PROJECT

HEXAPOD ROBOT CONTROL SYSTEM

YEAR-END SUMMARY

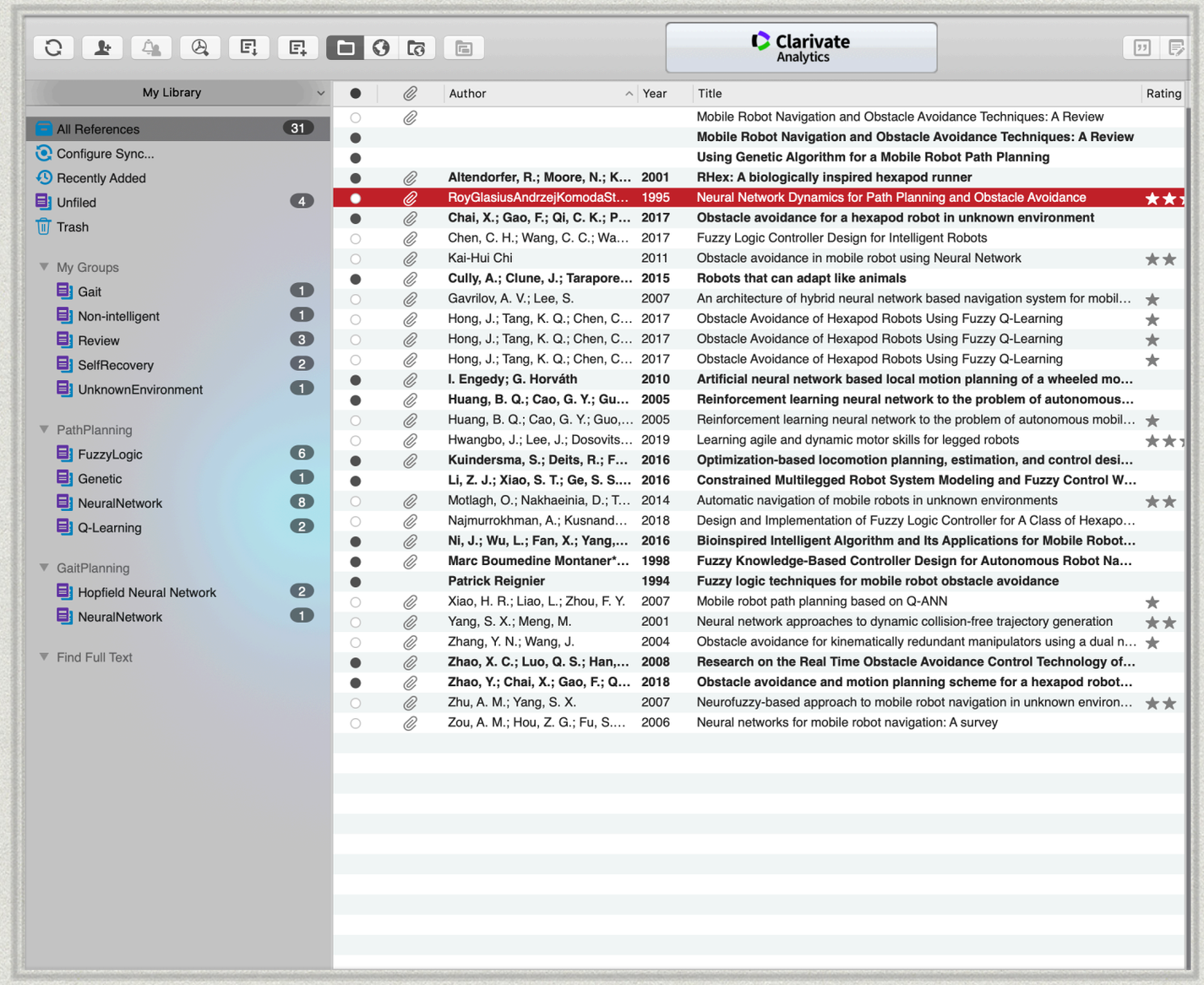
DATE	CLIENT
20/01/10	J. YANG Z. - DR. LIU

