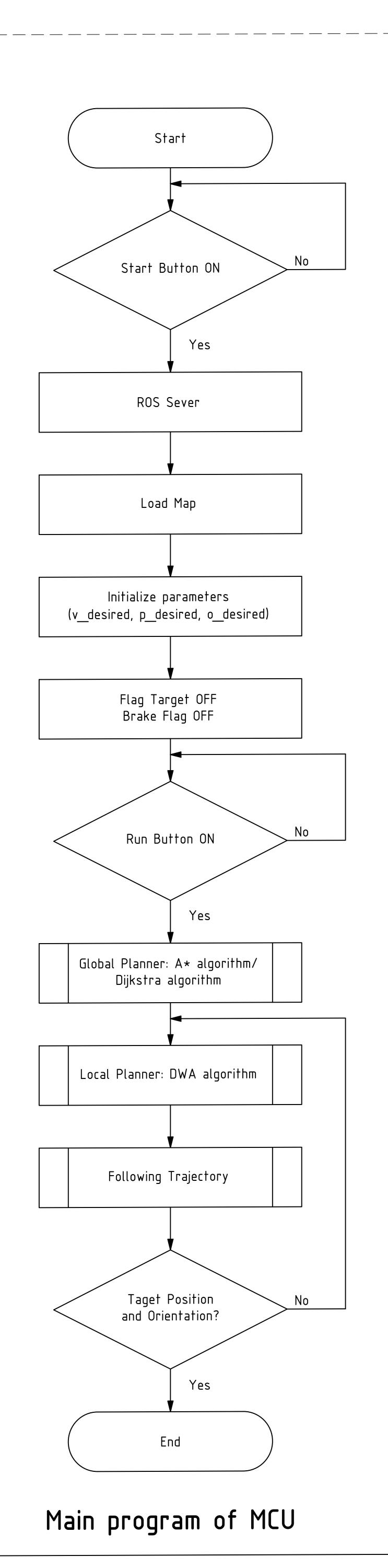
## ALGORITHM FLOWCHART



Scan map - with obstacle data

Assign a

Remove cur

Full Map

Yes

Save Global Map

End

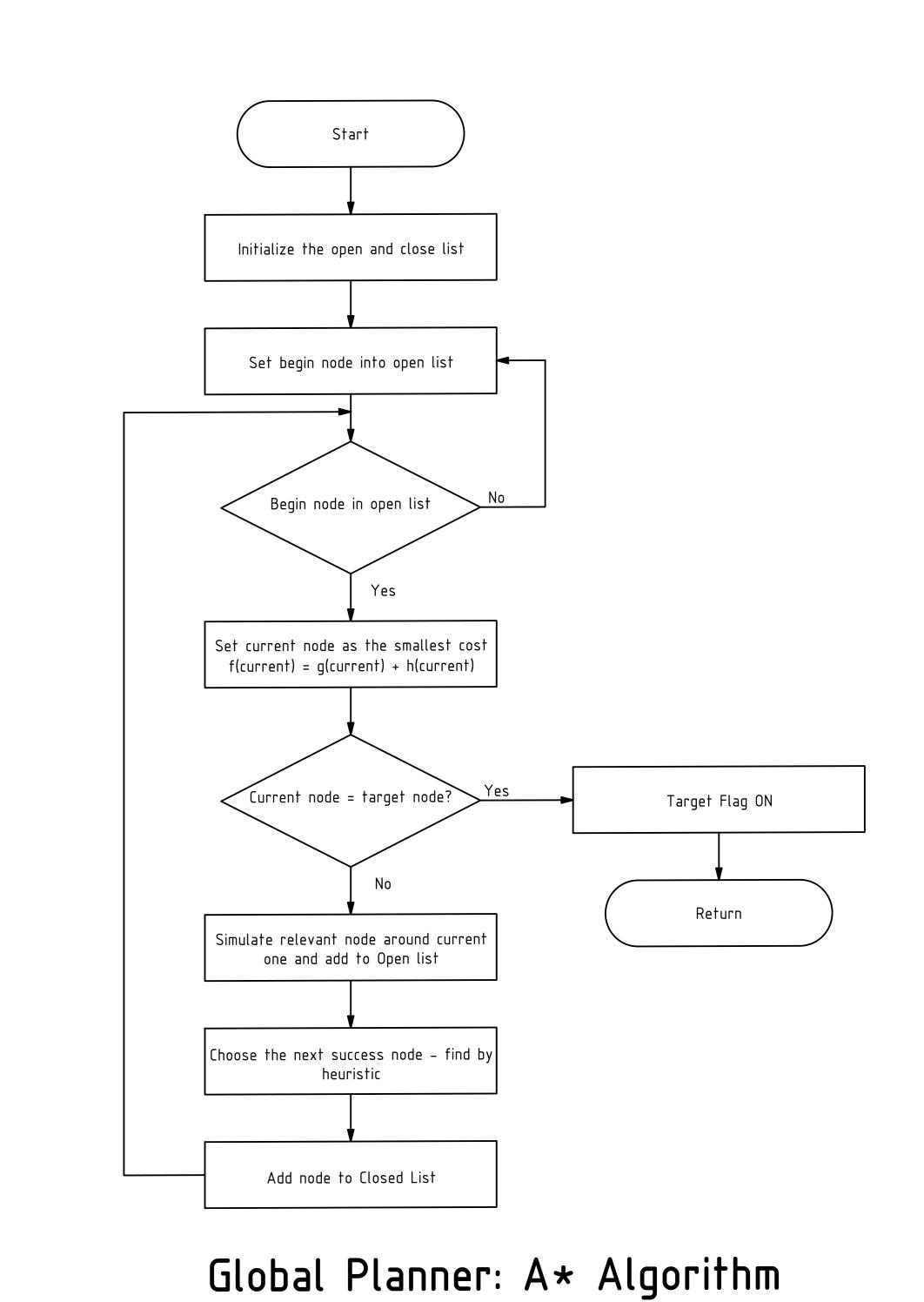
Assign a current score of 0 to start node

