**Shortest Distance Algorithm Logic**

* The audio signals around are thought of as a substation to help direct the rescue robot and to maintain orientation.
* Pickup audio signals from the four different frequencies channel of audio signals.
* Calculate distance from the frequency channels by calculating the time and velocity it takes to get a response when a test signal is sent to them.
* From the distances calculated, the robot will follow the frequency channels close to the object to be rescued.
* Orientation is maintained by saving the distance it is following regularly (ideally every 10 seconds) and it simply reverses back to this distance when it encounters and obstacle that is not driveable in.
* Then it disconnects from the main frequency it was following to avoid ending up in the same situation again.

P.S. We want to try this first before implementing the A\* algorithm which is based on Dijkstra algorithm as we already know that this will work.