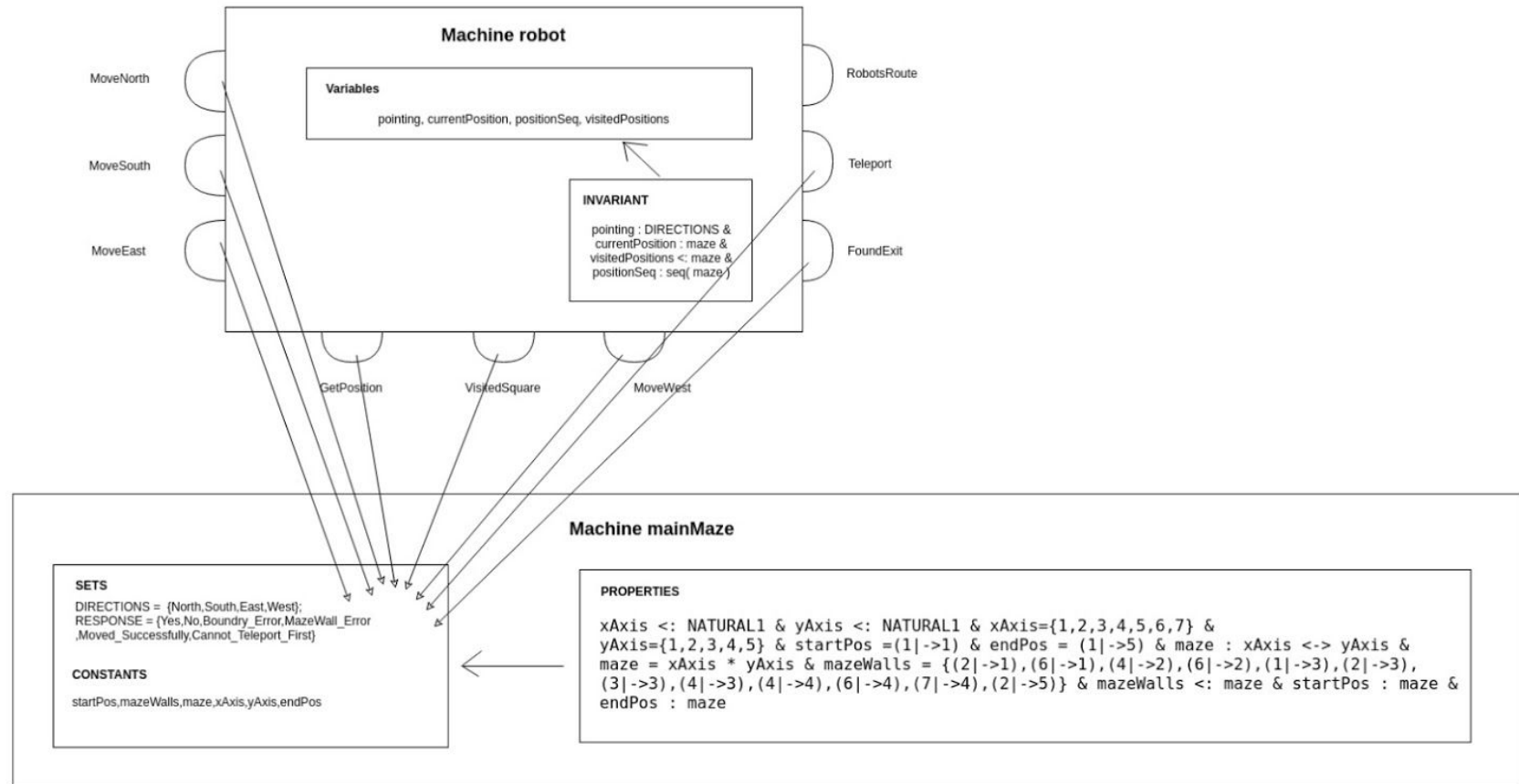**Student Name**: Bilal Ahamed Rifas
Student ID: 2016065
UOW ID: W1626625

Structure Diagram

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Explanation of state invariants

pointing : DIRECTIONS - Sequence of directions of the SET DIRECTIONS.

currentPosition : maze - position of the robot in the maze, we use NATURAL1 because the value can be an element of non-null natural numbers.

visitedPositions <: maze - This will contain a sequence of visited directions which will get updated for every move that robot takes in the maze.

positionSeq : seq(maze) - Sequence of positions on the maze.