1. PURPOSE

The purpose of this project is to provide analytics based on the data gathered from the virtual walls of the robot (Roomba) to be able to dispense finer resource allocation and financial investments for the company.

2. AUTHORITY RESPONSIBLE

The Authority responsible for accessing this virtual wall data is the Data Science Team at iRobot who can both access and process this data and further provide it to the Enterprise IT team to perform analytics on the processed data. The Accounting and Finance team will have the authority to sanction the cost usage for this project, while the CIO along with the project manager will have the power to authorize the needed resource usage.

3. BACKGROUND

This project is a part of a larger program which enables the company to gain beneficial insights from the data collected from the robot’s virtual wall to provide efficient analytical power and help in the better allocation of resources. This virtual wall is provided complimentary with the robot and as of now, its data is kept stagnant with no purpose at all. Using this project, this collected data can be harnessed to understand if the company has made good investment in this product or not and to provide insights improvising the company profits and resource allocation.

4. PROJECT OBJECTIVES

This project will be able to provide two outtakes: one to be able to filter, process and use the data generated and harness it to conduct analysis and gain insights on the usage of a robot; and two to be able to understand if the company’s investment behind this complimentary product is satisfactory or not so that the resource allocation process can be improvised in the future. The cost in gaining the data is not very high as the product is already manufactured with the robot, however the effort behind accessing and processing the data and providing the insights is high. This will however be outweighed by the profits and the forecasts that the company will gain by the knowledge provided by the project.

5. SCOPE

The major dependency of this project is the data that is generated by the virtual wall of the robot (if it is used by the customer). Based on the analytics provided by this data, better decisions can be made in terms of the investment and resource allocation of the company.

6. CONSTRAINTS

One of the constraints associated with the project would be to get the required amount of resources such as the analytics team to perform the analytical work amidst other primary analytics projects, which would result in the delays for this project. Also, the time required to distinguish the useful data from the stagnant one from the collected (historical) data, can cause significant obstruction to the free flow of this project.

7. INTERFACES

The current and historical data generated by the virtual wall of a customer’s robot (Roomba) will be a major interface for this project. Along with that, the tools that will be used in this project include Cloud Services, machine learning algorithms, data centers and visualization tools to provide the needed business insights.

8. QUALITY EXPECTATIONS

The quality expectation would be that the data generated by the virtual wall of the robot is used in a secure manner and not just kept stagnant. The insights provided by this data will enable in better allocation of resources and improvement of the company’s investments for providing superior products and customer service.

9. OUTLINE BUSINESS CASE

The business justification to undertake this project is to be able to improvise the company investments, profits and resource allocation and to be able to increase the customer retention rate using company insights and analytics.

10. CUSTOMERS AND USERS

The primary users of this project are the analysts and CRM team of the company to understand what can be further improvised and generate trend lines and forecasts for the same. The Software and Engineering (Robotics) team can also use the generated insights to gain some perspective into improvising the robot. Finally, the business executives such as the CIO, CTO and CFO of the company will view the data to understand the company investments and resource allocation.