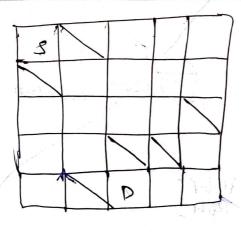
Harshit Hiremath 18M18C5 036

10/11/20

## Al - Lab Test 1

Program4:

A\* Scarch with enclideon distance :-



Psendocode: -

def f (curr-state, goal-state):

h = sqrt ((cur-state. n - goal-state. n) +2+ (cur-state.y -goal-state.y) \* +2)

return h

de a-star-search: (20 det astarsearch (grid, src, dest);

if is Valid (src. first, sxc. second) == false:

if is Valid (dest first, dest . Second) = = false: neturn

if is Destination (src. first, src. second, dest):

octum grid # Aloealy at destrution n = grida; y

y = gnel.y.

eclid = f(gnd, dest)

if grid[x][y] = = 2:

print "found at "id, "id", (x, y)

return True

elif gnd[x][y] = = 1:

print "Wall at 'xd, xd", (n. y)

return False

elif grid [x][y] == 3:

print "visited rd, rd", (x, y)

return False.

#1 = Nall # 2 = deavailable block 3= visited block.
grid [vi][y]=3

if ((n Klen(grid)-1) and astarsearch (n-1,y)) or (y>0 and astarsearch (n,y-1)) or n> and actarsearch(n-1, y)) or

Cy < len Cyrid)-i and astarsearch (x,y-1)):

return True

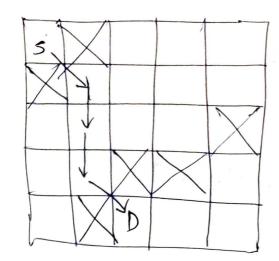
return False.

astarscarch (o, o).

Hence, Letth At & search with on using enclidean function is included.

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