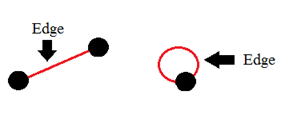
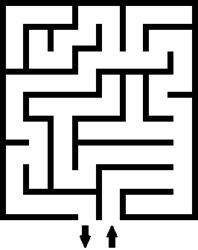
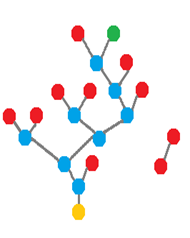
**2D and 3D Maze Solving Algorithms**



Representing a Maze as a Graph

Vertex: Intersections of 3 or more paths, Dead Ends, Start, and Finish

Edge: Paths between vertices

**Maze Solving Algorithms**

Wall Following

-Follow the left or right wall from the start.

-Works if the start and end of the maze are in at the edge of the maze.

-Will only work if the start or end has a wall connecting them.

Trémaux's Algorithm

-Mark a path once you follow it. Never go down a path with 2 marks.

-At each intersection, choose an arbitrary path with the fewest marks.

-Turn around at dead ends.

Dead End Filling

-Fill in all the dead ends and gradually connect the filled in dead ends until a path to the

end is revealed.

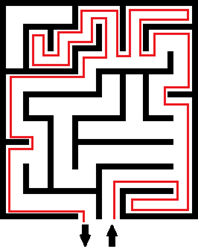
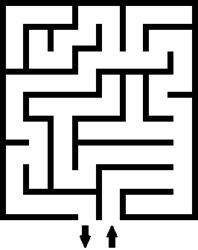
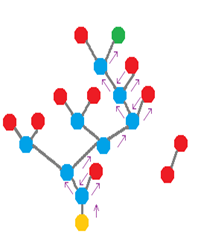
Breadth First

-Explore starting point’s neighbors.

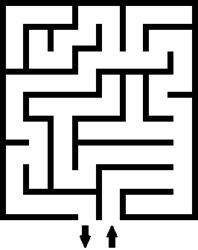
-Move onto next level until the end is reached.

-Each vertex appears only as the first connection.

Wall Following

Trémaux's Algorithm 3D Maze as a 2D Maze

Weighted Paths

