Indoor Positioning System General Readme

Required Files

client.c

server.c

Prerequisite

-One or more computers with Debian based distribution with bash

-At least one computer must have Wireless Interface Card

-In the client.c replace wlo1 in getSignal with your own computer's wireless interface card name (Name of your card can be found using ifconfig)

-All machines must be on the same Local Area Network

For server and client software on the same machine

-Change the the remote_server.sin_addr.s_addr address to the loopback address in client.c
(If running on different machines, use the remote server’s ip)

For full speaker control

-Run alsamixer at the terminal prompt(of server pc) and figure out what speaker ports you can turn on/off.

-Make sure auto muting is disabled

-Hook up speakers to controlled out ports discovered from alsamixer

-In the setSpeakers function in server .c uncomment out the code and replace the amixer sset to your appropriate outputs 0 and 100 signifies off and on.

-Location settings can be set by varying the decibel value in the if statement. You can vary it based on your setting.

Compiling

gcc server.c -o server
gcc client.c -o client

Running

./server
./client

Android App Client

-The android app acts as another client software that connects to the speakers. This app is only to show how a mobile version of the client software can potentially work. Note that the code in the app does NOT pull decibel values from its wireless interface card. It randomly generates decibel value to send. To use the working user tracking software, you must use the client.c for tracking.

-More information for the app in the app documentation

Wait there is more…
-Complete Documentation in IPS Documentation folder