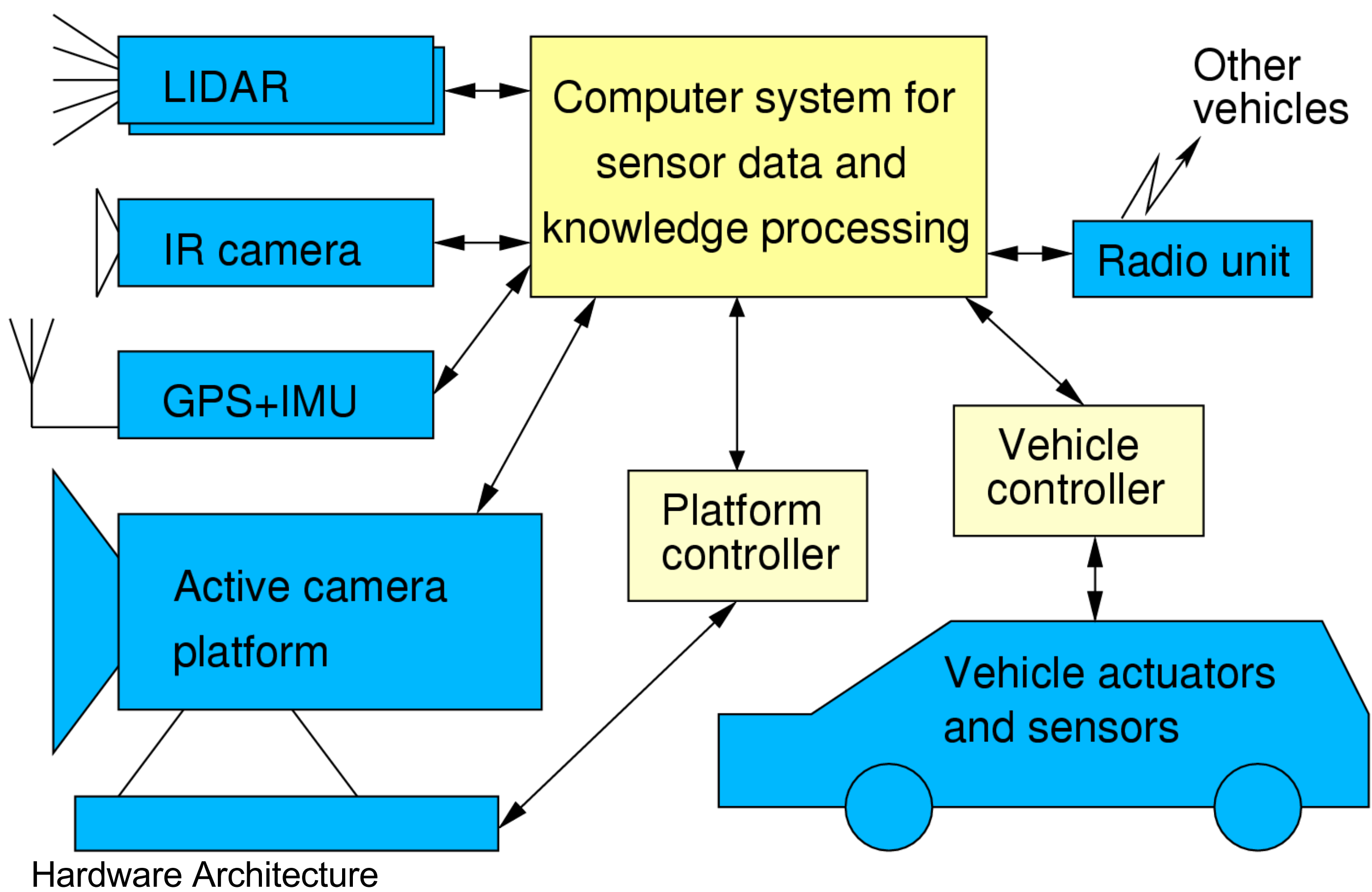


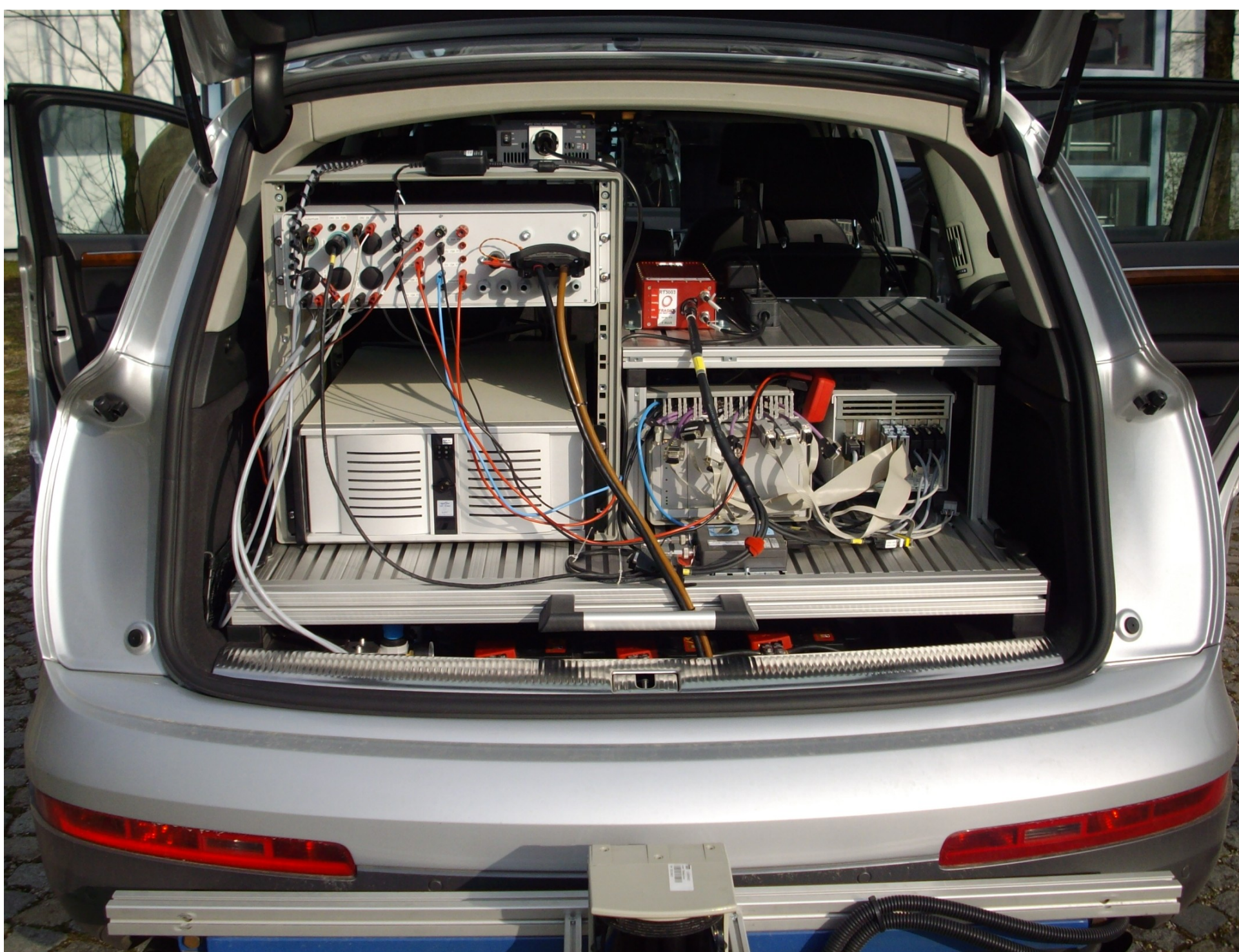
Design and Capabilities of the Munich Cognitive Automobile

Matthias Goebel^(RCS), Matthias Althoff^(LSR), Martin Buss^(LSR), Georg Färber^(RCS), Falk Hecker^(TAS), Bernd Heißing^(FTM), Sven Kraus^(FTM), Robert Nagel^(LKN), Fernando Puente León^(VMS), Florian Rattei^(RCS), Martin Russ^(TAS), Michael Schweitzer^(TAS), Michael Thuy^(VMS), Cheng Wang^(FTM), Hans Joachim Wuensche^(TAS)

