

iOS test case

Test Case	Description	Expected Result	Result
User interface	Launch the app Tap "Start" button Tap "Stop & GPX" button App in dark/light mode Rotate device (landscape/portrait)	Splash screen appears, then home screen App starts recording location and time App stops tracking, prompts to save/export UI adjusts correctly without breaking layout Layout adjusts gracefully (if supported)	App launched Started, tracking good Able to end Dark/Light mode supported Works when rotating the device
Functionality	Start and end a tracking session Track while moving Stop without starting Export GPX file Import and view a GPX file	GPX file is saved locally or shared Distance and altitude increase accordingly App should show an error or do nothing File is exported with valid format and points Points and elevation shown on map correctly	GPX file saved locally Yes Yes Exported GPX file recorded nothing, file has created, ran the file on python, showing results
Data management	Check altitude recording Check distance recording Simulate rapid GPS changes Check timestamp consistency Check GPX file format	Altitude changes are accurately recorded Distance accumulates as user moves App filters noisy data or interpolates properly All GPX points are timestamped correctly GPX XML is well-formed and valid against schema	Changes in every .24 second and .50 second Elevation changing Need to go together with Macbook, needs work, maybe on thursday Correct Need to remove prefix like : <ns:tag> -> <tag> and </ns:tag> -> </tag>
Error handling	Disable location permissions Interrupt GPS (Airplane mode) Kill app during tracking Deny file write permissions	App asks for permission, or shows error App handles gracefully, shows "No GPS" App saves state or resumes session App shows error and doesn't crash	App asked for : Location, Motion n Fitness GPS error : User denied permission (works) App started new, tracking stopped, no file created Showed error, didnt crash
Performance	Run app for long durations (30+ min) Background tracking enabled	No crash or memory leak App records data while screen is off	Works Records data when locked
Plotting method	Spline Loess v2		Spline show sudden peak in Altitude graph Loess works fine