



# IntelChair

Project in Informatics Engineering 2018/2019

Mid Semester Presentation

## Group 7

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# Context

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In a working environment people need to move from place to place

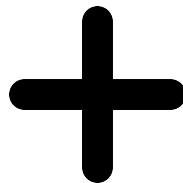


While doing so, they waste time and energy

# IntelChair



Motorized Wheelchair



Laptop



RGBD Camera



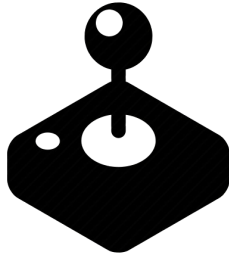
Laser Rangefinder



Inertial Motion Unit

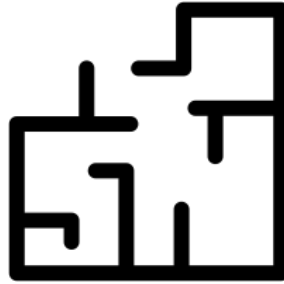
# Main Features

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## Manual Control

Through a joystick in the Mobile Application



## Room Mapping

With all available sensors



## Navigation

With a generated map and the sensors

# Extra Features

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## Voice Control

Through the Mobile Application



## Follow User

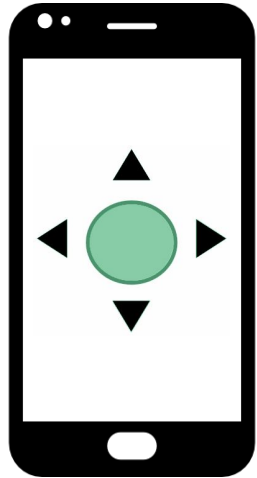
Using the camera in the front



## Object Avoidance

Avoid objects that are not present  
in the map

# How it works



**Smartphone**  
Mobile Application for the user

## IntelChair



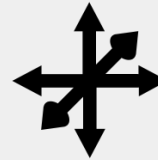
**Laptop**  
Links all system nodes



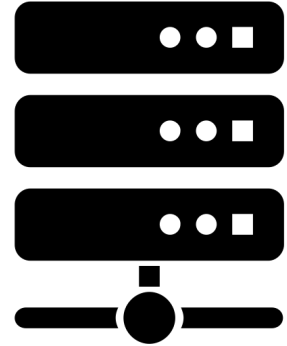
**Rangefinder**  
Room Mapping



**Kinect**  
Object Detection



**IMU**  
Odometry Generation



**Server**  
User access and Map management

# How it looks

