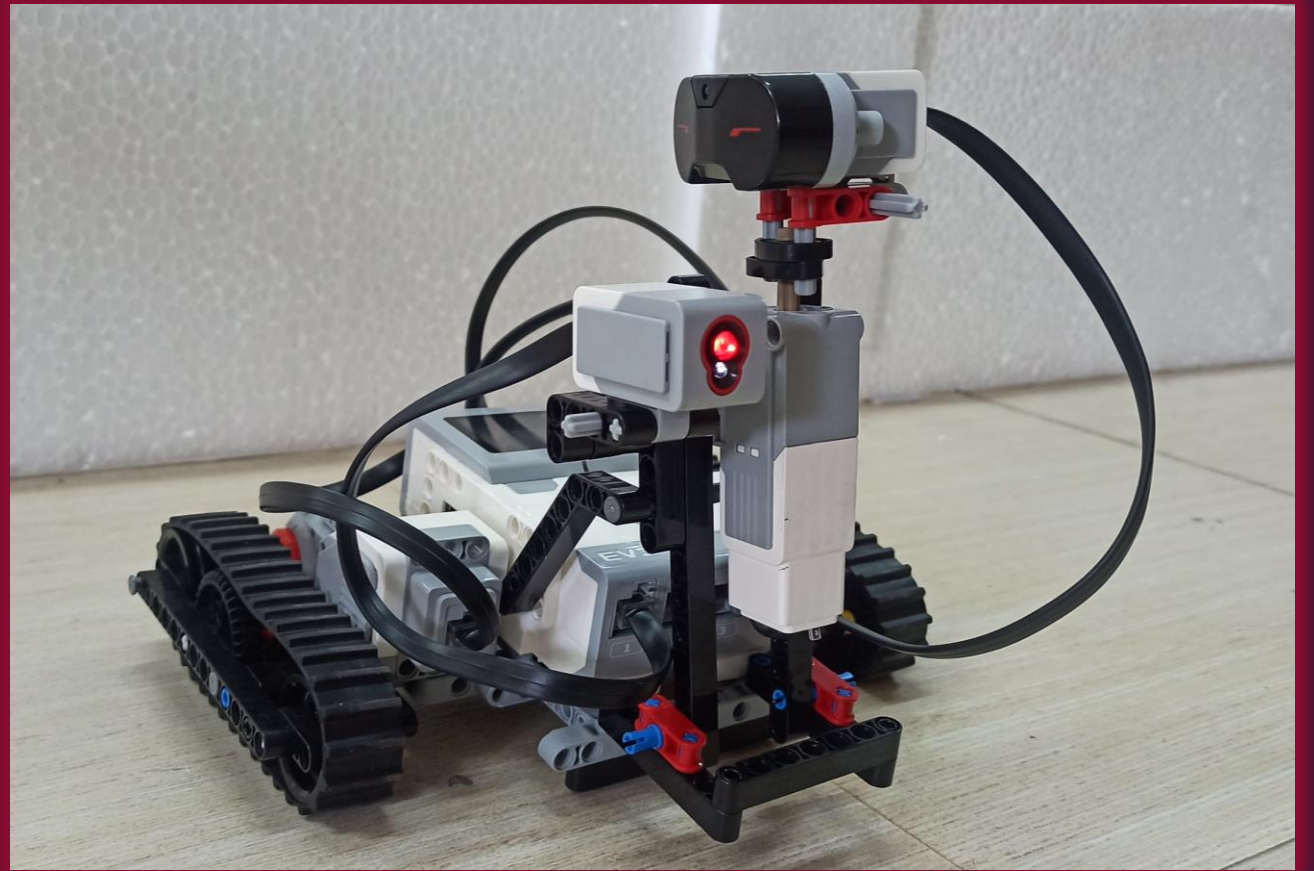