Summary of previous work

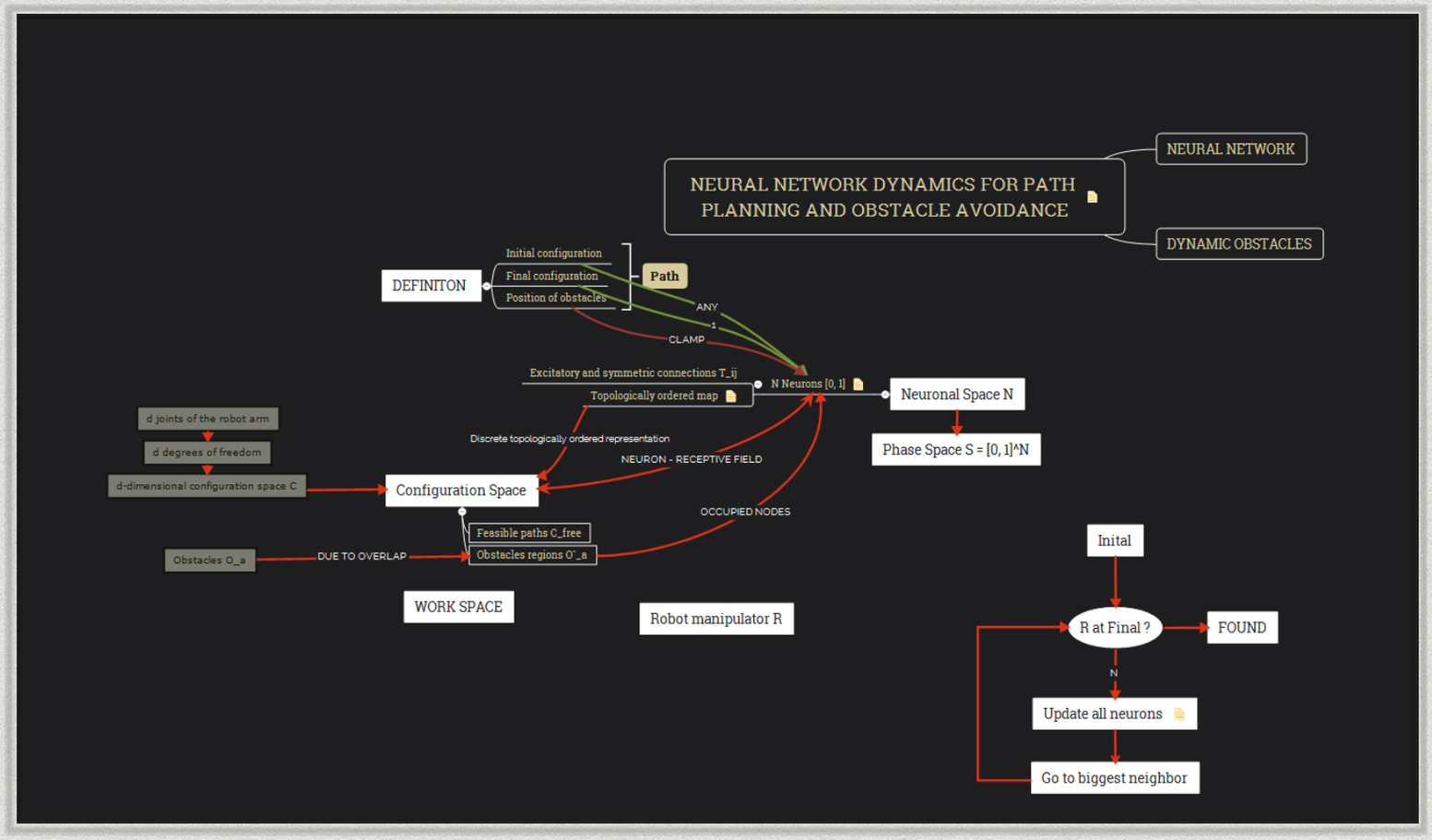
- Built up the EndNote library
- Technique chosen
- Realization of a simple test project

