



MPL AG Newsletter September 2017

MPL driven unmanned racing car wins on Hockenheimring

Valued reader,

MPL AG supported the ETH (Technical university of Zurich) in a project of autonomous driving with two MPL products. The highlight of this year was the competition on the Hockenheimring racing circuit in August 2017. The "Formula Student" is the biggest contest for engineers worldwide and up to 600 teams are involved. The students had to design and build a driver-less race car.

The engineering team of the ETH Zurich decided to use the PIP39 (one of the rugged embedded computers of MPL) as heart of the car. The decision to use MPL has been made after long evaluation. The PIP39 was the main computer in the autonomous racing car in combination with MPL's rugged switch (MAGBES). The PIP39 is responsible for the steering, data processing, and control of the autonomous vehicle. All steering relevant data and logarithms are transmitted with the corresponding control signals to the various terminals over the MAGBES switch. MPL's PIP39 and the MAGBES worked flawless and reliable during the development and the actual race.



PIP39
Embedded Quad Core i7

Implementation of adjustment and optimization were easily done on site. Despite the very unpleasant weather condition (hard rain during the race) the system did work perfectly and caused no issues all the time. The CEO of the driver-less team states: This computer is exceptional! We never had any problems. The handling and the reliability of the PIP39 impressed us heavily. Even if it was frantic (e.g. optimization work or programming adjustments) and we did not always handle our vehicle with the appropriate care. Nevertheless, there were never any issues with the computer or the switch.



MAGBES
5-port switch

The competition in Hockenheim included various tests, for example an acceleration race. A certain distance had to be driven as fast as possible and then stopped autonomously. The ETH car reached second place in this event. In addition, a marked circuit (about 400m) had to be driven for ten laps with various directional changes and the ETH car finished first. After additional challenges, the ETH car was in the end the overall best autonomous racing car in driving as well as in engineering.



We congratulate the ETH team for this great success and are proud to be a part of this achievement.

Kind regards,
Your MPL team





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