Project : SwitchBot

powered by goDog

Project manager : Davin Sufer
Document title : *RTM – requirements traceability matrix*

In this document we present the complete list of the SwitchBot-goDog software requirements. The intent of this document is to provide a trace of the requirements through the software development life cycle.

History :

Version	Description	Author	Date
0.1	First outline	Raouf Bensalem	Nov 20th, 2014

Ref	Functional requirements	Project plan section	Added features
R1a	The application should provide an audio answer for voice commands corresponding to generic questions.	2.1.1	
R1b	The application should provide an audio answer for locations related requests .	2.1.2	
R1c	The application should provide an audio answer for translations requests.	2.1.3	
R2a	The application should produce an audio output if there's any error to inform the user.	2.1	
R2b	The application should produce an audio output if the voice command is not recognized.	2.1	
R2c	The application should produce an audio output to inform the user if the processing time is greater than 2 seconds.	2.1	X
R3a	The application should produce parsed data according to the protocol for the voice command "**move forward number_of_steps**".	2.2	
R3b	The application should produce parsed data according to the protocol for the voice command "**move backward number_of_steps**".	2.2	
R3c	The application should produce parsed data according to the protocol for the voice command "**turn left number_of_steps**".	2.2	
R3d	The application should produce parsed data according to the protocol for the voice command "**turn right number_of_steps**".	2.2	
R3e	The application should produce parsed data according to the protocol for the voice command "**dance**" .	2.2	
R3f	The application should produce parsed data according to the protocol for the voice command "**stand up**".	2.2	
R3g	The application should produce parsed data according to the protocol for the voice command "**lean forward**".	2.2	

R3h	The application should produce parsed data according to the protocol for the voice command "**lean backward**" .	2.2	
R4	The application should produce an audio output when the robot falls over.	2.3	
R5a	The application should be able to provide information about the robot joints positions (torso, right and left thighs, right and left calves and right and left pulleys).	2.4	
R5b	The application should be able to provide the start and end position when the robot is in a transition.	2.4	
R5c	The application should be able to provide the robot position whether he is standing, kneeling or laying down.	2.4	
R6	The application should provide a module to handle the communication with the microcontroller through usb.		X
R7	The application should provide a module to handle peripherals through a bluetooth connexion. (headset, speaker, …)		X