Sceintific project
on
Automated Guided Vehicle(AGV)

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Agenda

- Introduction
- Motivation
- Conceptual Design
- Implementation
- Design problems and Limitations
- Conclusion
- Demos

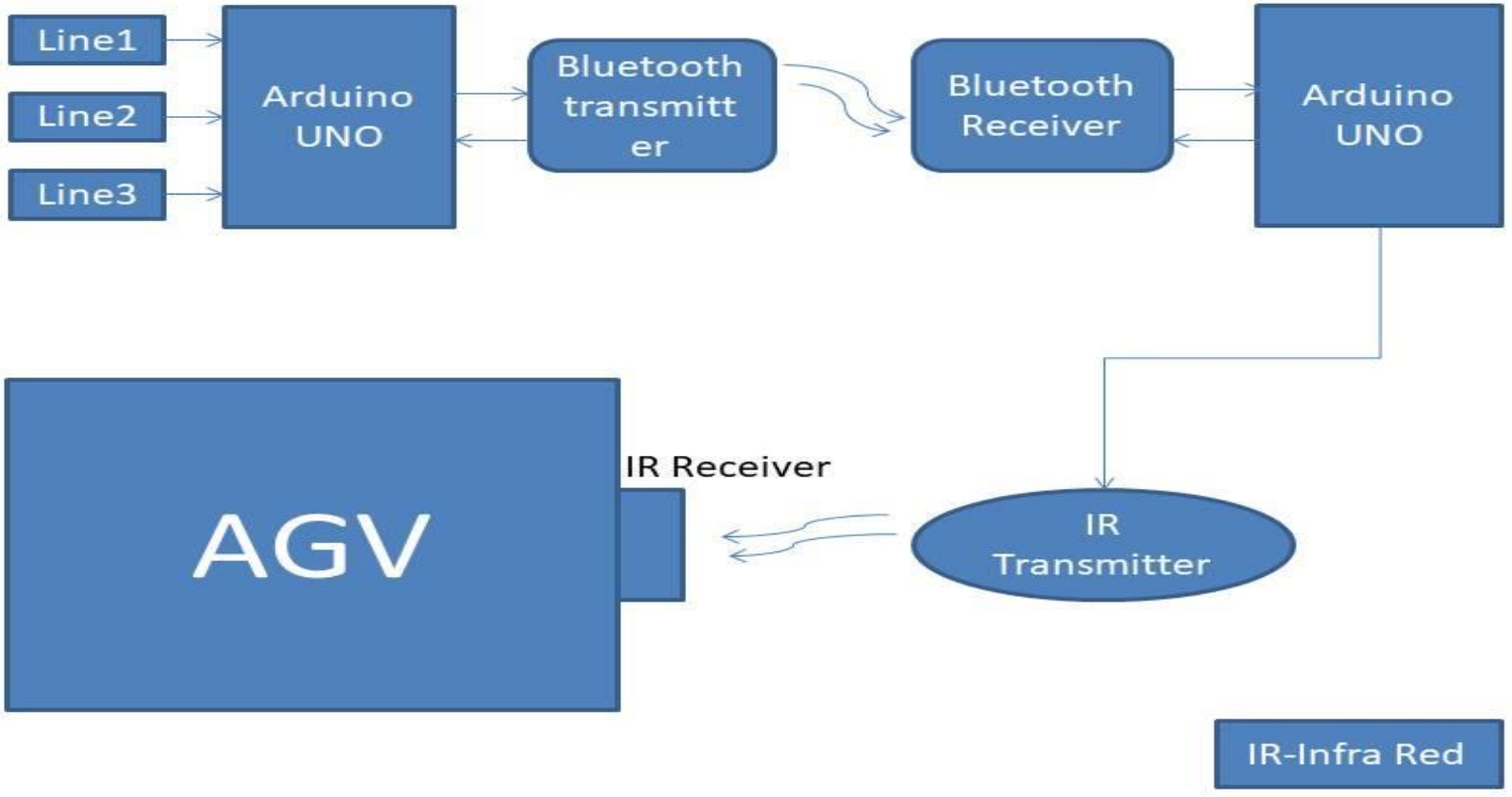
Introduction

- The central idea of our project is to build an intelligent vehicle in smart industry
- Communication between AGV and conveyor systems
- Bluetooth and IR communication
- Obstacle avoidance

