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Conclusions

Achievements

Discuss here what was achieved (wrt the initial objectives) and what is missing (wrt the initial objectives) of the project.

Limitations

Identify here the limitations of the solution and prototype.

Future Development

Provide here your recommendations for future work.

Future development of the TRAQUA system could follow two main directions. One option is to simplify the design and reduce production costs, enabling affordable product tiers with different levels of smart functionality. Alternatively, the system could be enhanced with premium features such as an integrated display or solar energy harvesting to extend battery life.

On the software side, the mobile application could incorporate gamification and advanced health analytics to provide personalized hydration recommendations. The product range could also expand to include multiple bottle sizes or larger purification units for home use. Regardless of the chosen direction, future work should focus on extensive testing to verify the long-term germicidal effectiveness and self-cleaning performance of the UV-C system under everyday operating conditions. Furthermore, personalized recommendations could be refined through more sophisticated user profiling and health-data analysis, allowing the system to better adapt to individual needs. Such functionality could be particularly beneficial for people with medical conditions where proper hydration plays a critical role, supporting improved daily health management and adherence to recommended fluid intake levels.