Low-energy backup communication system for hydrogen racecar

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Abstract

The abstract is a brief (50–80 words) synopsis of the paper. Use up to 5 keywords.

Keywords—component; formatting; style; styling; insert (key words)

I. Introduction

II. Firmware Design and Implementation

In this section, we present the design and implementation of the firmware for the STM32U5, which enables two-way raw LoRa communication, real time speech syntesis,

A. System Overview

[Describe the overall system architecture. Mention hardware components, communication methods, and high-level software structure. Include a figure if possible.]

B. Firmware Design

[Describe the structure of the firmware. Mention FreeRTOS (if used), key modules/tasks, inter-process communication, power handling, interrupt strategies, etc.]

C. Testing and Results

[Discuss how you verified the system. Include relevant metrics: timing, memory usage, communication robustness, etc. Optionally describe test setups.]

D. Conclusion

[Summarize what you built, how well it works, and potential areas for improvement or future work.]

III. Backend and graphical user interface Design and Implementation

IV. Hardware Design and Implementation

References

[1] Author Name, *Title of the Book or Article*, Publisher or Journal, Year.