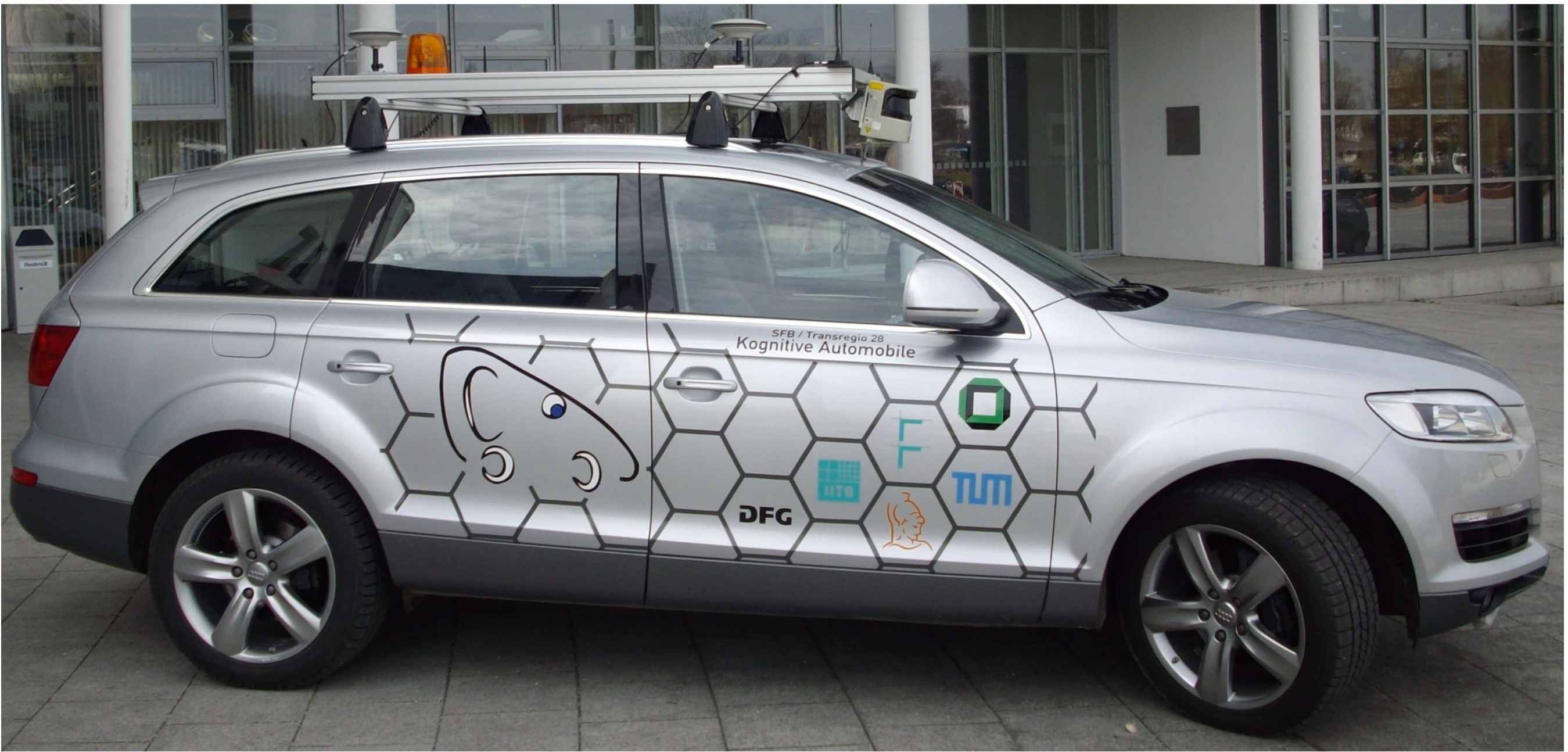
Vehicle and Hardware Architecture



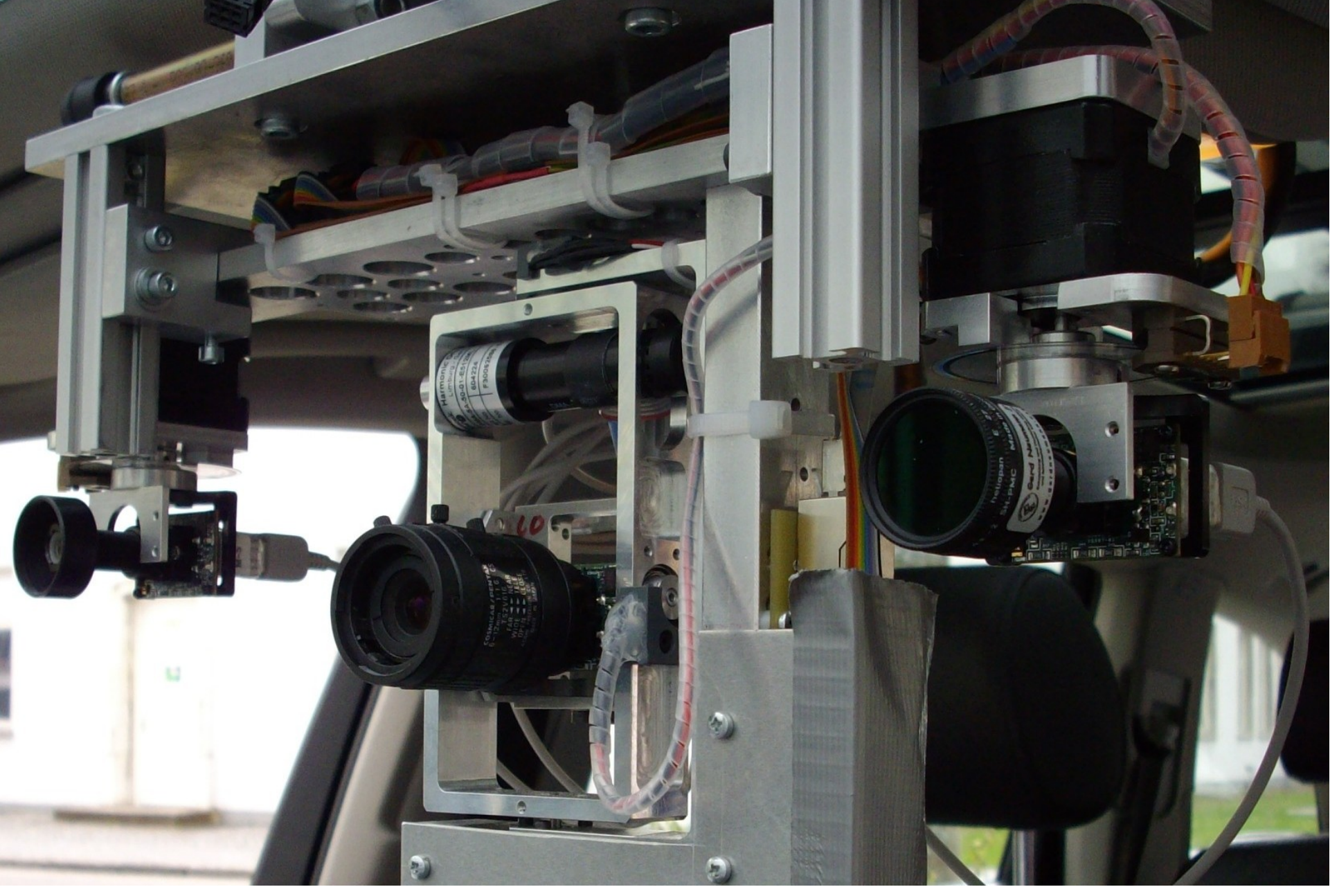