Built up EndNote library

- Collected a few dozen of papers about the topic

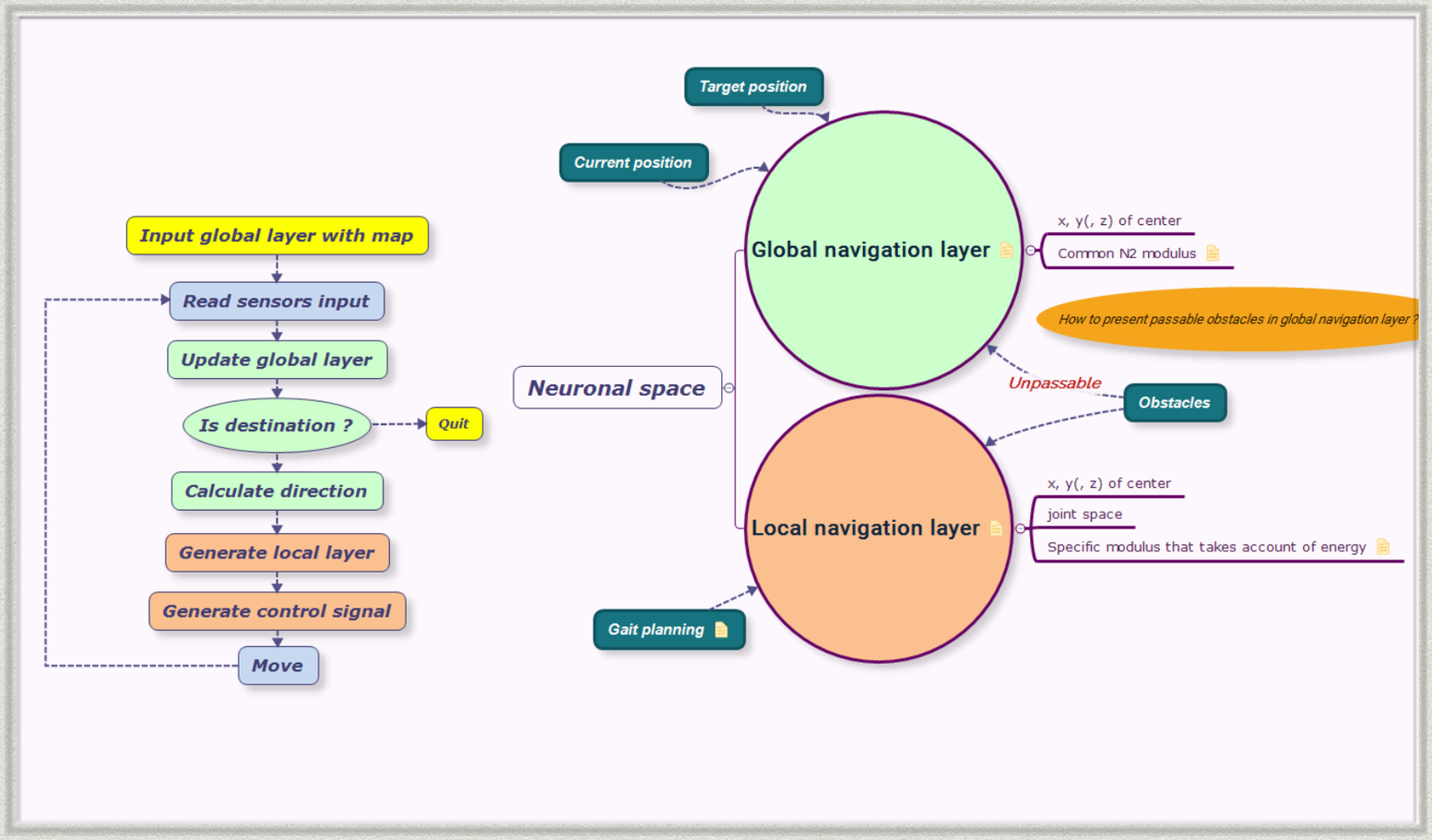


