



## Smart Lighting

We carry our smartphone with us all the time. So it would be helpful if the phones can automatically control the lights in the room that we enter and turn it off if no one is left in the room. This way energy can be saved and it is more convenient for the user.

Since the microphones of smartphones are capable of receiving ultrasound signals, we are interested in implementing such a system using ultrasound waves to detect the presence of the user in the room. Beacons are placed in the room that emit or receive ultrasound waves.

The goal of the project is to implement a system that can reliably detect the presence of the smartphone in a room and directly control the correct light sources.

We have some ideas on how to approach this task, but we would love to hear your take on this as well! If this sounds interesting to you, do not hesitate to contact us so we can have a chat.

**Requirements:** Hardware and programming experience is an advantage. There will be weekly meetings with your supervisors to discuss progress and open questions.



**Interested? Please contact us for more details!**

### Contacts

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