There will be small robot which is capable of moving left-right, front-back. The user will call it by a name and the robot will reach him inside a room based on the user’s call.

• The whole ceiling will be divided into small blocks like a 2D matrix

• Each block should have a microphone at every corner of each box.

• When the user will call the robot, by using voice recognition we will check the level of all the blocks to determine the user’s position.

• The robot will communicate with the main computer via Bluetooth to know its movement.

• The robot uses encoders to determine its movement.

* We are using windows/linux PC for central processing.
* Microphone (A lot of them )
* Arduino Robot which will be the voice follower connected with Bluetooth with the pc (This includes: encoder motors, tracked wheels, Arduino uno, Bluetooth hc04, servos-pan&tilt, sonar sensor-object avoidance(optional))
* For medical Support
* Home Assistance
* All the sectors where there is a use of indoor positioning,

There will be small robot which is capable of moving left-right, front-back. The user will call it by a name and the robot will reach him inside a room based on the user’s call.

The system developed consists of a grid of microphone sensors and is connected to a development embeded board Arduino.

This takes in the sensor outputs and monitors which microhpone area receives the most intenese sound.

Depending on this the indoor positioning is estimated. The indoor positioning is then transferred to a raspberry pic (A single board computer)

Which calculates the path to the given destination and directs the robot according to that. During navigation it takes in feedbacks using the microphone grid,

to navigate the robot accurately.