Arduino Scoreboard Using Algorithms

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*Abstract*—This paper presents the design and implementation of an Arduino-based scoreboard updating system that integrates dynamic programming, recursive functions, and greedy algorithms to optimize real-time score tracking and updates.

# Introduction

The development of efficient and responsive scoreboard systems is essential in various competitive sports, gaming events, and other real-time scenarios. As the demand for automated, real-time updates in such environments increases, it becomes crucial to leverage advanced computational techniques to manage and optimize the updating process. One promising approach is the combination of dynamic programming, recursive functions, and greedy algorithms. This paper explores the design and implementation of a scoreboard updating system built using an Arduino microcontroller, demonstrating how these computational paradigms can be integrated to deliver an efficient and responsive solution.

# Literature Review

## A path to understanding the effects of algorithm awareness

The rise in prevalence of algorithmically curated feeds in online news and social media sites raises a new question for designers, critics, and scholars of media: how aware are users of the role of algorithms and filters in their news sources? This source situates this problem within the history of design for interaction, with an emphasis on the contemporary challenges of studying, and designing for, the algorithmic "curation" of feeds. I want to implement something similar to such algorithms used in feed curation that goes unnoticed in normal peoples lives but in my case with a simple scoreboard system to see if there is any difference in performance.

## REMOTE CONTROLLED EMBEDDED SYSTEM BASED SCOREBOARD DESIGN WITH MOBILE PROGRAM

This paper is about a scoreboard system that was created and controlled by embedded systems, which is the standard at our current time. I want to create a scoreboard system that uses similar concepts to this but with algorithms in hopes that it would improve performance.

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##### References

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