The multi robot transport project will be using decentralized control in the form of swarm behavior. In the project the transferring of parts between the robots will be researched. This can be used to optimize the flow of the products through the process.

The swarm will be a non-homogeneous set of robots, for example a reconnaissance robot equipped with a LIDAR or a robot specialized for transporting large parts and a robot specialized for transporting small parts. The standard parts of the robot shall not be adjusted.

The scrum method will be used in this project but there will also be a general planning.

For all the implementations safety will be researched using a risk identification and risk analysis.

The project will produce the following deliverables:

* Risk identification
* Risk assessment
* Risk reduction methodology
* Robot design
* Robot control system
* Description of robot logic
* Product loader
* Robot to robot transfer (simulated)
* Simulation

If it is possible within the timeframe of the project, then the following deliverables will also be produced:

* Robot to robot transfer with physical objects
* Safety measures according to ISO standards
* Product loader with physical objects