MAZE NAVIGATION

Walter Võikar, Furkan Polat

THE ALGORITHM

1-Now put a paper on the robot and the color of the paper must be orange in order to do blob detection
2-By using the coordinates,state the robot and know where the robot is standing.
3-The most important part is stating the nodes and you can also increase the amount of nodes.
4-After that make a connection between nodes
Here is the a small example of the code.

```
#From first nood to second node
if x==15 and y==5:
    go.fwd()
#From second nood  to third node
if x==20 and y==5:
    go.right()
    time.sleep(2)
    go.stop()
```

THE TROUBLES

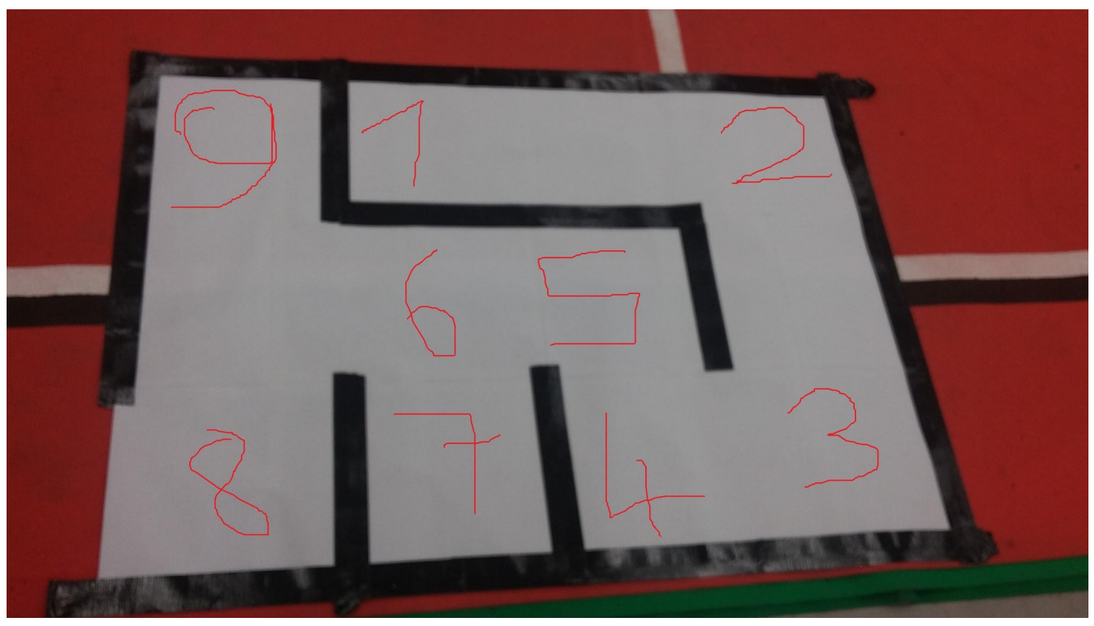
1-It is needed to upload the opencv library.However In my computer it didnt work so I used the computers of the lab room.

2-You can also need to upload your python version because the opencv libraries are more suitable.

3-The imaga processing can be slow so you might have to wait a bit in order to get the good values.

4-The last thing it is needed to avoid the light of sun because the image is getting slow and it is being complicated for the project

THE NODES



FOR IMPROVOMENT

1-It is also possible to add some sensors in order to know the position of the robot by using gyroscope after that you might not need to say go.right or left to change the direction according to the nodes.

2-To get the best value you can use a big cartoon instead of a paper.Therefor,the camere will get the perfect values for the cordinates of the robot or more visible objects.