Hardware Architecture



Trunk with Power Distribution, Computer System, INS, Controllers

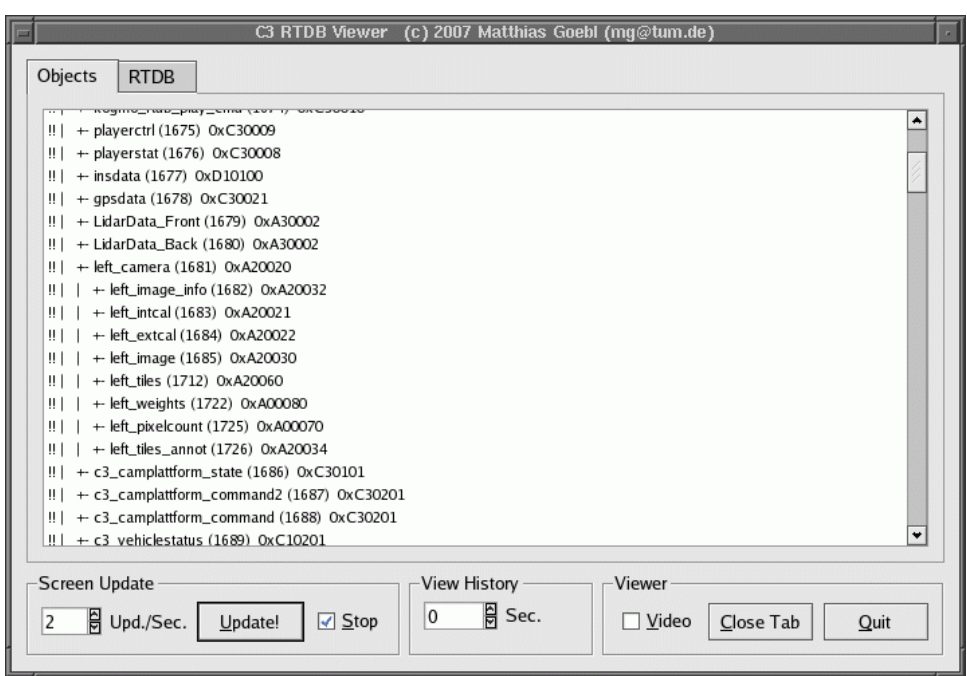