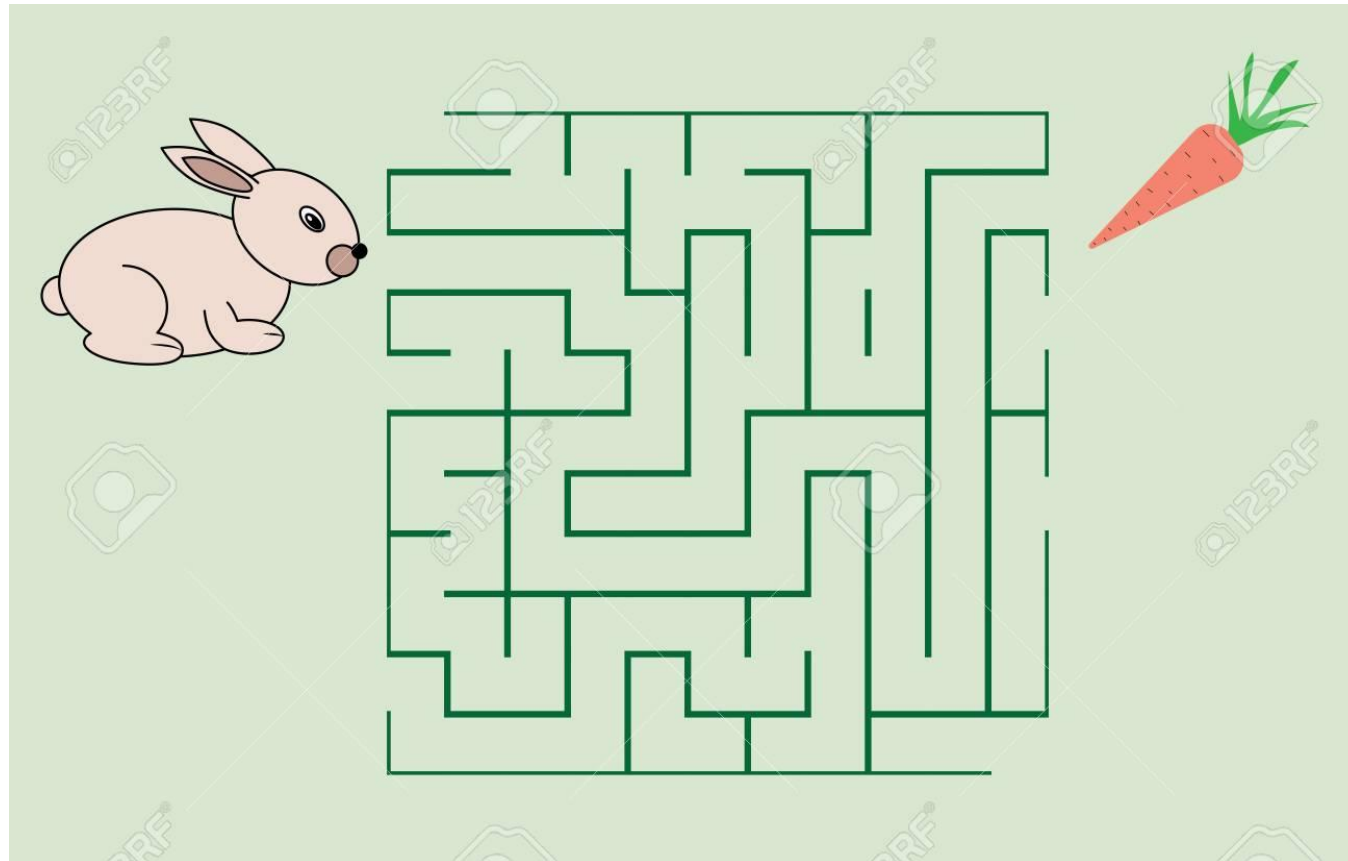