Technique chosen



- Chosen the Hopfield network as the technique

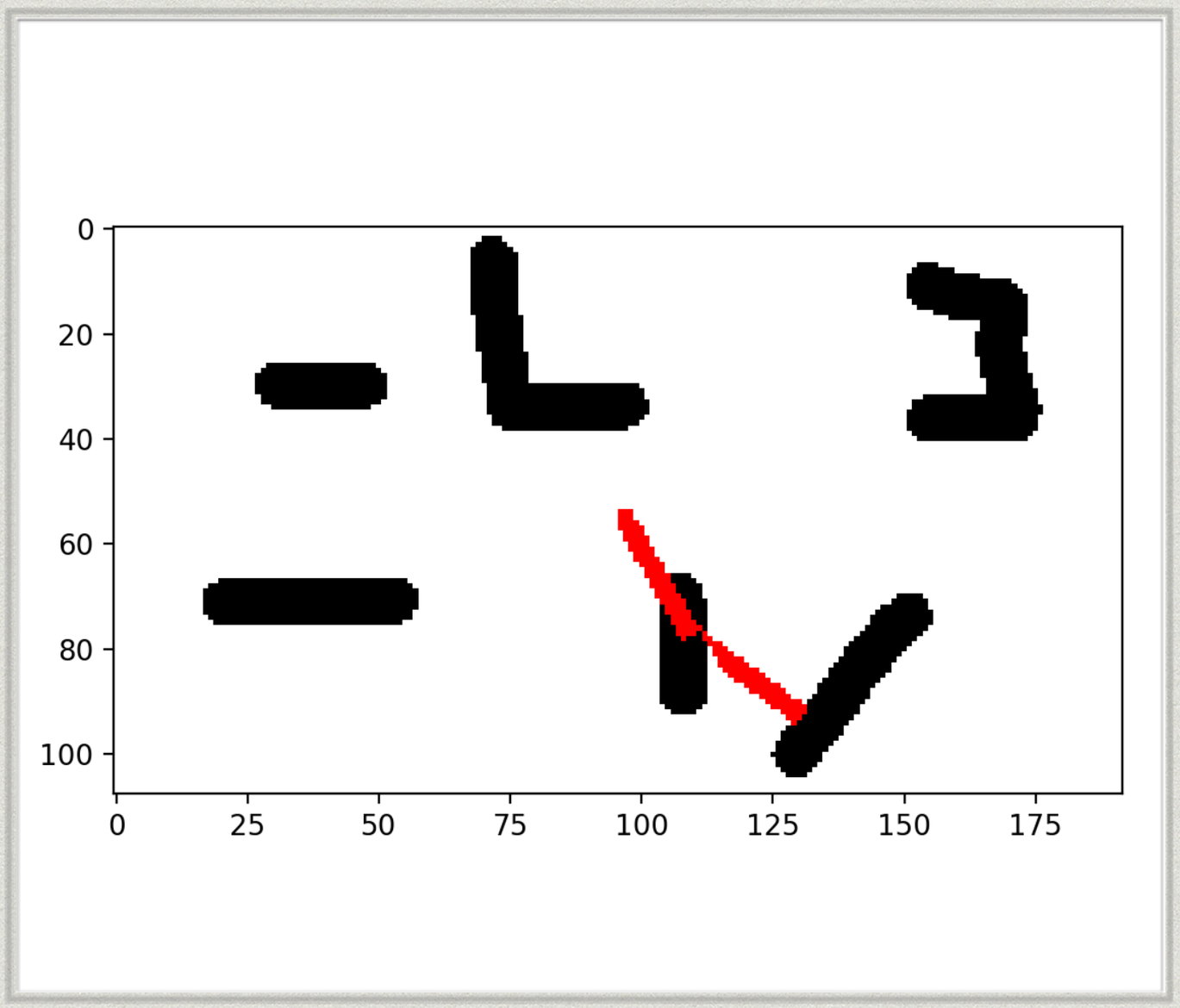
