PROGRAMMING A MICRO-CONTOLLER - EXAMINATION QUESTION

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS https://www.facebook.com/groups/254963448192823/

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On behalf of The World Association of Technology Teachers

W.A.T.T.



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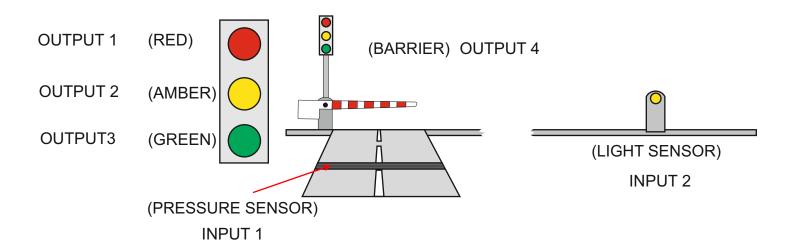
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The traffic control system shown below has INPUTS and OUTPUTS. Each input and output has a number - these are listed on the diagram below.



Write the control sequence for the following sequence of events: Please note, when the barrier is raised/open it is 'ON'. When the barrier is lowered/closed it is 'OFF'. The first five stages have already been completed.

OUTPUT 1 ON

TRAFFIC LIGHT - RED BARRIER IN CLOSED POSITION INPUT 1 AND INPUT 2 OFF TRAFFIC LIGHTS RED + AMBER ON WAIT 5 SECONDS TRAFFIC LIGHTS - RED + AMBER OFF		
	OUTPUT 4 OFF	
	IF INPUT 1 OFF AND OUTPUT 2 OFF	
	OUTPUT 1 AND OUTPUT 2 ON	
	WAIT 5	
TRAFFIC LIGHTS GREEN ON		
BARRIER OPENS WAIT 60 SECONDS TRAFFIC LIGHTS - GREEN OFF TRAFFIC LIGHTS - AMBER ON WAIT FIVE SECONDS TRAFFIC LIGHTS - AMBER AND		
RED ON		
WAIT 5 SECONDS TRAFFIC LIGHTS - AMBER OFF BARRIER LOWERED.		

Suggest two improvements to the traffic control system shown in the diagram above.

1.		
2.		