

# Assessment Feedback Form

<b>Module</b>	6SENG005W Formal Methods		
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<b>Module Team</b>	Paul Howells (P.Howells@westminster.ac.uk)		
<b>Coursework</b>	"Robot in Maze" B Specification		
<b>Assessment Weight</b>	50%		
<b>Blackboard Submission</b>	<b>13:00, Monday, 9th January 2023</b>		
<b>Student</b>		<b>Mark %</b>	

**Feedback:** (1) During pre-submission tutorials. (2) Comments given below.

**GREEN:** very good – excellent      **AMBER:** okay – good      **RED:** fail – poor

## 1. Maze Specification Forms

<b>Structure Diagram of the Maze &amp; Robot System</b>	
	<b>/ 10</b>

## 2. Maze & Robot B Specification

<b>Sets, Constants, Variables &amp; Constraints</b>		
SETS[3], CONSTANTS[7] & PROPERTIES[15]		<b>/ 25</b>
VARIABLES[2], INVARIANT[6] & INITIALISATION[2]		<b>/ 10</b>
<b>TOTAL</b>		<b>/ 35</b>

<b>Movement Operations [All Movement Operations have: 1 Success &amp; 2 Failure Cases]</b>		
MoveRobotNorth [10] MoveRobotSouth [10] MoveRobotEast [10] MoveRobotWest [10]		<b>/ 40</b>
TeleportRobot		<b>/ 15</b>
Reset		<b>/ 5</b>
<b>TOTAL</b>		<b>/ 60</b>

Enquiry Operations		
<i>GetPosition</i>	[2]	
<i>FoundExit</i>	[2]	
<i>hasVisitedSquare</i>	[4]	
<i>RobotsRoute</i>	[2]	
		/ 10

Specification Structure (Used 1 B Machine or Several linked B Machines)		
Single B Machine		/ 5
Multiple B Machines		/ 20
<b>TOTAL</b>		<b>/ 25</b>

<b>Specification Mark Total</b>	<b>/ 130</b>
<b>Specification Mark Scaled to 65% (Mark * 0.5)</b>	<b>/ 65</b>

### 3. ProB Animation Session History Graph

<b>ProB Animation Graph ("dot" file)</b>	<b>/ 10</b>

### 4. B Tools Atelier B & ProB

Screen Shot Images (.png or .jpg) of Tool Usage & Specification Analysis		
Atelier B: Syntax & Type Check		/ 4
ProB: Initialisation		/ 5
ProB: Animation		/ 2
ProB Analysis: Evaluation View		/ 2
ProB Analysis: Eval Terminal		/ 2
<b>TOTAL</b>		<b>/ 15</b>

## 5. Additional General Comments (if appropriate)

<b>Overall</b>
<b>Improvements</b>