Technique chosen



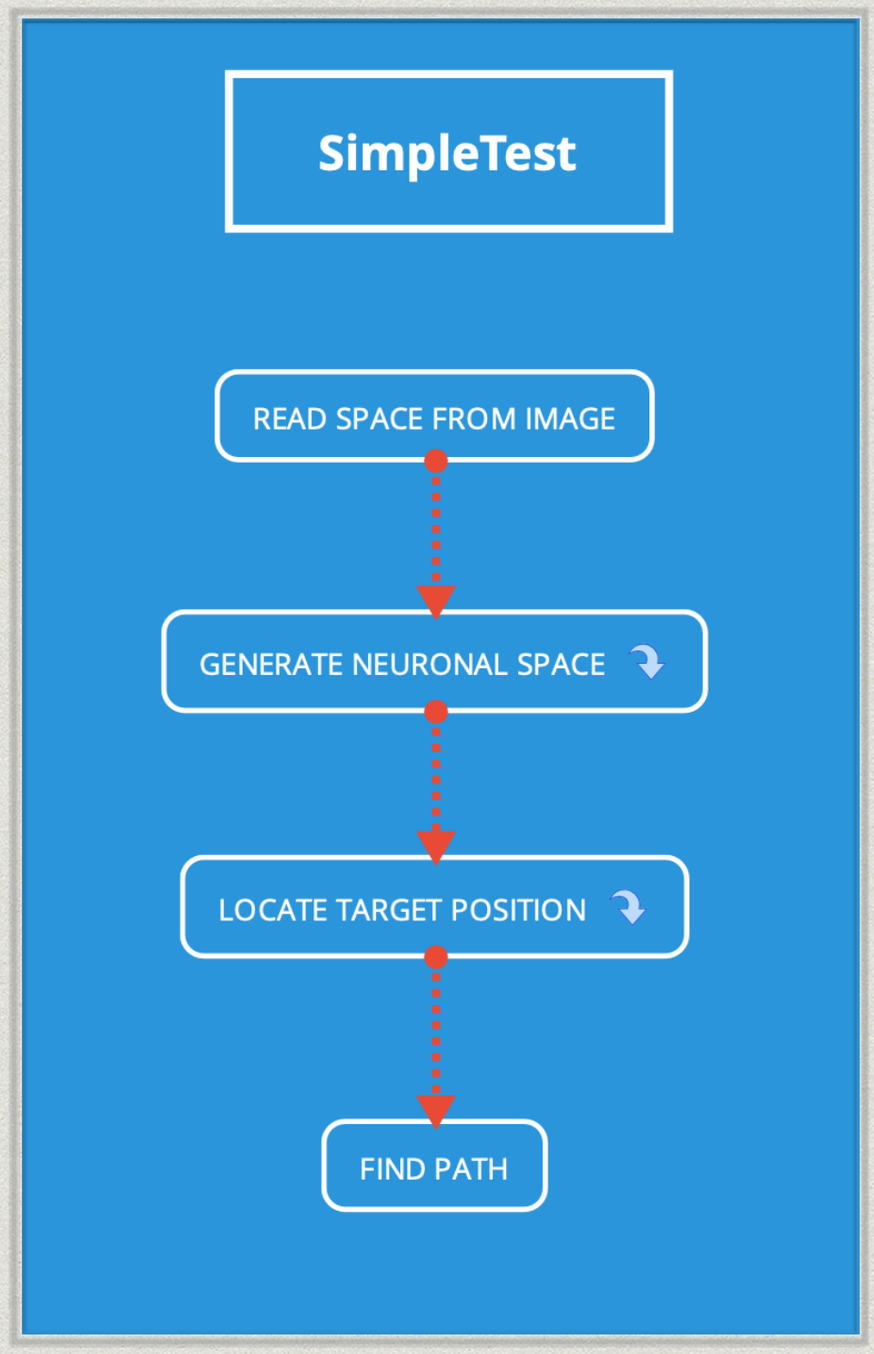
- Based on the paper, developed a possible system

