

Januar 2021



August 2017



März 1929





AUTOMATED TESTING

Infotainment

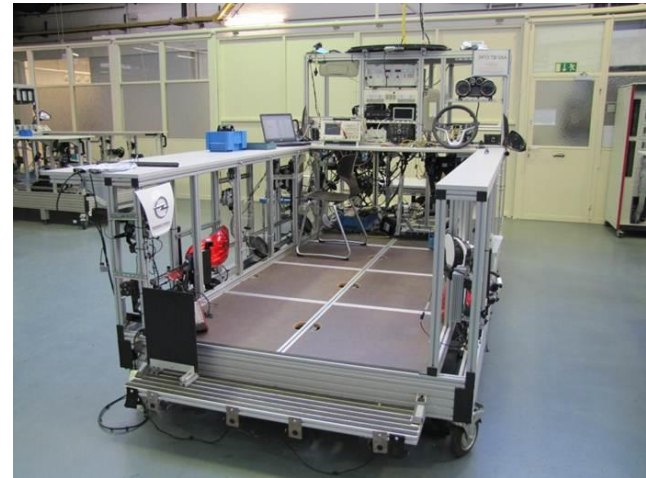
Volker Rabich

Test Automation & System Development

CONTEXT



- **PSA / Opel**
- **Testautomation and System Development**
- **Test of vehicle functions**
Vehicle Acces, Windows, Light, Theft Deterrent, ...
- **Infotainment**
Radio, Navigation, Mirroring, UI, ...
- **Test facility: lab**
Bench
- **Integration testing**
Vehicle level
Black Box Testing



INFOTAINMENT INTERFACES



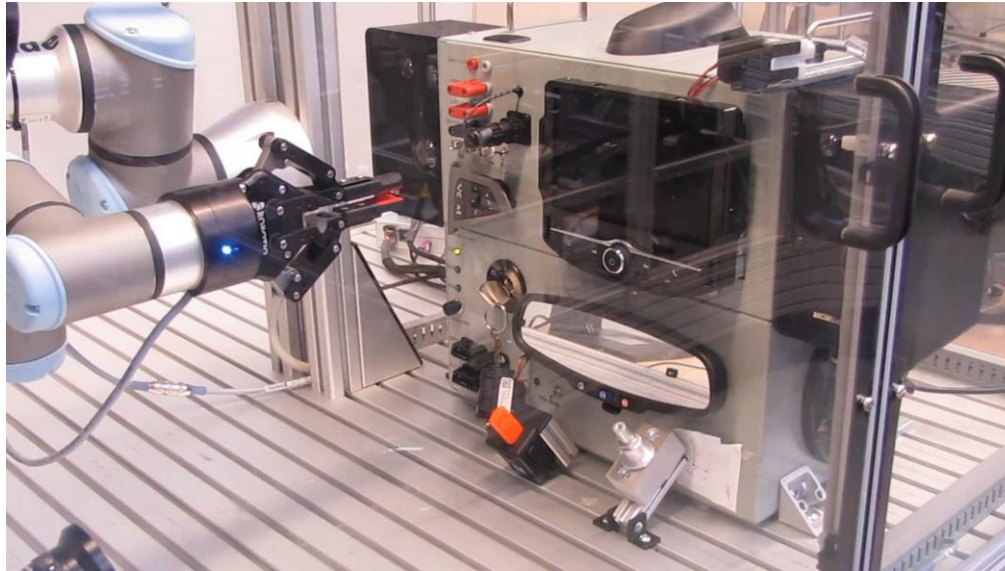
● touch



● listen



● speak



TOOLS



- **UR3 Robot:** press button, turn key, touch and swipe, plug/unplug USB sticks. Also for mobile devices.
- **Vision Master:** camera/LVDS detects UI elements, OCR, find text/ symbol
Also for mobile devices.
- **Speech Master:** Text-to-Speech (synthetic & database),
Speech-to-Text (Microsoft SAPI)
- **Sound Master:** recognition of chimes, song, mute, noise
- **IZT:** antenna signal simulation
- **GNSS:** GPS simulator



CUSTOMERS DO NOT WRITE SCRIPTS



Customers:

Seat, Airbag, Aharging, Climate, Light, ..., Infotainment

Scripting:

This is an IT job - can not be done by customer

→→→ Customer has no access to automation ← ← ←

Solution:

Model based system description to generate test scripts

Sample Project:

Infotainment Test

CONTACT



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TASKS



- Familiarization with current work process
- Selection of suitable tools
- Creation of a draft solution
- Implementation of the draft

- Prerequisites
 - Programming skills (preferably Java or C#)
 - optional: first experiences with UML and similar