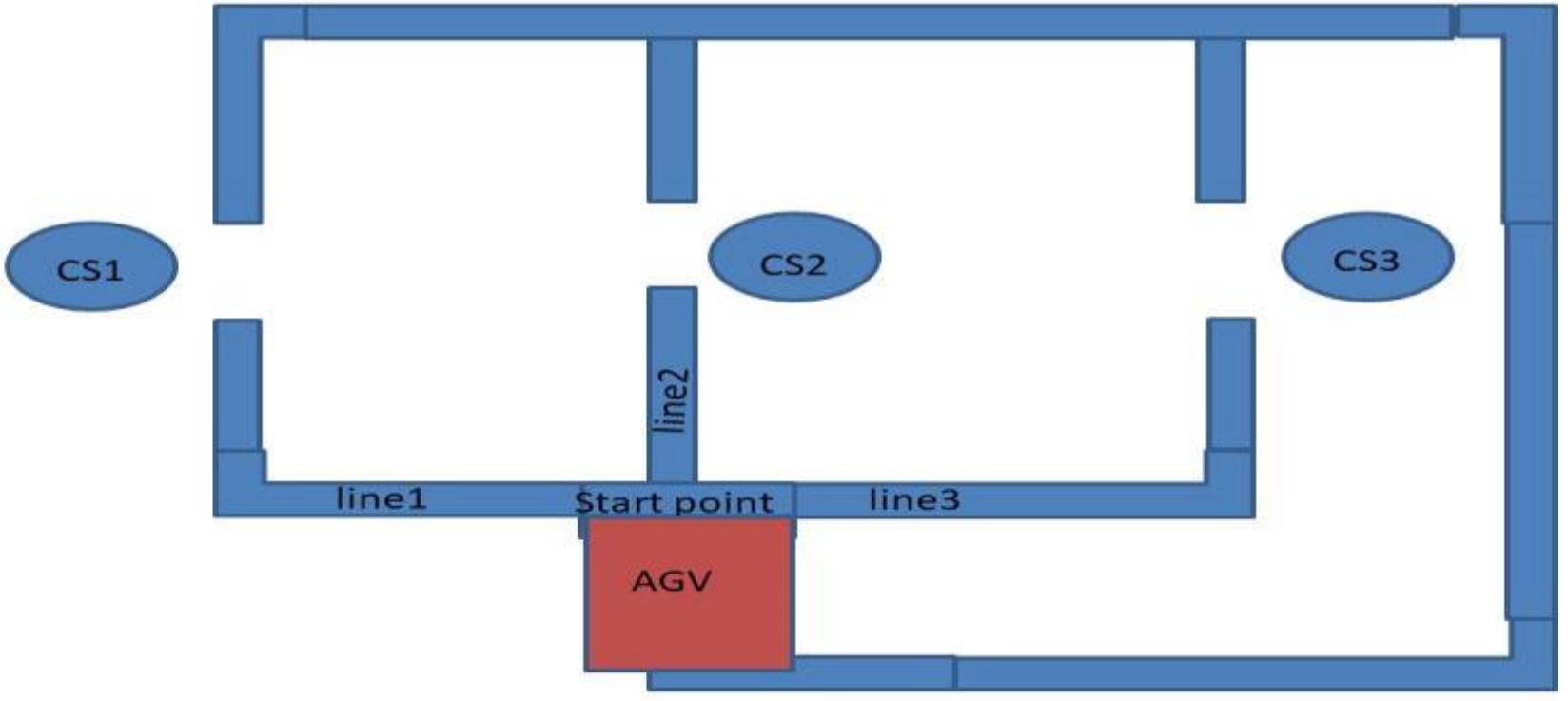
Motivation

- Implementation of advanced technology in industry
- Decrease of production cost
- Exploring new ideas to improve industry automation