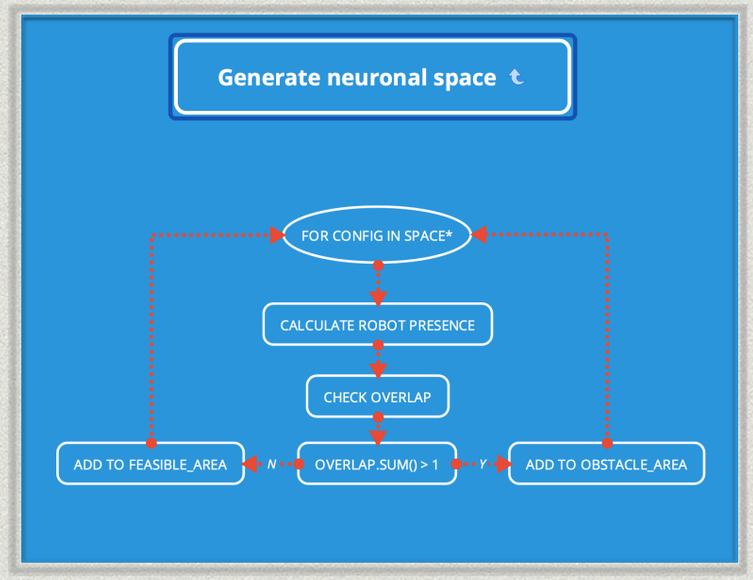
Realization of a simple test project

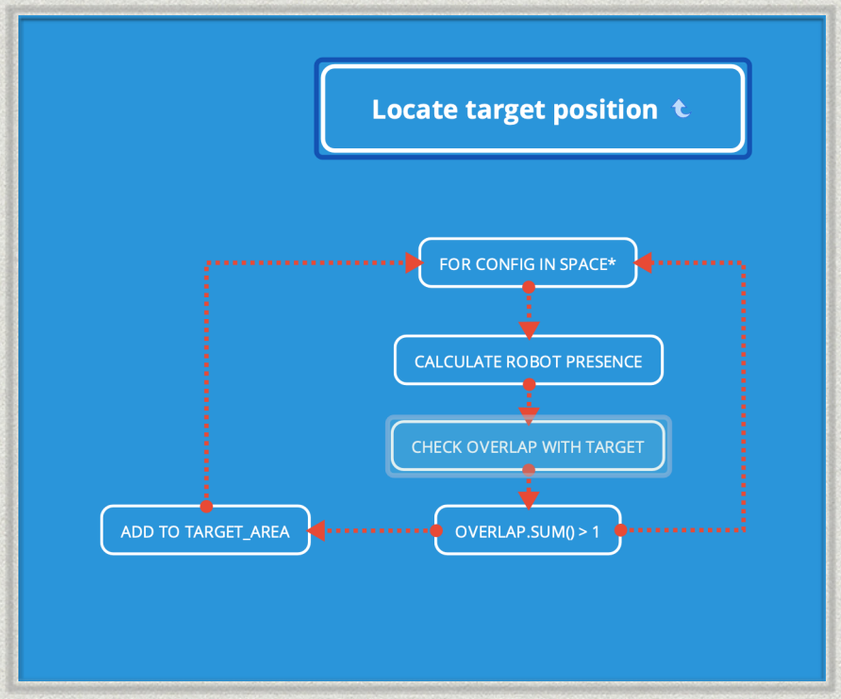
- 3 degrees of freedom
- Robot arm
- Plane space



Realization of a simple test project







Holiday work arrangement

- Finish up the simple project
- Optimization
- Prepare the hexapod information for the complete project

Current optimization ideas

- Use pre-calculated coordinates to reduce time consumed while generation of neuronal
- Use matrix to replace loops to use GPU acceleration (100~1000x more rapid)
- Prevent complete generation, skip unnecessary parts