| **PROJECT CHARTER** | | |
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| **Project Name** | Intelligrain | |
| **Date Produced** | 10/10/2023 | |
| **Project Goals** | Create a solution for farmers to gain a better understanding of their crops through real-time visuals and analytics | |
| **Project Objectives** | This project will consist of an application that displays a gradient map based on the quality of grain in real-time during harvest. | |
| **Project Budget** | No funds available | |
| **Project Sponsor** | Ground Truth Agriculture | |
| **Project Manager** | Dillan Zurowski & Brandon Hillbom - Software Developers | |
| **Additional Key Project Stakeholders** | | |
| Farmers - Northstar customer/primary user  Ground Truth Agriculture - Secondary customer/owner of the project  Tim Maciag/Trevor Douglas - Project advisors | | |
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| **Overall Project Milestones** | | **Dates** |
| [A list of the key milestones that are known at this point in the project] - after jira breakdown | | [Milestone dates] |
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| **Overall Project Risks** | | |
| * Project duration * Licencing costs/limitation for third party APIs * Lots of data with potentially low bandwidth to get it: performance must be of high consideration * Data quality/accuracy: Accuracy of the data from the ML computer vision and infrared spectrometer along with the coordinates taken at the time of sampling is crucial. We must consider where the Jetson Nano device is placed on the combine and how big the combine is to make more exact approximations. * Failed user acceptance testing where farmers don’t want to use another app on top of other apps. It may not provide enough value. * Integration challenges: We will be unable to test the app in its truest form (during harvest), so we will need to simulate the environment. We will also face potential challenges relating to seamless data transmission. * Potential compatibility issues (Android and IOS) * Scalability is essential. * Historical Data Analysis: Implementing advanced features like historical data analysis and path planning based on past grades may require complex algorithms and could pose challenges in terms of development and accuracy. | | |