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goal, the robot

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moves along the  
m-line toward  
goal until it  
either

encounters the  
goal or an  
obstacle. If the  
robot encounters  
an obstacle, let  
 $q_{H_1}$  be the  
point where the  
robot first

encounters an  
obstacle and

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call this point  
a hit point. The  
robot then cir-  
cumnavigates the  
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it returns to  $q_H$   
1. Then, the  
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