Conceptual Design of AGV



Conceptual Design of Path prototype



CS-Conveyor System

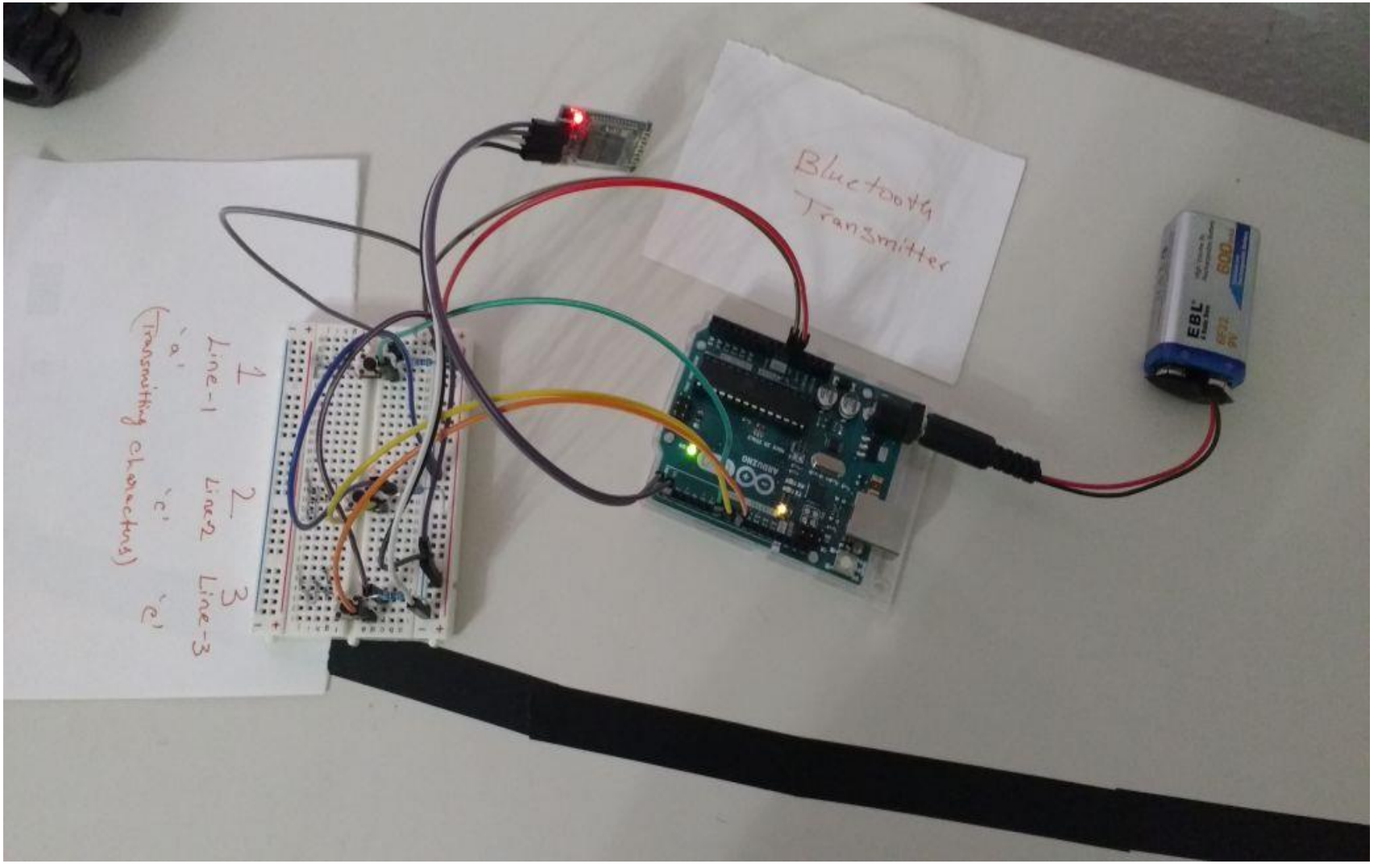
Implementation

- Communication Protocols
- Central Master Transmitter
- Slave Receiver on top of AGV
- Implementation of AGV

