



INFORMATICS
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INFORMATICS INSTITUTE OF TECHNOLOGY
In Collaboration with
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6SENG003C Reasoning About Programs

Coursework 02

B Structure Diagram of the Snakes & Ladders, Invariants Description

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1.B Specification Structure Diagram

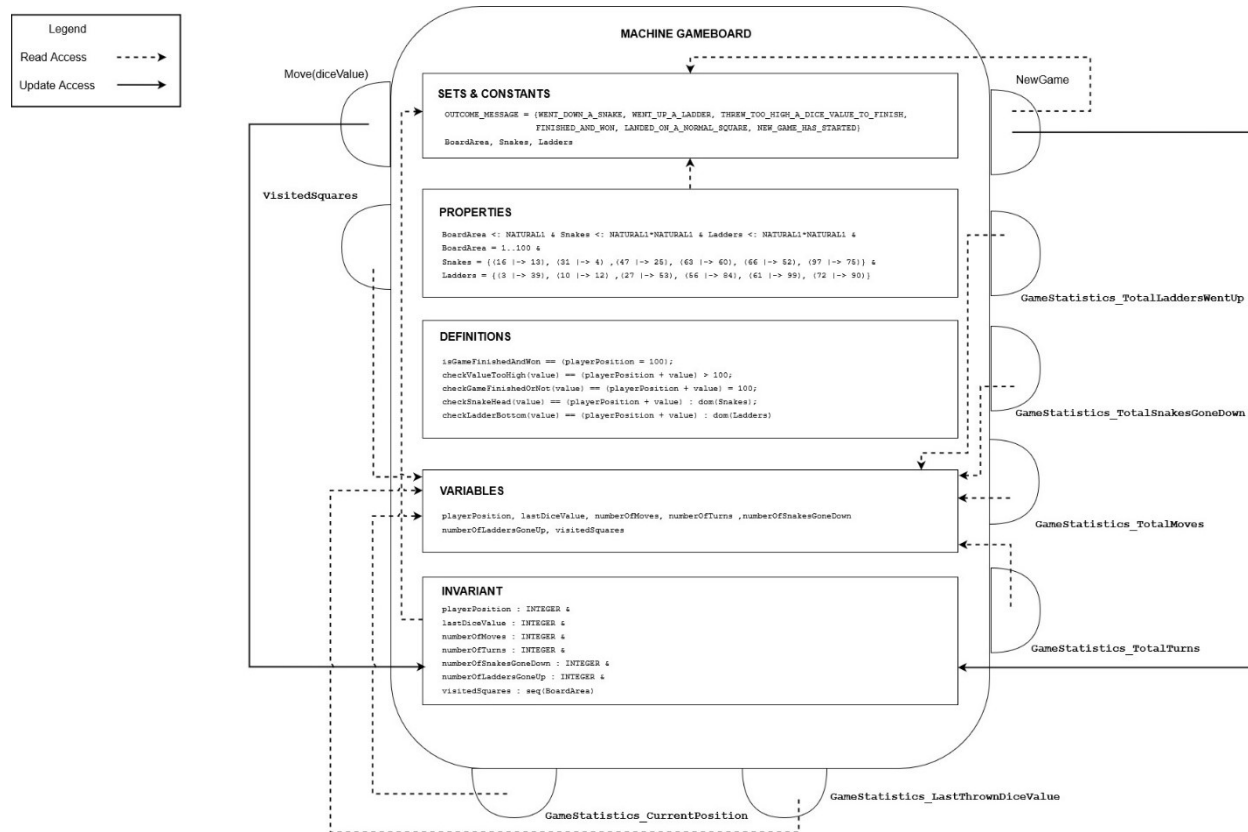


Figure 1: Machine GameBoard

2.Explanation of System Invariants

Invariant	Explanation
playerPosition : INTEGER	Current position of the player should be an integer.
lastDiceValue : INTEGER	Last thrown value should be an INTEGER
numberOfMoves : INTEGER & numberOfTurns : INTEGER	Number of moves and Number of Turns taken should be INTEGER.
numberOfSnakesGoneDown : INTEGER & numberOfLaddersGoneUp : INTEGER	Number of snakes and Number of ladders encountered should be an INTEGER.
visitedSquares : seq(BoardArea)	Player visited squares should be a sequence of game board area to record the visited squares in order.