SMART RESTAURANT

INTRODUCTION :

This project is primarily utilized in restaurants (our demo). It helps reduce the workload for labor, such as waiters. Here, a line robot takes on the role of a waiter to serve dishes. These robots serve food, and even keep track of what's in the kitchen. The work of taking orders is automated using RF-transmitter and receiver circuit. Then robot receives dishes and delivers to respective tables following black line.

USECASES/APPLICATIONS :

- Eliminates user error
- Works with limited staff
- Improves customer satisfaction

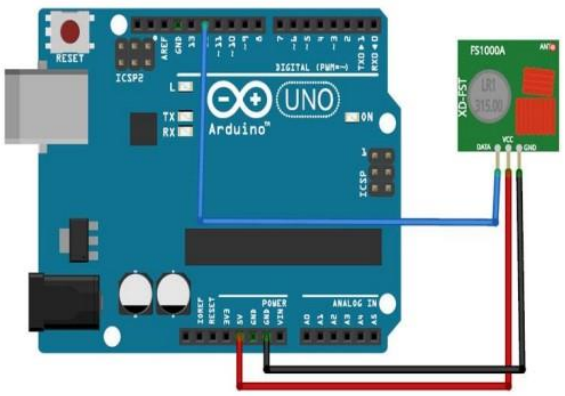
SENSOR DETAILS :

- **IR Proximity sensor :** It is used to detect the direction of the robot. There are three sensors: one to detect the left direction, another for the right direction, and the other one to detect the end of the table to reach the destination.

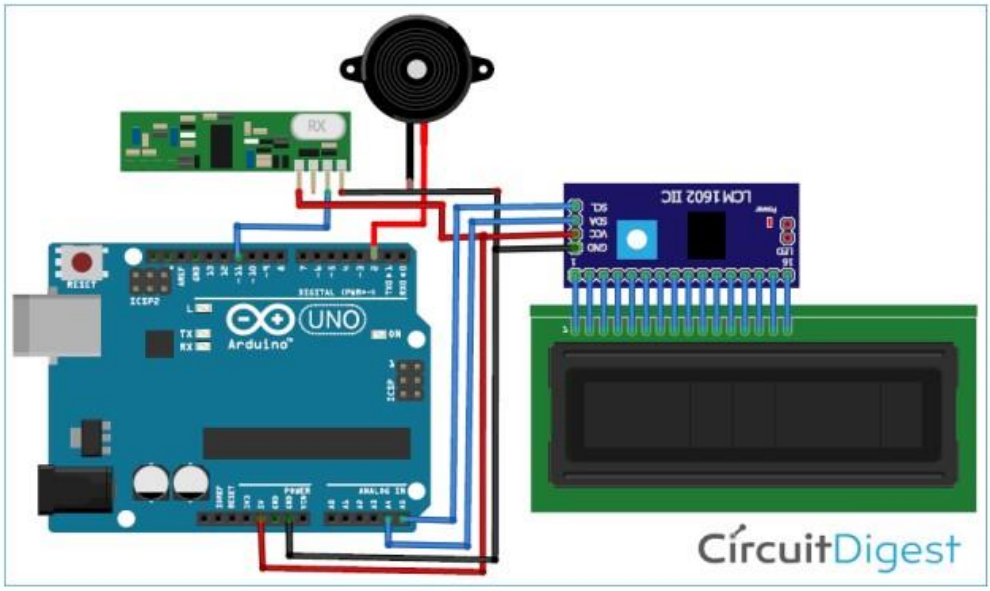
Block Diagram :

1. **RF Transmitter circuit with 4x4 matrix keypad:**

Fig 2.10 4×4 Matrix Keypad



2. **RF Receiver circuit with LCD screen:**



3. **Line robot circuit :**