



**INFORMATICS
INSTITUTE OF
TECHNOLOGY**

INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with
UNIVERSITY OF WESTMINSTER

6SENG003C

Reasoning about Programs

Coursework 1

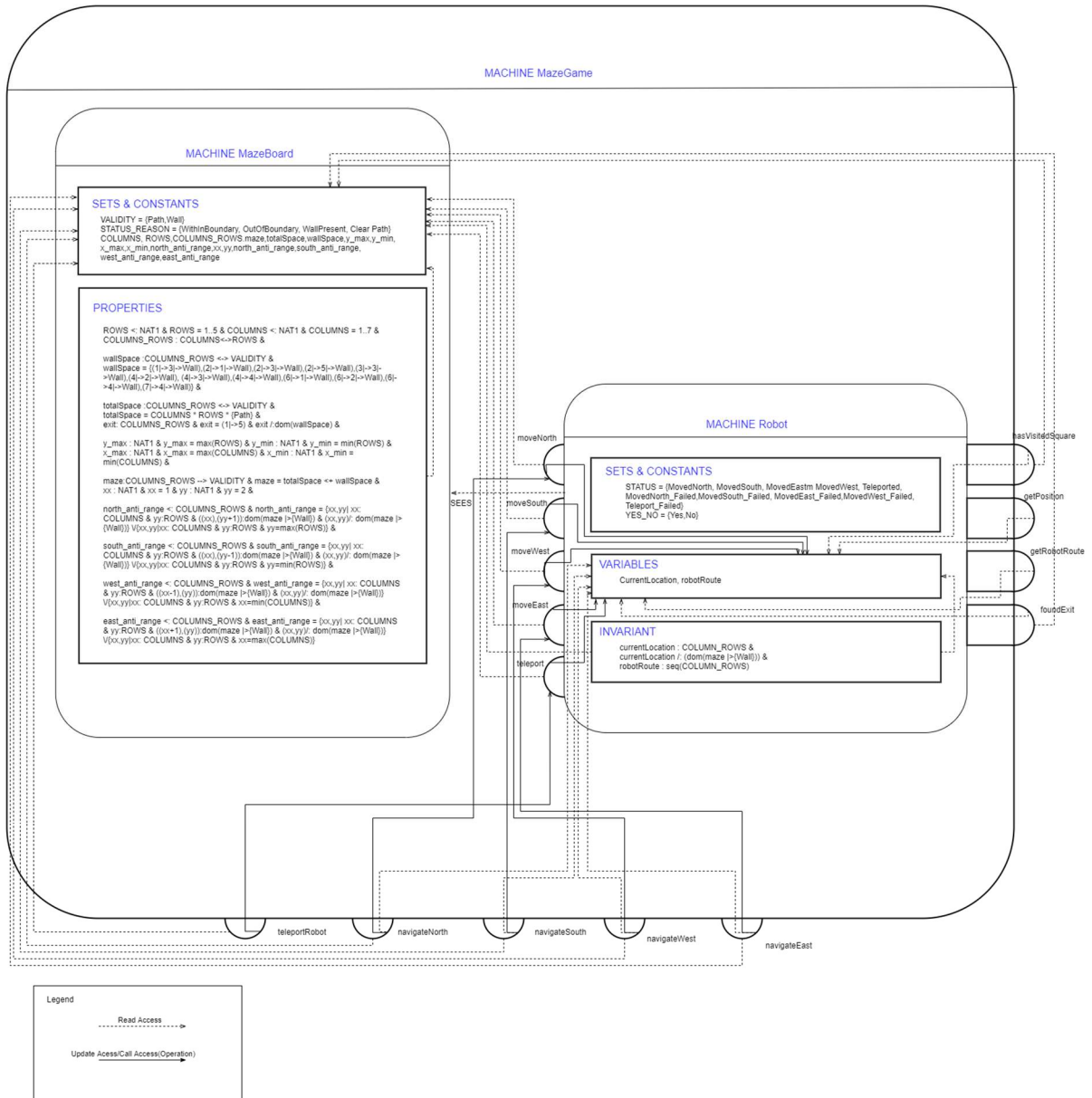
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Structure Diagram



Invariant and Invariant Explanation

Invariant	Invariant Explanation
currentLocation : COLUMNS_ROWS & currentLocation /: (dom(maze >{Wall}))	Current location of the robot is within the maze and should not be a wall
robotRoute : seq(COLUMNS_ROWS)	The coordinates visited by the robot in the maze. Therefore robotRoute has a collection of the coordinates in a particular order with the possibility of having duplicate coordinates.

References

Ref : The B-Method: An Introduction, S. Schneider, Palgrave Macmillan, 2001. ISBN 0-333-79284-X