Remove current node from unvisited list

Target Flag ON

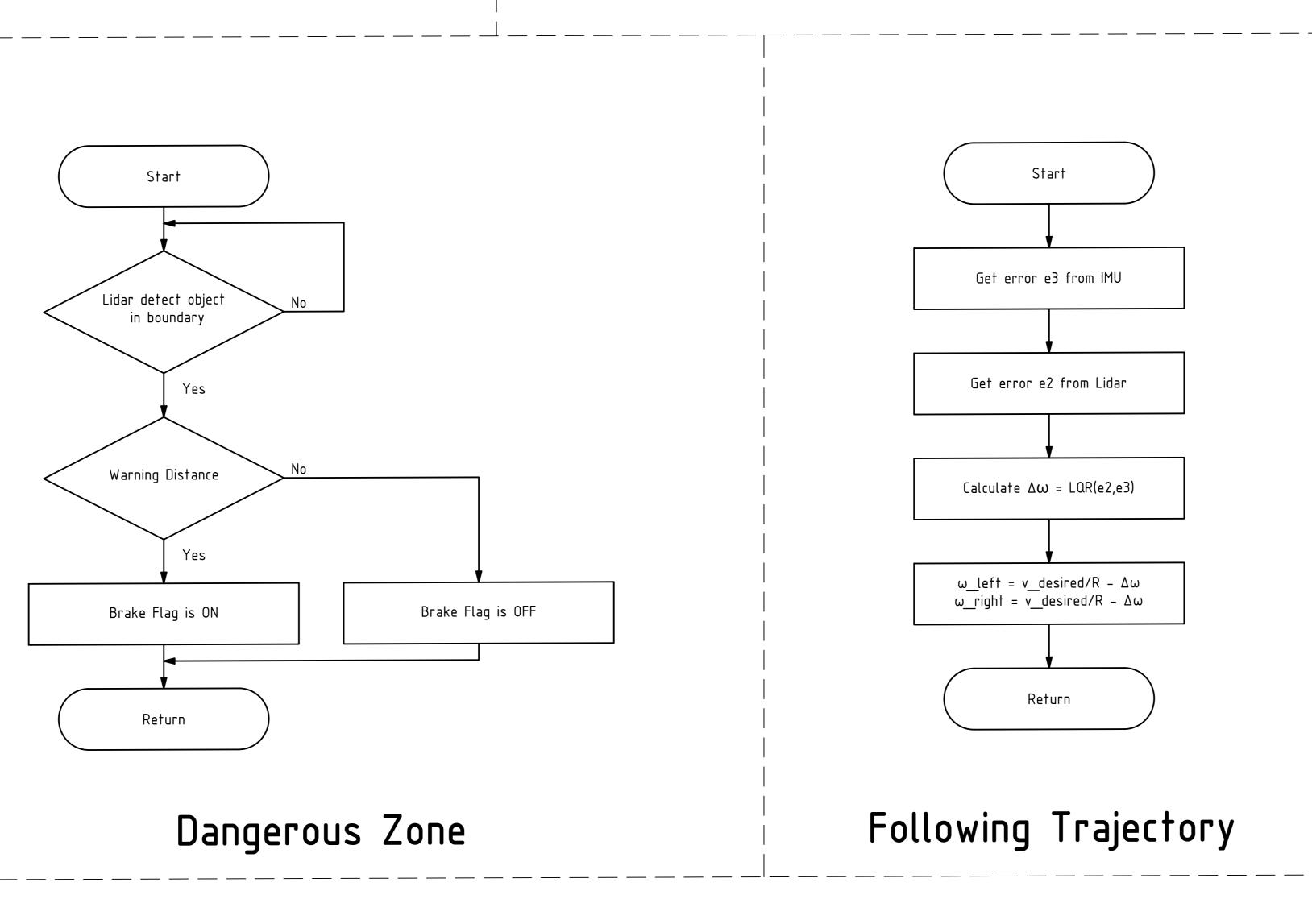
Trace back to get the shortest path

Calculate the cost of neighbor node:
g(n) = g(c) + d(c,n)

