

# Train Your Quagent

Programming Assignment #6  
CSC 481 – Spring '15

## ***Problem Statement***

Up to now we as developers were responsible for coding the AI for the quagents explicitly, either as scripted Java code, rule based Prolog code, or as an explicitly coded search procedure as in the A\* algorithm. In this assignment we hand over control to machine learning. The goal is to have the quagent acquire the knowledge it needs to perform its task from a set of explicit examples using the ID3 tree builder.

The task at hand is to walk along the walls of the Empty Room in a counter clockwise fashion (it would be ok to cross the room the first time from the spawn point). There is no stopping criterion, the quagent simply keeps on walking along the walls until it dies of old age.

In order to accomplish this assignment you should use the files that represent the learner framework and the ID3 tree builder. **You are not allowed to change these files or the file that these programs generate** for this assignment, the only control you have over the quagent is via the training examples.

Note, please restore your quagent.config file to a state such that there are no more obstacles in the room. DO NOT use the soldier.

## ***Deliverables***

The table with the training instances that teach your quagent the desired behavior and your quagent.config file. We will use this file to train our quagents and then have them walk around the room

## ***Submitting your Project***

Submit your work as a zip file in Sakai by **Monday April 27<sup>th</sup> , 11:30pm.**