



NAO CHALLENGE

TEAM THE DEBUGGERS

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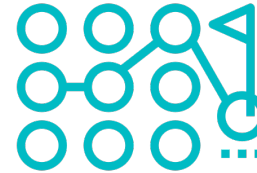
PROBLEM DESCRIPTION



TESTING SOFTWARE:
CHOREOGRAPHE



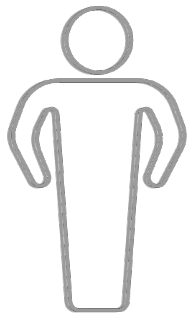
NAO MOVEMENTS
IN **PYTHON**



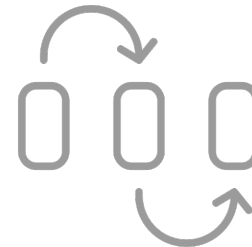
CONSTRAINTS
BETWEEN POSITIONS



MAX TIME:
3 MINUTES



MANDATORY
INITIAL AND FINAL
POSITIONS



6 MANDATORY GIVEN
POSITIONS



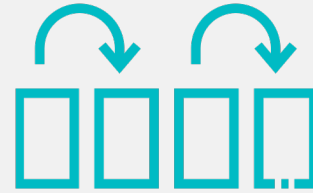
AT LEAST **5 DIFFERENT**
TRANSITIONS FROM SET

ALGORITHM



AIMA Python Library

The **AIMA-python** repository implements, in Python code, the algorithms in the textbook AI: A Modern Approach.



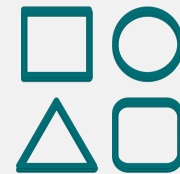
At least **2** transitions

We imposed at least 2 transitions between each mandatory move to be able to use at least 5 of the given transitions.



Breadth First Algorithm

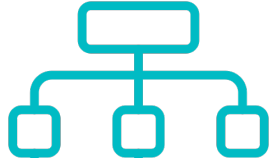
We have chosen this strategy because ensures **COMPLETENESS** and there were no efficiency constraints.



Check on repetitions

For a matter of style the algorithm generates a solution selecting **no repeated movements in consecutive intervals**.

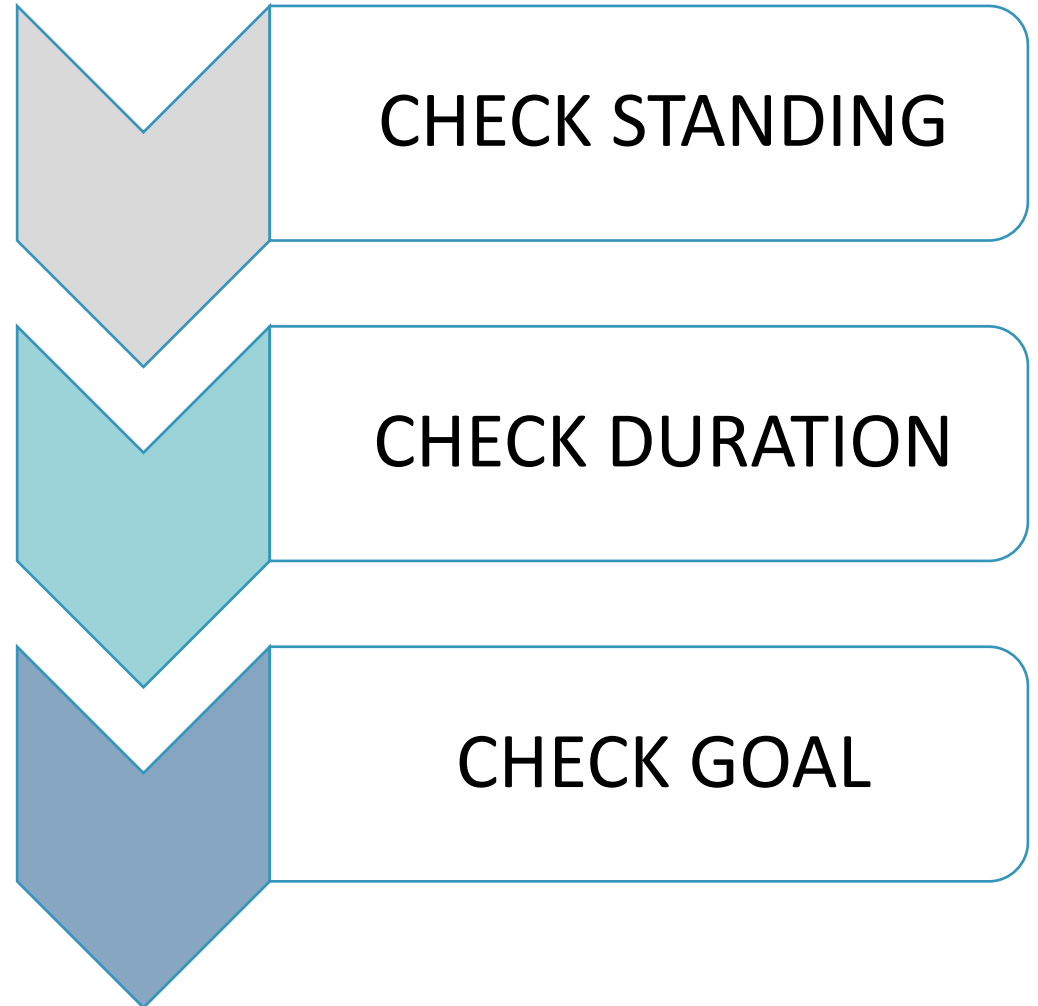
CONSTRAINTS



In this problem, **nodes** are body state. Each state has **pre-conditions** and **post-conditions**.



For each movement, **pre-conditions** and **post-conditions** have to be respected. The algorithm anticipates failures and search for other paths.





THANKS FOR THE
ATTENTION