MAZE SOLVING LEGO TRACKER



M.TECH SCA - IITG

WHAT IS A MAZE ?



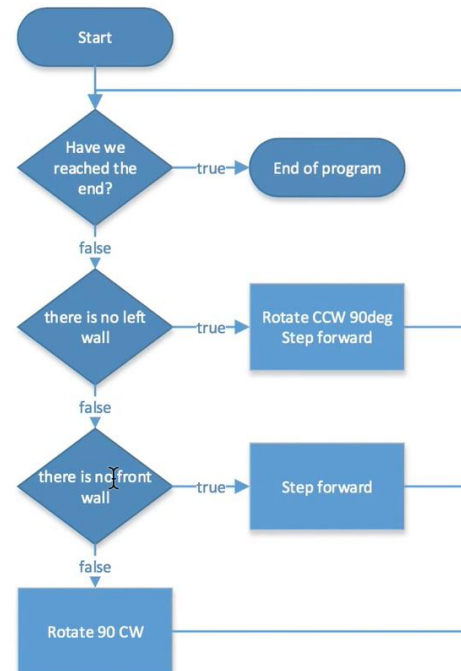
“A maze is a **path** or collection of paths, typically from an **entrance** to a **goal**”

HOW DO WE SOLVE MAZE

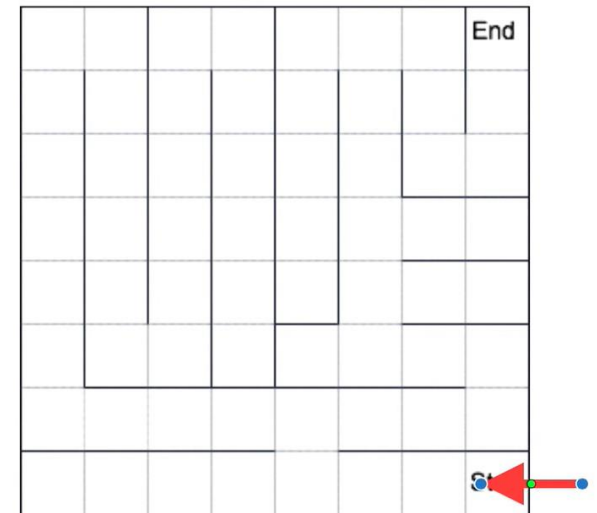
1. Random Mouse Algorithm
2. Wall Follower Algorithm (**Left** or Right)
3. Pledge Algorithm
4. Tremaux's Algorithm

Source:
<https://www.robomind.net/downloads/Maze%20solving.pdf>

The following flowchart describes how to move through a perfect maze using the left hand rule algorithm.



Sample Perfect Maze



WHAT ARE WE HAVING NOW

- A **modified** LEFT algorithm
- Minimal number of sensors
- If “Narrow Dead End” – take a sharp U-turn
- Always keep a safe distance from the wall

