

Problem Statement

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The problem with many people concerning their storage of their food in their refrigerator is the wastefulness and under consumption. People end up throwing out unused and expired food in great quantity. People often forget what they have in their refrigerator because many scenarios. For example, food in the back of the fridge goes unseen and is forgotten leading to expiration and eventually waste. Even if the food is seen, many people cannot keep track of the expiration dates on their food because it's unfeasible to do manually. Even if the food is technically edible, some consumers might throw it out anyways due to the long period it has been in the fridge. Some of the functional requirements include automatically tracking expirations, cataloging all food in the fridge, ease of access and accurate recording of food and products in the fridge to the user. As well as an easy to use interface to display the data to the users. The software would include some sort of alarm system that alert the user when a certain food has or will expire. It should have the ability to recognize many instances of different food products without manual entry. It should have an option to manual enter food products along with their expiration date or date best used by. It should also be able to customizable to the user depending on their preferences such as font size and color. It should report in a timely and convenient manner. For instances, it shouldn't alarm the user at 2 am if their milk expires. The software should be programmed on a non-proprietary console so it can be integrated with many refrigerator companies. It should be energy efficient and touch and voice enable. It should have handicap options.

The initial step in development is to start meeting with clients and or customers to verify that we have the correct specifications. Because most of the software is built on existing functionalities, the major milestone is the recognition software. Once we have developed software for dynamically cataloging foods, products and miscellaneous, the next major milestones will be integration of that software into a refrigerator environment, development of the software to keep track of and alarm the user, then the user interface and finally complete integration of all those modules. We would need to test the fridge in many different environments including all diverse means of personal living, communal living including workplaces and public spaces and other environment containing industrial size fridges. If our fridge software is easily useable to the target users and compatible with multiple refrigerators then it's is acceptable.