
Project Details

Name: Speedway RFID Swimming Prototype
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Work Carried Out

Worked through a lot of Impinj's *ItemTest* application configuration options and carried out more in-depth analysis of what some of these settings are actually doing. This has shed much more light on the options to test for that will have an impact on:

- read range discovery
- positioning of the tag
- signal strength
- direct line of sight and signal

which are some of the key areas for the preliminary initial findings.

Of particular interest are the various setting options for Sessions, Search Modes and Reader Modes.

These will have an impact on the read rate, sensitivity to interference, read range and timing of the tag read flags allowing control of persistence of states.

These options have been sketched out to test.

Further work was carried out testing the reader for picking up various tags and understanding how the data is being captured both successfully and unsuccessfully.

Below are some screenshots of tags been read and some data that was captured.

Two different tags were tried just to get some data generated:

- 1) M-Tudor tag
- 2) Smartrac 3D Frog UHF Tag

Both of these were picked up although there is some further work to understand the persistent nature of the M-Tudor tag appearing when it should be out of range. Just to ensure am capturing all the relevant data.

In addition some time was spent taking a look through parts of the Octane SDK documentation that corresponds to the various configuration options being looked at. This was to ensure there is sufficient documentation there if these are required to be programmatically carried out at a later stage. The documentation was quite encouraging.

Known Blockers

Currently none

Next Steps

Start taking more detailed measurements using various tags and the settings explored so far to build a picture for:

- read range discovery
- positioning of the tag
- signal strength
- direct line of sight and signal

Screenshots



