

Test Plan for Smart Cart

Beta Test Plan

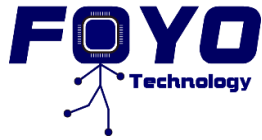
The beta test plan for our final product will be divided into four parts, which conclude the hardware, software and mechanical specific requirements of proof of concepts previously defined. This test plan illustrates the methods we use to test the functionality of each of our components to check their working status. We will provide the input and expected output of each test component, so it will be easier for the testers to compare the output and leave comments.

Connection Test

Link the TesigoApp with Tesigo			
Procedure	Expected Output	Pass/Fail	Comments
1. At the main screen of TesigoApp, click “ <i>Select Tesigo</i> ” button and Bluetooth screen will pop up 2. Select HC-05 (Tesigo Bluetooth with password “1234”) then the app will return to the main screen 3. Click “Remote Mode” to connect the app and Tesigo	- The select Tesigo’s name will be shown on the button instead of “Select Tesigo” - On Connection Status will show the green “Select Tesigo Connected” - Direction Control Panel is enabled		

Select Mode Test

Components	Procedure	Expected Output	Pass/Fail	Comments
Android App	Click “Remote Mode”	- Green “Select Tesigo Connected” shows on the Connect Status - Direction Control Panel is enabled - “Remote Mode” displays on mode		
	Click “Follow Mode”	- Red “Select Tesigo Disconnected” shows on the Connect Status - Direction Control Panel is disabled - “Follow Mode” displays on mode		
	Click “Manual Mode”	- Green “Select Tesigo Connected” shows on the Connect Status - Direction Control Panel is disabled - “Manual Mode” displays on mode		



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Remote Mode Test

Component	Procedure	Expected Output	Pass/Fail	Comments
Android App & Tesigo	Click "Forward" button	-Status bar shows "Forward" -Feedback voice: "Forward" - <i>Tesigo</i> starts moving forward		
	Click "Left" button	-Status bar shows "Left" -Feedback voice: "Left" - <i>Tesigo</i> turns slightly to left and revises to forward		
	Click "Right" button	-Status bar shows "Right" -Feedback voice: "Right" - <i>Tesigo</i> turns slightly to right and revises to forward		
	Click "Backward" button	-Status bar shows "Backward" -Feedback voice: "Backward" - <i>Tesigo</i> starts moving Backward		
	Click "Stop" button	-Status bar shows "Stop" -Feedback voice: "Stop" - <i>Tesigo</i> stops		

Follow Mode Test

Step1: User place him/herself in front of *Tesigo* by one step away and click "Follow Mode" button.

Component	Procedure	Expected Output	Pass/Fail	Comments
Kinect sensor & <i>Tesigo</i>	User walks forward	- <i>Tesigo</i> moves forward		
	User walks left	- <i>Tesigo</i> moves to left		
	User walks right	- <i>Tesigo</i> moves to right		
	User stops	- <i>Tesigo</i> stops		
	User gets out of the front of the cart (lost tracking)	- <i>Tesigo</i> stops		
	User come back to initial position (step 1)	- <i>Tesigo</i> tracks the user again		