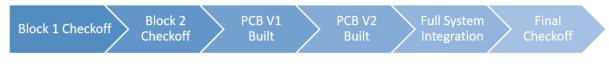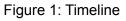# Executive Summary

Hyster-Yale, a forklift company, uses CAN loggers to collect diagnostics on their vehicles. These data loggers cost upward of a thousand dollars per unit, and corresponding software licenses can also cost over a thousand dollars. Hyster-Yale are looking for a more affordable solution with the same capabilities.

When designing the project, we modularized each step so that we could divide work as efficiently as possible. For instance, we structured the firmware as a two-part system so that two people could simultaneously work on it without interference. Even though most blocks allowed for this kind of parallelization, we still delegated responsibility for each block to a single team member. This ensured that no block would be left behind. The added flexibility allowed us to adapt to unexpected challenges and make multiple design revisions.

Figure 1: Timeline

Our project, despite being proven successful, came with its own set of challenges that left us with some key takeaways. We learned that project management helps each team member fully communicate their progress, problems, and solutions. Another lesson was that when looking at reference designs, it is important to fully understand them and the reasons behind their design choices. Lastly, we learned that full communication with our customer greatly streamlines our design and editing process.