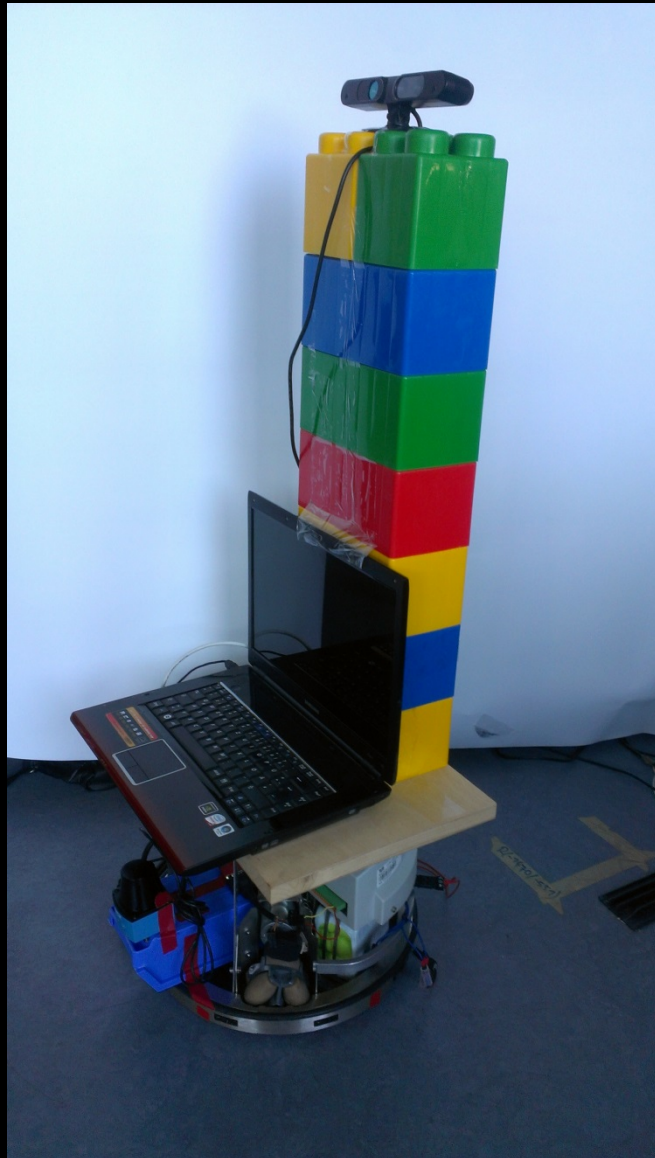


Robotino the Follower



Group Wurzel

Tianlan Shao

Max Fiedler

Emilija Markovska

Sensors:



□ RGBD Sensor (Asus Xtion)

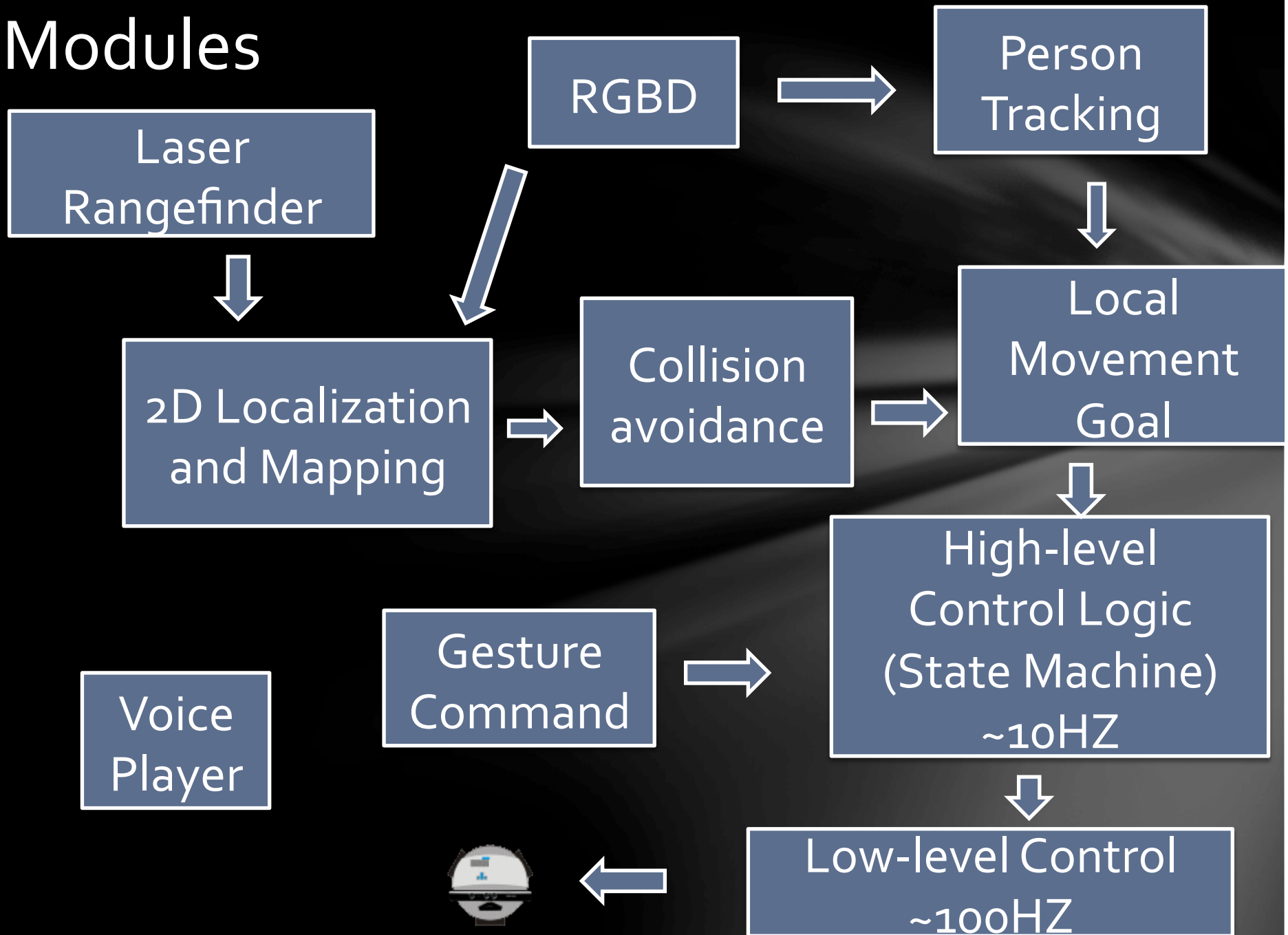


□ Laser Rangefinder

Achieved goals:

1. Person tracking / following
 - To Robustly follow a specific person (closest to Robotino)
 - Using OpenNI
2. Building Occupancy Map
3. Obstacles-Collision Avoidance (while following)
 - Obstacle detection (using laser scanner)
4. Gesture recognition ("come" & "stop")
5. Voice Reactions of Robotino

Modules



Difficulties encountered

- Hardware
 - Laserscanner (some electric work)
- Different system time
 - Automatic time compensation
- Human tracking "afterimage"
 - Check change of transformation

Used Software/libraries

OpenNI (<http://www.ros.org/wiki/openni>)

ROS 2D Navigation Stack

(<http://www.ros.org/wiki/navigation>)

ROS Laser Rangefinder Drivers

(http://www.ros.org/wiki/sick_tim3xx)

Robotino ROS Package

(<http://www.ros.org/wiki/robotino>)

Espeak

...

Let's go to the Lab,
Robotino is waiting.