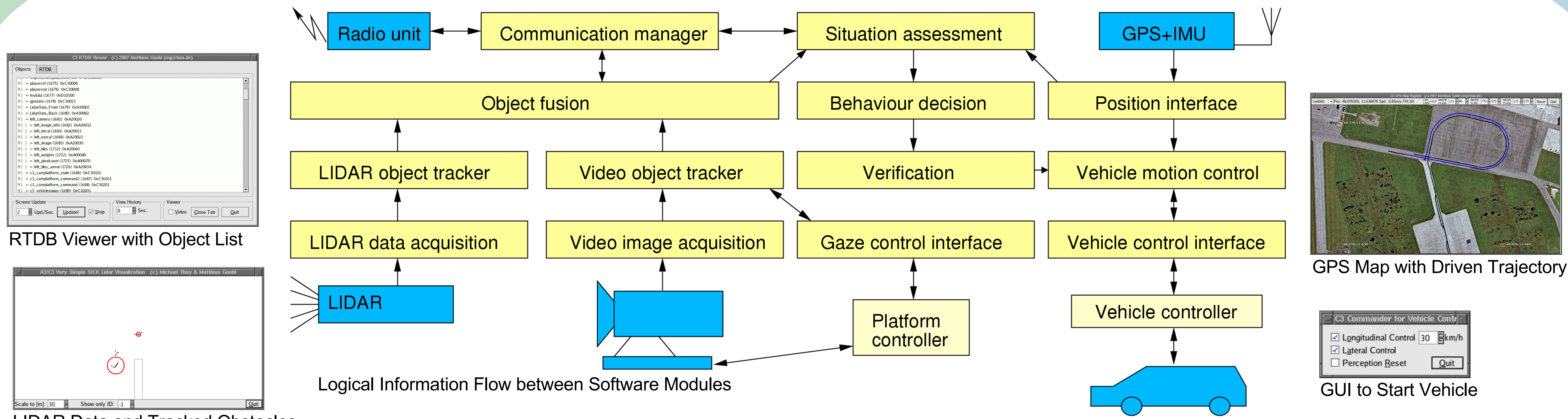


Experimental Vehicle: Audi Q7 (Diesel 3.0l, YOC: 2006)