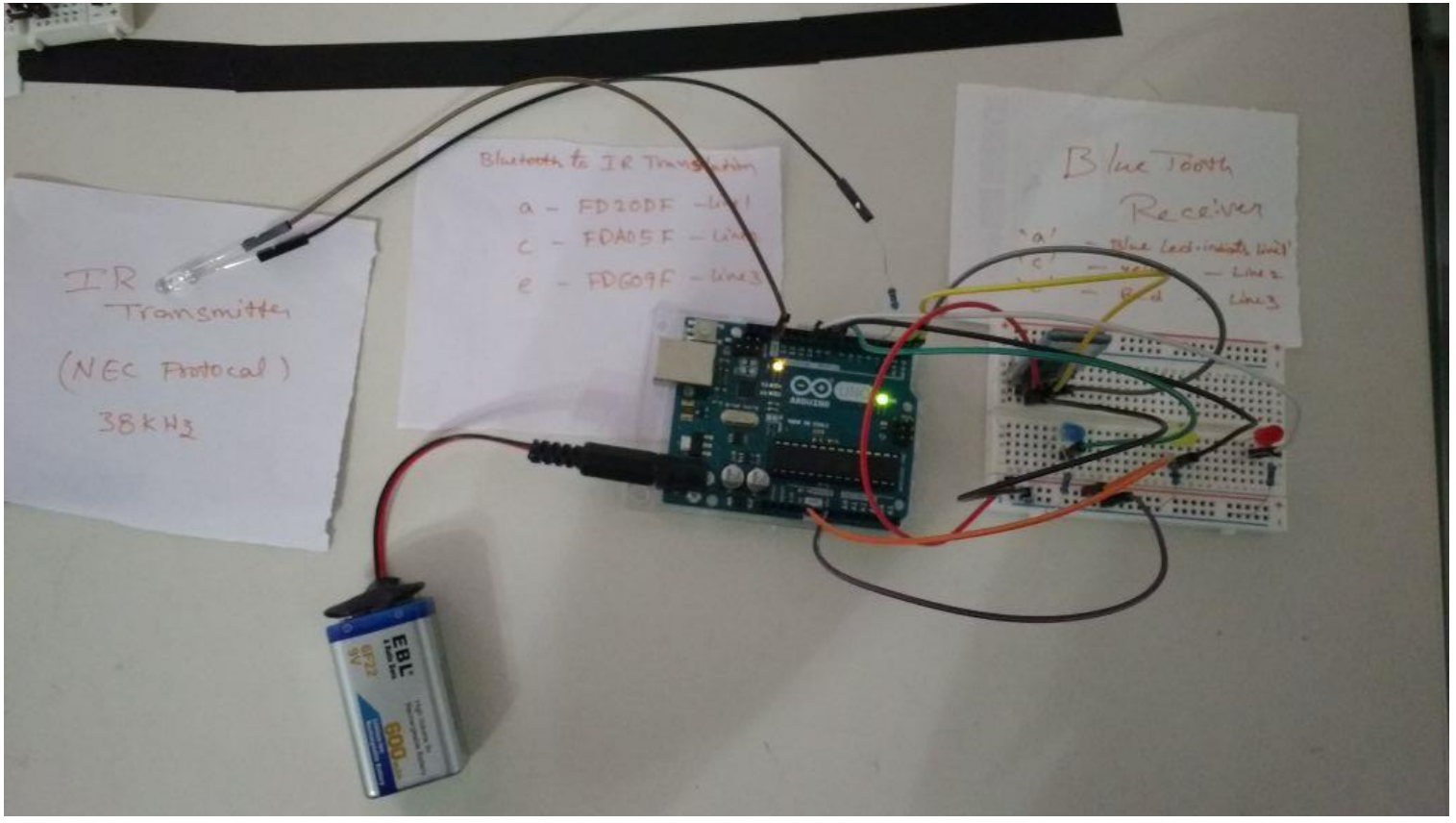
Communication Protocols

- Bluetooth communication
- IR communication

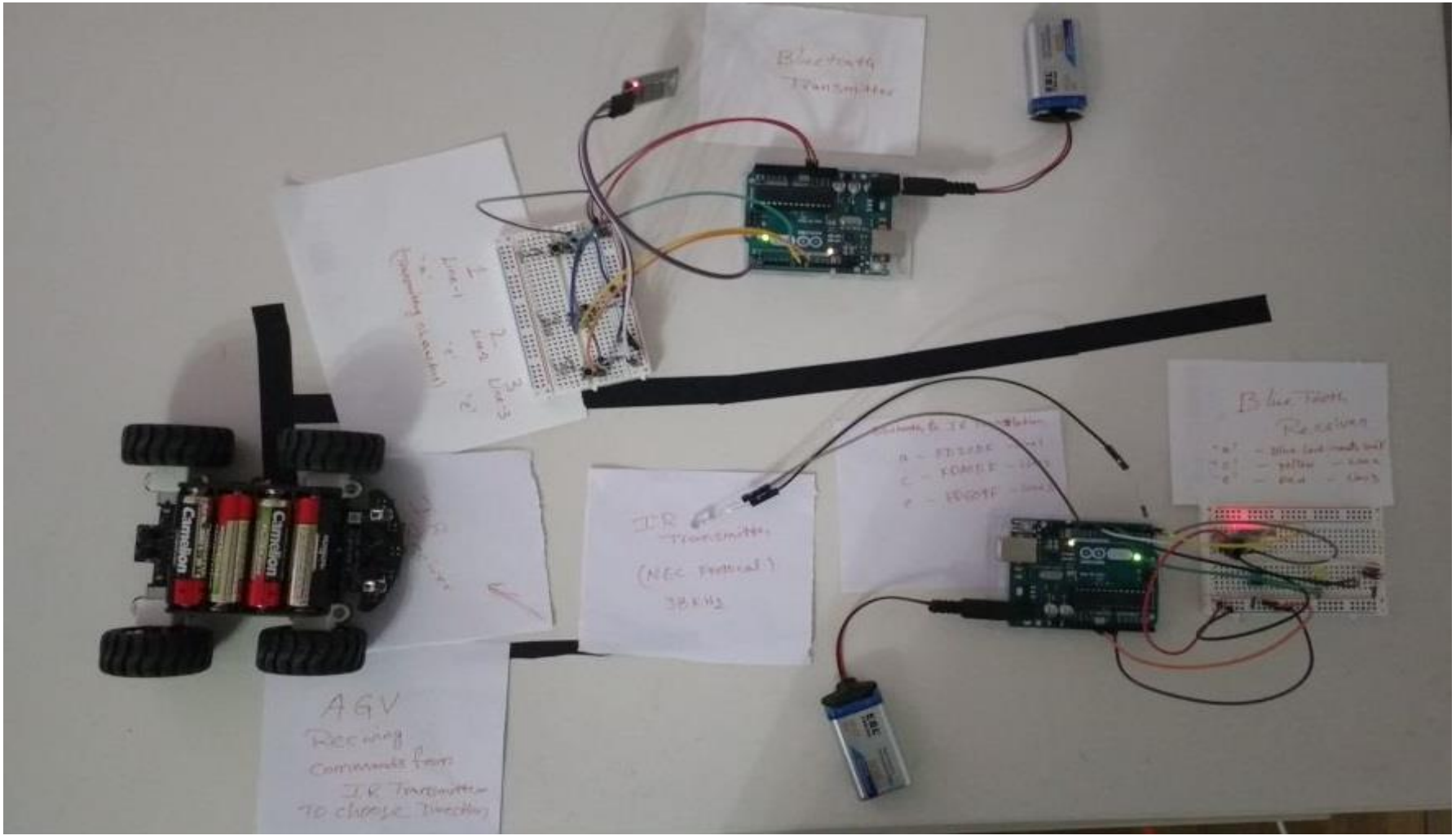
Central Master Transmitter



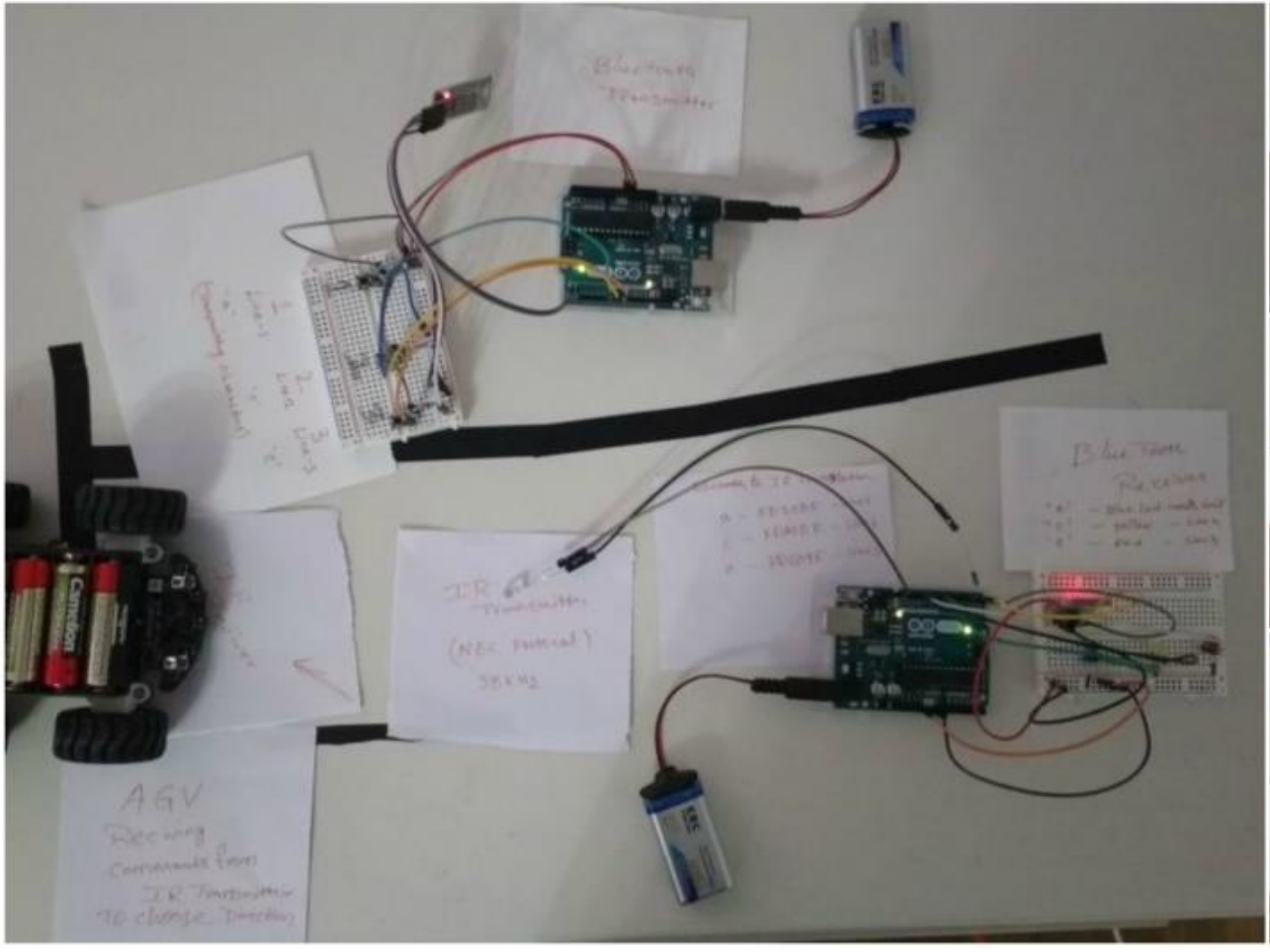