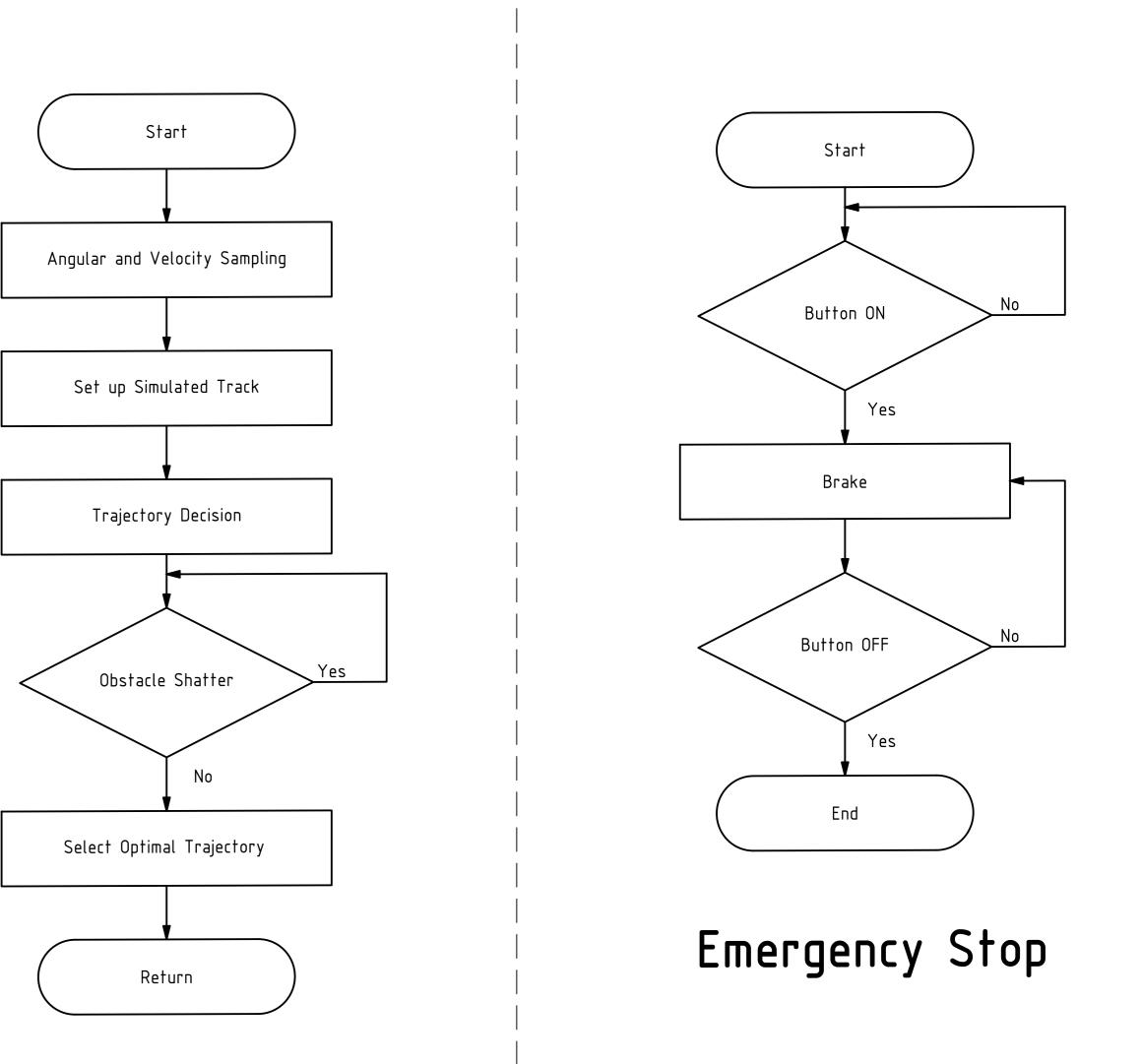


Map Sever

Global Planner: Dijkstra Algorithm



Local Planner: DWA Algorithm



Note:

v\_desired: the input desired velocity (rpm)
p\_desired: the input desired position (deg)

ω: the angular velocity output from LQR (rpm)o\_desired: the input desired orientation (deg)

Function Name Signature Date
Name Trinh Hieu 8/11
Quoc Bao
Instructor
Le Thanh Hai
Checked Name

HCMC University of Technology

FINAL THESIS

TOWING AGV