

# Sprint 3 - Agility Design Document

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a.	<b>PROJECT OVERVIEW</b>	3
	The main objective of this project is to successfully problem solve, quantify, organize, document, code, test, and present a software system. The intended robot project will be completed with clear instructions for the following performance tests: Endurance, Accuracy, and Agility. Sprint 3 will be focusing on Agility.	
b.	<b>PURPOSE AND SCOPE OF THIS SPECIFICATION</b>	3
	The purpose of this specification is to allow children, adults, students, and professors to use the robot in its intended conditions (smooth and flat surfaces). This robot can be used for educational purposes as well as just playing around the house. In this sprint, we will be focusing on the accuracy of the robot and its program. This will be tested through a figure eight course.	
	<b>In Scope:</b>	
-	The robot and its program is intended for inside use only	
-	The robot and its program requires a smooth flat surface	
-	The robot and its program requires large enough space to successfully run the program	
	<b>Out of Scope:</b>	
-	The robot and its program is not intended to be used on rough or bumpy surfaces	
-	Operating on these surfaces can result in damage to the robot.	
-	Outside elements can also cause damage to the robot and could cause it to not run properly	
2.	<b>PRODUCT/SERVICE DESCRIPTION</b>	3
a.	<b>PRODUCT CONTEXT</b>	3
	This is the third and final test of the Robotics Triathlon project which is the agility test.	
b.	<b>USER CHARACTERISTICS</b>	3
	Users of this robot may consist of students, faculty, staff, individuals with previous coding experience or technical expertise. In order to use the robot, users simply need to understand simple block coding via the Sphero App. Access to a device with bluetooth is required in order to successfully connect to the robot via the Sphero App.	
c.	<b>ASSUMPTIONS</b>	3
-	The robot and its program will only work on certain operating systems	
-	iOS, Android, Fire OS, Windows, Chrome, and macOS	
-	Access to a flat, indoor surface that was able to meet the required measurements	
d.	<b>CONSTRAINTS</b>	3
-	Not all members had access to the robot	
-	COVID-19 limited our opportunities to meet in person	
-	Some members of the group work full time/part time jobs	
-	Members weren't able to use room with official measurements on campus	
e.	<b>DEPENDENCIES</b>	4
-	Robot must follow the correct path	
-	This project is dependent on that robot following the correct path	
-	If not, it will not succeed the intended goal/path	
-	Code must be established	
-	SpheroSPRK+ must be charged every hour	