple to produce, they boast scalability and ease of use, potentially enhancing patient adherence. However, real patient testing was limited, and some aspects need refinement, like incorporating RGB lights for improved feedback. Future efforts should focus on enhancing functionality and conducting comprehensive real-world testing.

Method

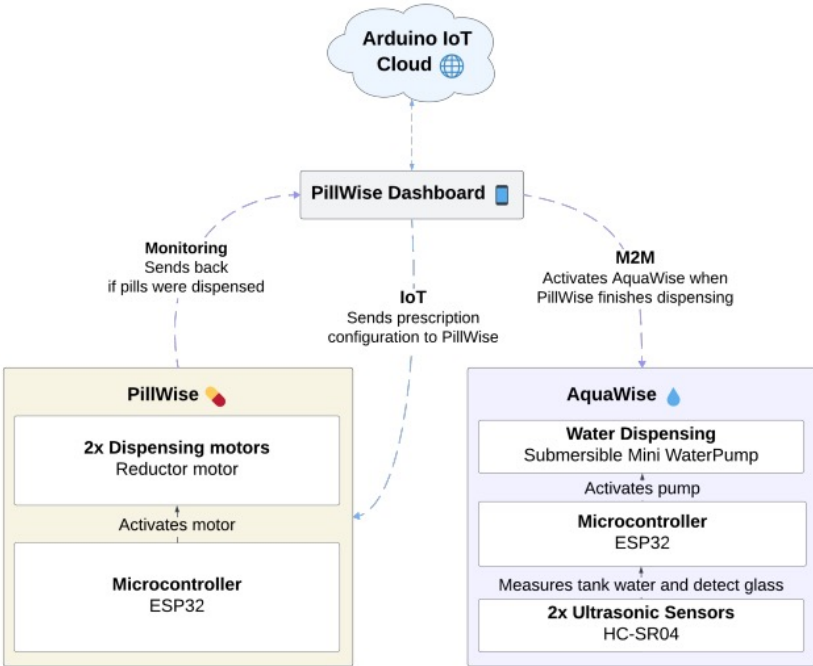


Fig. 1: Iot Architecture

Results

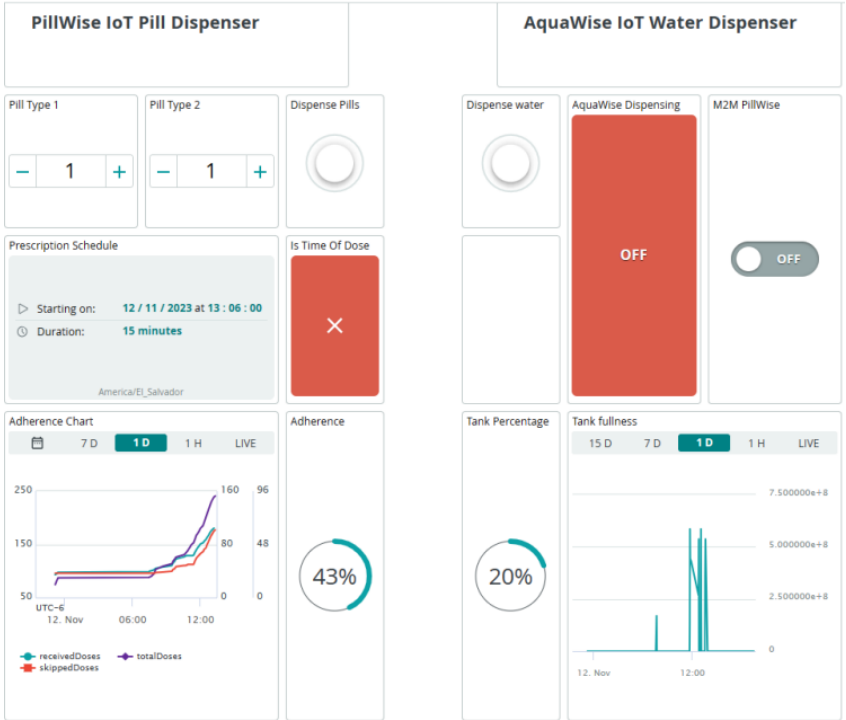


Fig. 2: Iot Dashboard

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Conflict of interest: none