

---

# **Challenges and Excellences**

**for**

# **Hug the Rail IoT**

**Version 1.0**

**Prepared by Christian Szablewski-Paz**

**Stevens Institute of Technology**

**May 11, 2021**

Throughout the development process for the Hug the Rail IoT, there were definitely some challenges that we faced which we could have dealt with a little bit differently. One major challenge we faced was that we made our graphic diagrams each on the same google doc, and for every diagram we would just modify the basic template diagram we created, resulting in only jpg images of each diagram being saved instead of actual separate, modifiable files for each diagram. This resulted in us having to do much more work when we needed to make changes to each diagram; if we had just made a separate file for each instead of building each in the same file on the same template, modifying these diagrams would have taken significantly less time. Another major challenge we faced was through the use of a google doc for the main document, it was hard to have accountability for each other's work due to not having visible contributions in commit messages on gitlab. The general paradigm our team followed was making a new version of the document every time a new part of it got assigned, and we would have one main team member (Grace) send commits to the repository. Although you can go back and look through the version history on google docs, it is a lot less intuitive than just looking through commits on gitlab. What our team did really well, however, was that we maintained good communication throughout the process, and held regular meetings accompanied by team review sessions for each part of the project to ensure everything we had on our project was accurate and up to date. When changes were made in a later section, we made sure to update all of the other sections accordingly. Another aspect of this project that went very well was meeting and setting deadlines and goals. Also, when a certain team member needed help meeting their deadlines, another team member always accommodated that person so that our team still met the deadline. Overall, this project was a success for our team, but there were still some things that we could have done to make our modifications easier in the later stages of development.