Slave Receiver on top of AGV

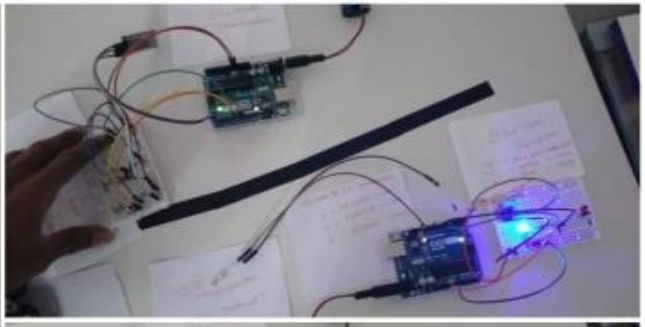


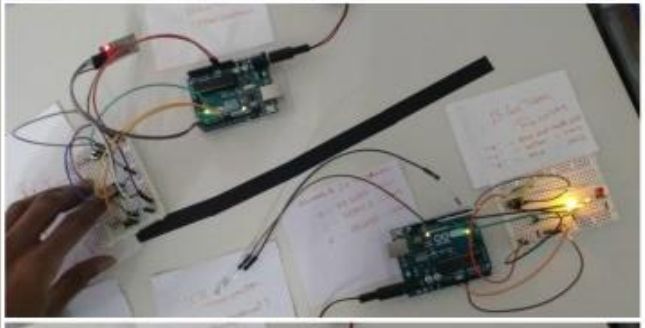
Implementation of AGV

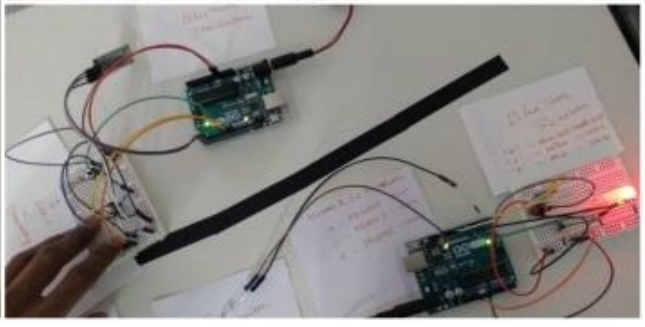