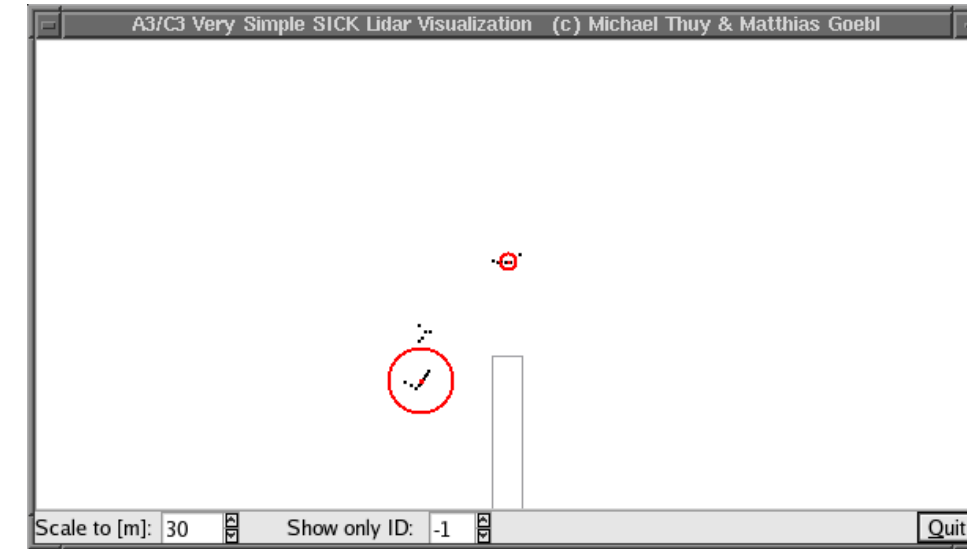


Multifocal Active Camera Platform with Inertial Stabilization

Functional Architecture and Software Modules