Hardware



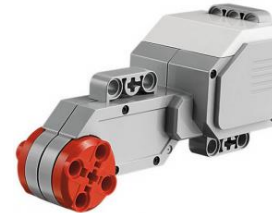
Colour sensor



IR sensor



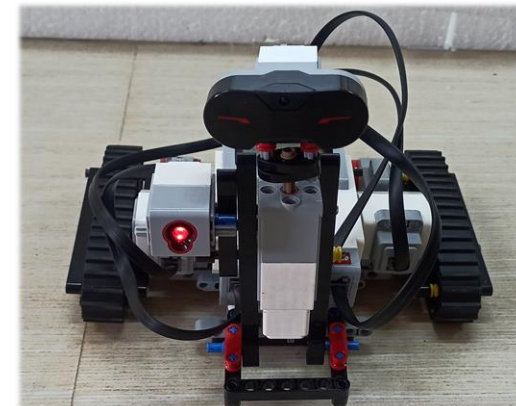
EV3 Brick

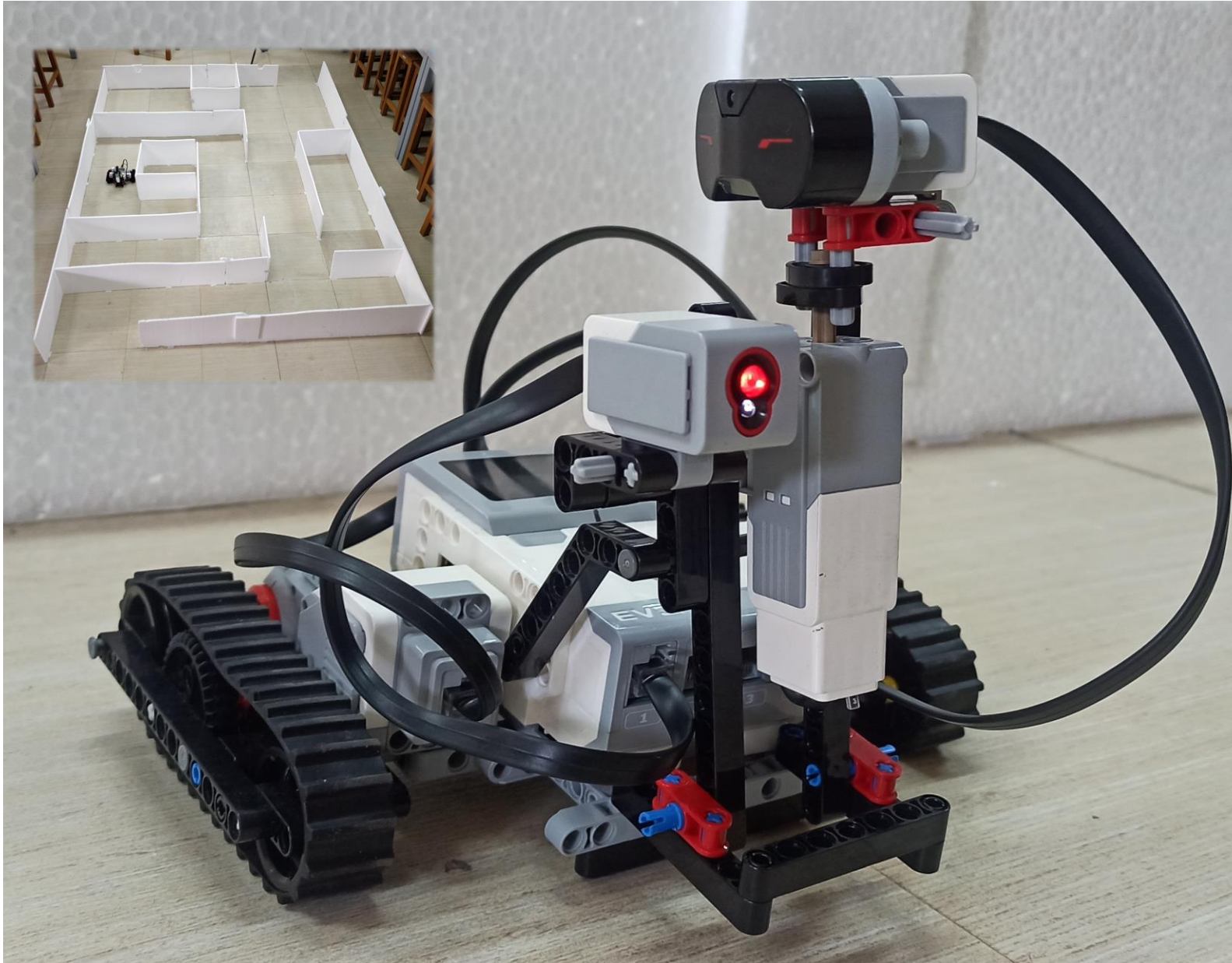


Large Motor



Medium Motor





ROBOT IN ACTION

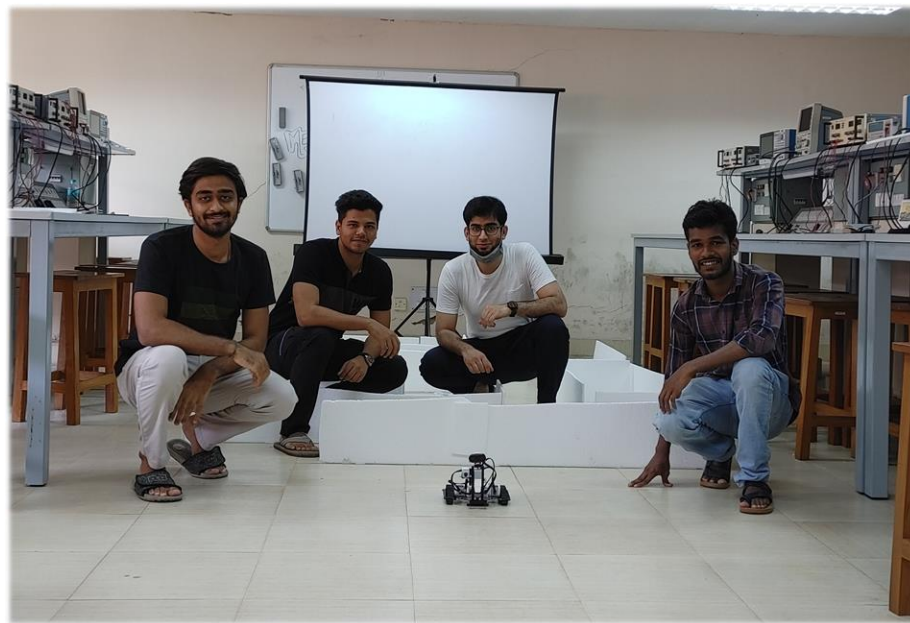
Video Link:

https://drive.google.com/file/d/1HxgdRcCBR_BfCeNd7uom_RddVcxjhWT33/view?usp=sharing

Github Link:

<https://github.com/nikhilnnk/MazeSolving>

TEAM





THANK YOU SO MUCH !!