Complete setup of AGV

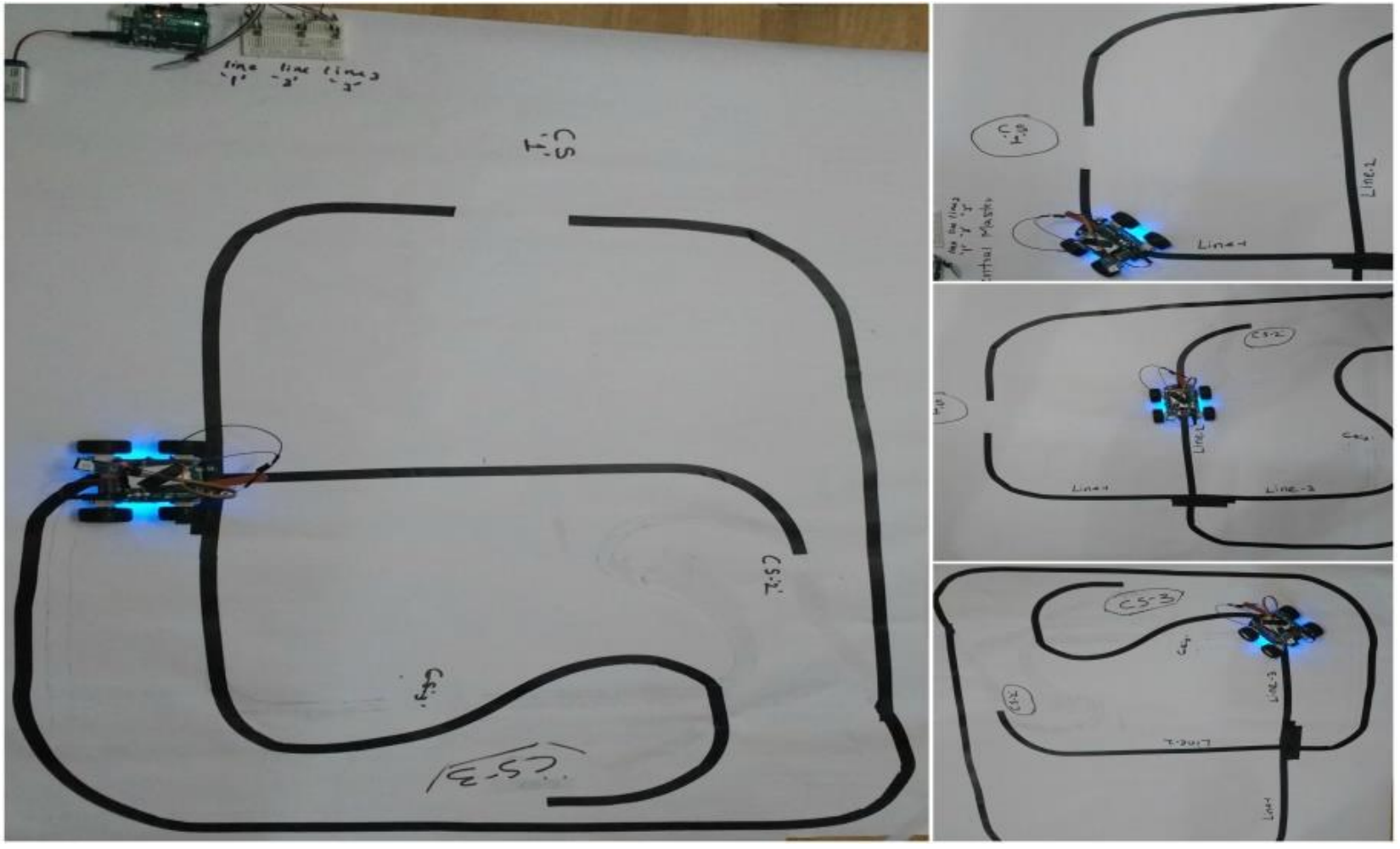








AGV serving different conveyor systems



Design Problems and Limitations

- Obstacle Detection
- Battery
- Low range sensors

Conclusion

- Conveyor systems can communicate with AGV
- AGV responds to Command from Central Master
- Navigate to start point
- Obstacle detection is possible without IR communication

DEMOS

Thanks for your attention!