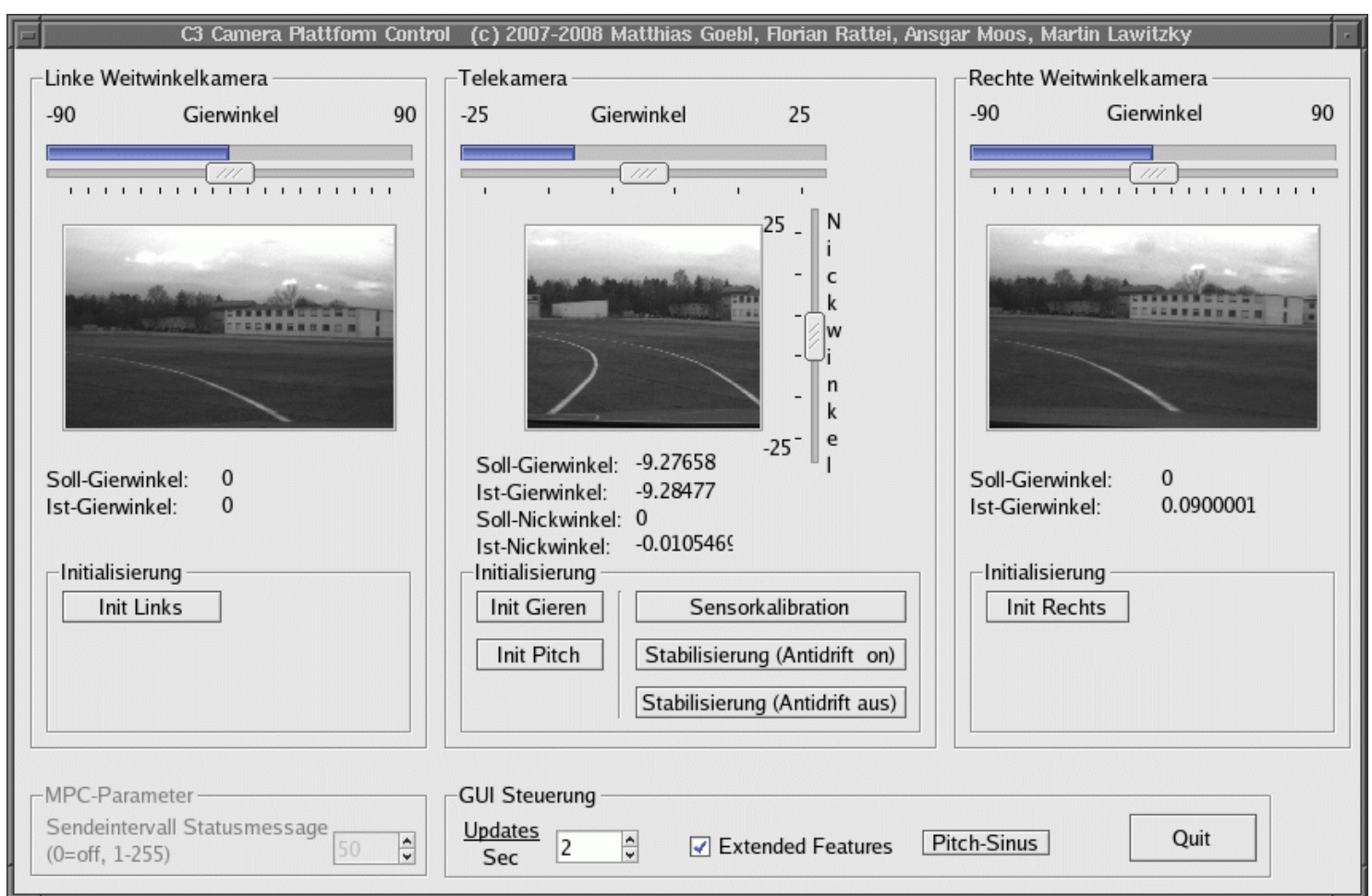
RTDB Viewer with Object List



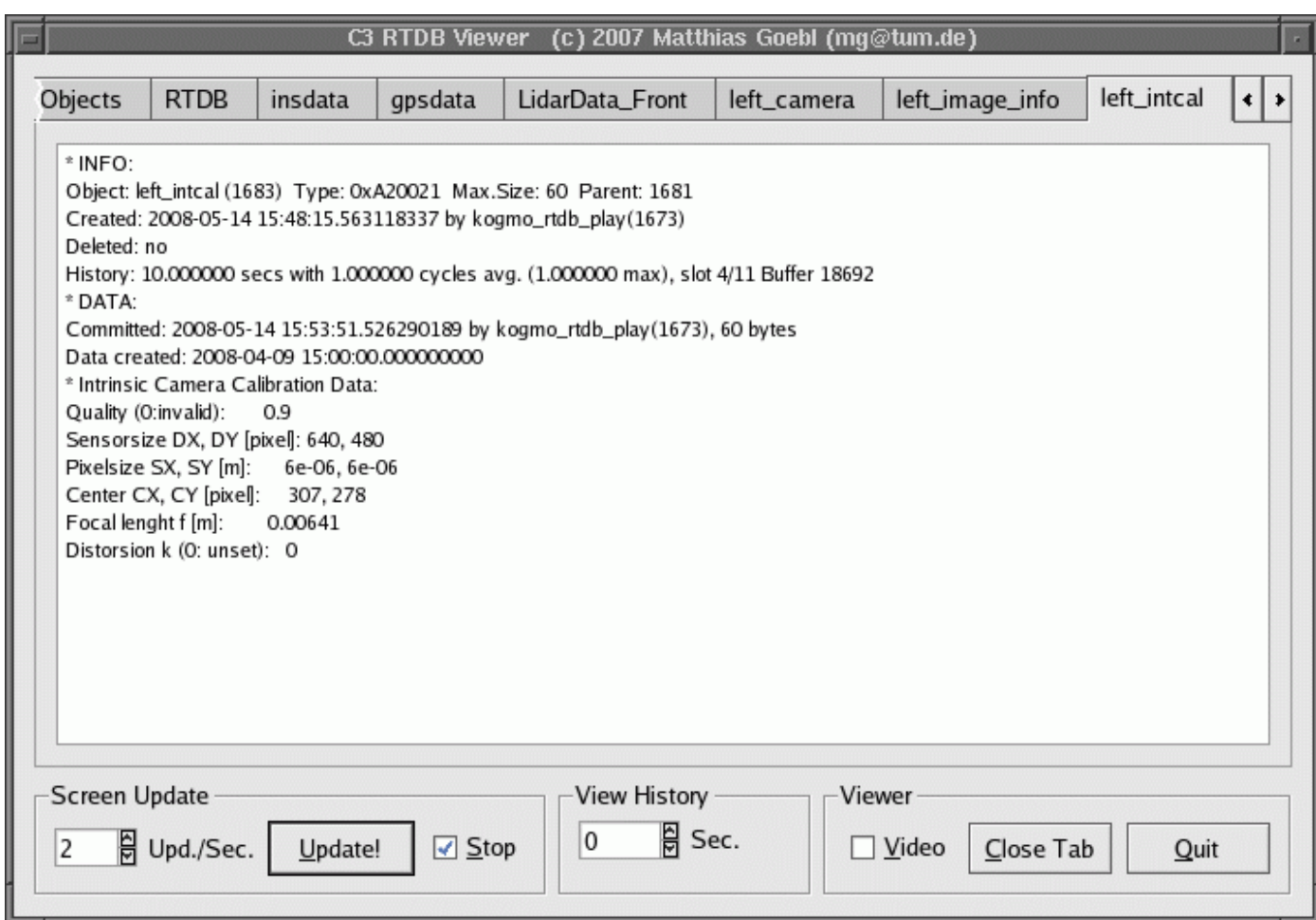
LIDAR Data and Tracked Obstacles



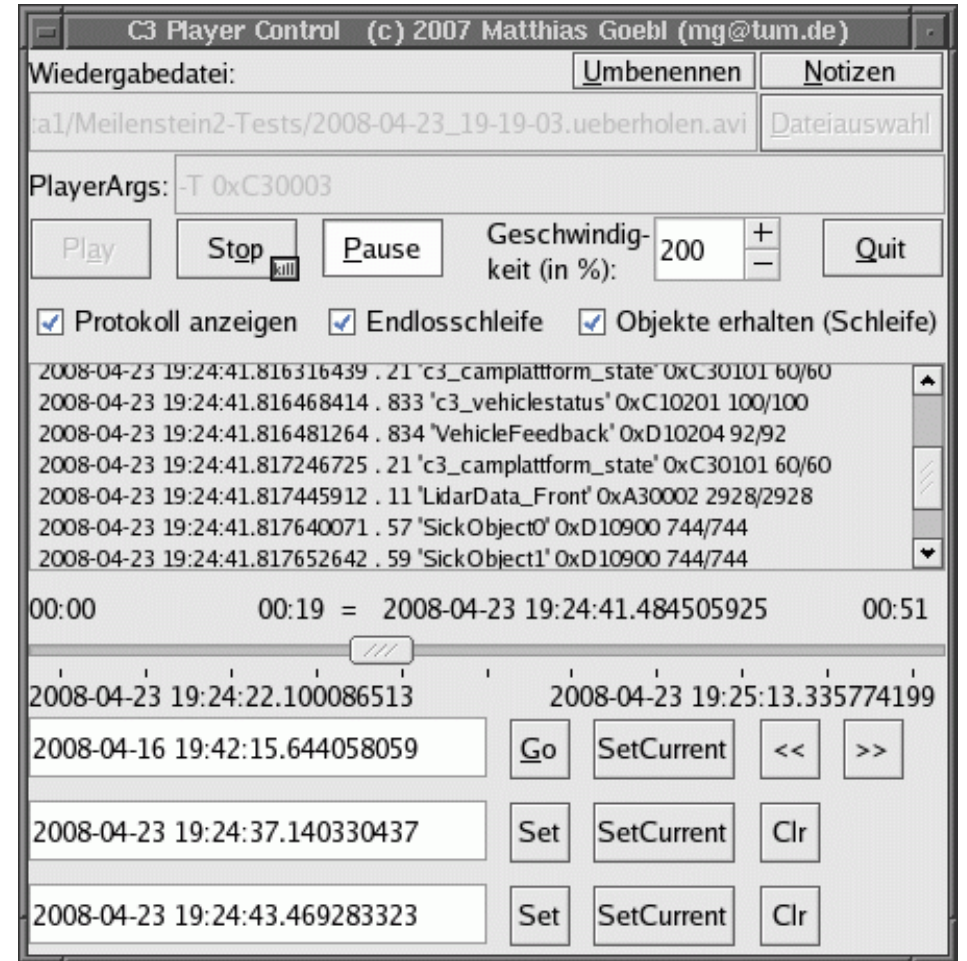
Video Streams & Visualization Overlay



Control of the Active Camera Platform



RTDB Viewer with Intrinsic Camera Calibration



RTDB Player with Log View