SEARCH ROBOT

START

intialising all the ports with init_devices() including lcd ports with lcd_init()

using nextdest() to find the next destination to go in search of white debris

shortest_path(int source, int destination) to get the path bot needed to travel to reach the destination found.

call to dijkst... based on the

returning an array with the instruction... left/right/forward etc. to take

Makeitright(int first_move) to decide and turn in the direction bot need to face in order to start travelling for destination(based upon the total turn it took in the last movement and first direction it need to take)

line following begins here

taking sensor values from all the three white line sensors and sharp sensor placed in front

if there is any obstruction in the path(sharp value between 80-130)

if the blockage is at destination node

if the blockage is not at destination node

make source the current node, remove the next node from matrix in dijkstra.cpp and the from the possible destinations array.

make source the curre... next node from mat...

if no white debris is detected

move arm lik... debris in clea... underplaced s...

send the proper signal to the bot and light the rgb led with proper color
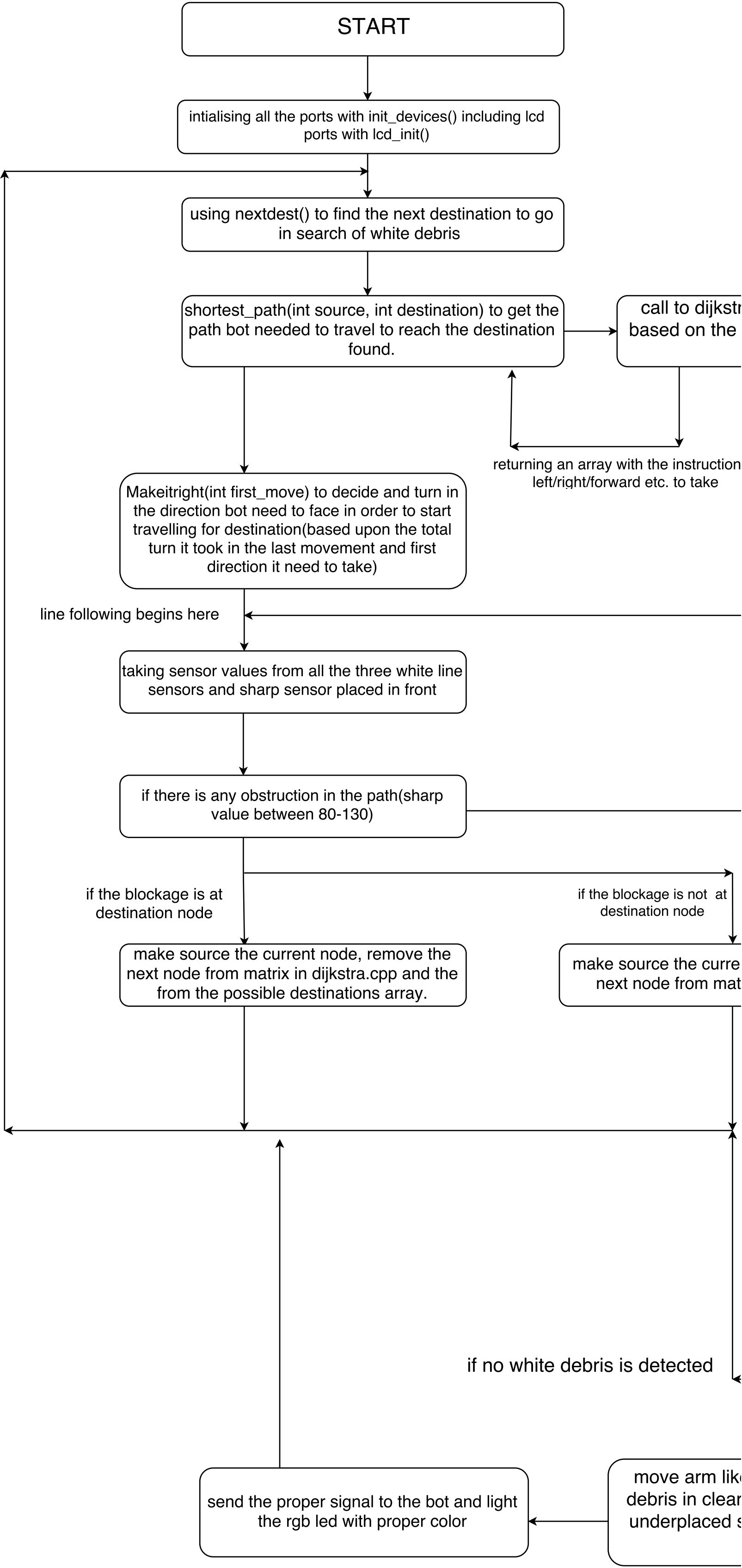
ra.cpp to use dijkstra algorithm
adjacent matrix provided for the
arena

of

if destination is not yet
reached

no obstruction in path

nt node, remove the
rix in dijkstra.cpp

standard line following till the all three black line are
detected(joints in arena)
At joints take next order from array and set current as the
current node.

if destination is reached

start white debris detection procedure and send a flag
to the rescue bot to start moving (to prevent collision)

set current node as traversed in nextdest array
and start taking left turn till the black line is reached
or an object(white debris) is detected is present

if no white debris is detected

start taking left turn till the black line is reached or an
object(white debris) is detected is present.

white debris detected

e structure so built to move the
ring zone and snese the color of
sheet by calling sense() of color
sensor.