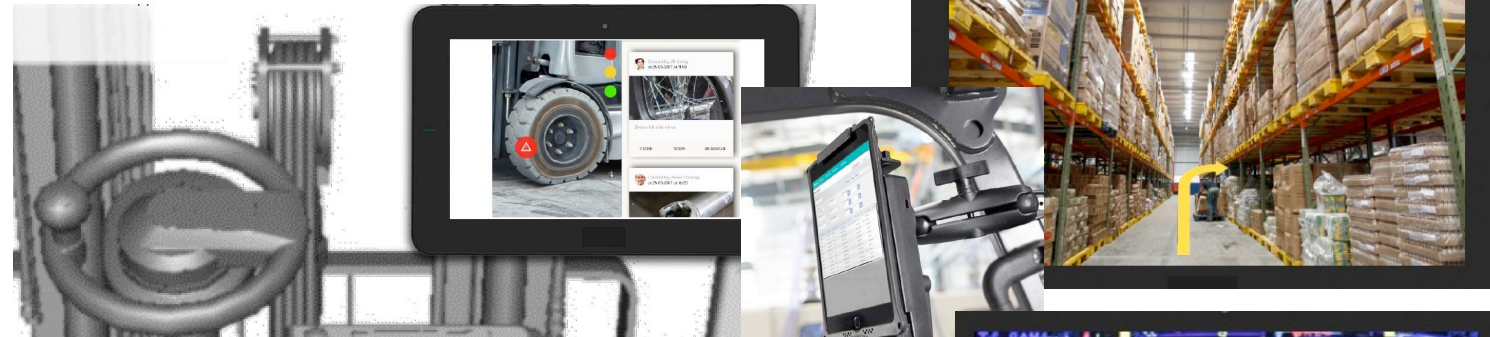


Lift Truck HMI + IoT Device

- Is based on a consumer tablet / smart phone instead of customized industrial PC or controller
- Combines IoT Device and HMI functions, smart vehicle display functions and warehouse material flow control UI
- Uses wireless (BT or WiFi) to communicate with lift truck CAN bus and control system

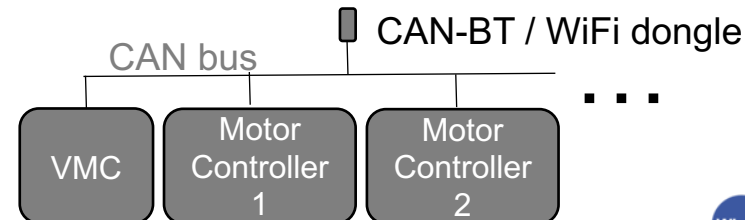
Scope, demonstration

- Mechanical installation & usability (for various platforms)
- Selection of hardware
- Tablet HMI / UI design and usability
- Business model
- Marketing demonstration



Scope, MVP

- Fingerprint / face recognition based operator identification
- QR code based lift truck identification
- Pre-operational safety check and fault / damage reporting UI
- Connection to lift truck control system (BT- CAN)
 - Operating hours, error log, parameter set up etc.
 - Utilizes existing software components of the service tool
- Collision detection and reporting based on the shock sensor of the tablet



Stretch objectives

- Fork & surround view camera + possibly AR function (e.g. pedestrian, obstacle, or pallet detection)
- Video recording and saving clips in case of detected collision or other abnormal event

