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## USE OF THE CONSTRUCTION SPACE OF THE HEAD-UP DISPLAY AS A WATER RESERVOIR

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## USE OF THE CONSTRUCTION SPACE OF THE HEAD-UP DISPLAY AS A WATER RESERVOIR

### Initial situation:

In current vehicles, water storage tanks are integrated primarily for carrying cleaning water. This water is used, for example, to clean the glazing, headlights or sensors.

In the future, vehicles will need more and more sensors and computer power, for example, to be able to carry out autonomous driving actions.

In order for this multitude of sensors to have a permanent view during driving, for example to be able to carry out autonomous driving actions, they may have to be cleaned more frequently from environmental influences such as dirt. In addition, the increasing number of sensors also means that more computing power must be available in the car. Computers with such high computing power can possibly only be cooled with a liquid medium. For example, also with water.

Both increase the demand for water in the vehicle many times over compared to current vehicles.

However, the installation space in modern vehicles is not readily available for additional larger containers to carry water. As a result, the driver has to fill the vehicle with new cleaning water much more frequently than before.

### Solution:

Modern vehicles usually have a head-up display (HUD) (Figure 1 (5)) to show driver information directly in the windshield. New types of HUDs have a volume of several litres

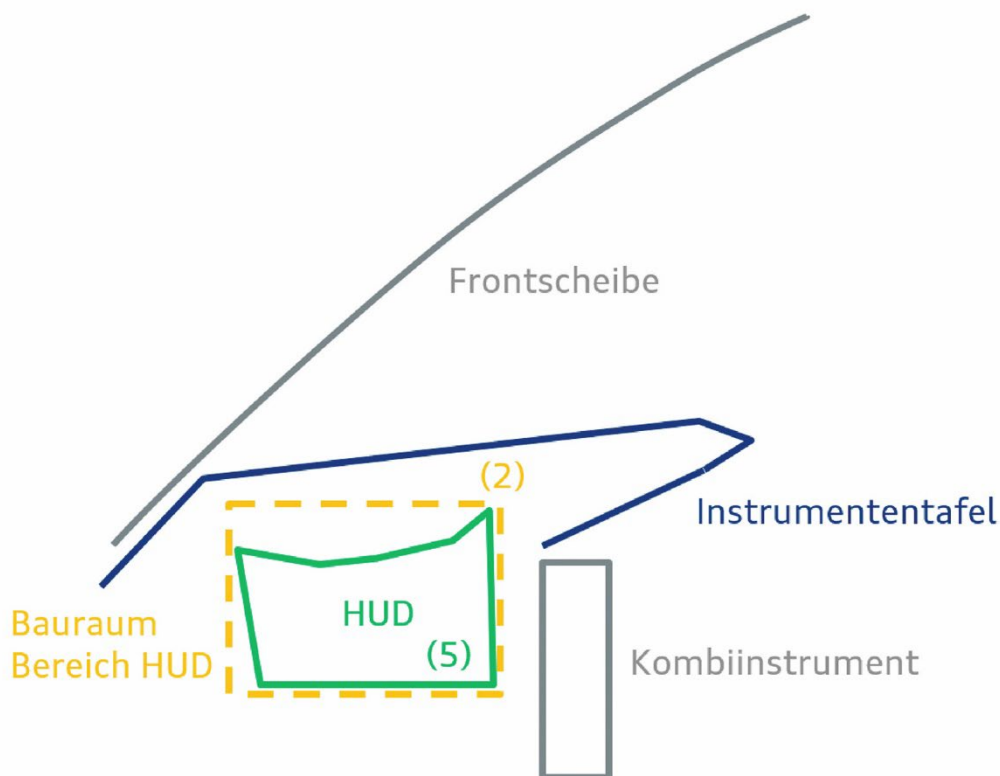


Figure 1: Head-up display in the vehicle

However, if a customer orders such a vehicle without a head-up display, the installation space of the HUD (2) remains empty and unused.

It is precisely for this case that the new idea describes the integration of an additional water tank (Figure 2 (1)) in the installation space of the non-existent head-up display.

**Technical implementation:**

The water tank (1) is made of an appropriate material and is connected to the vehicle in the installation space of the HUD (2) and connected to the already existing water infrastructure (4) by means of hoses (3). This means that a larger quantity of water is available in the vehicle. This extends the filling cycles and thus increases the comfort for the driver.

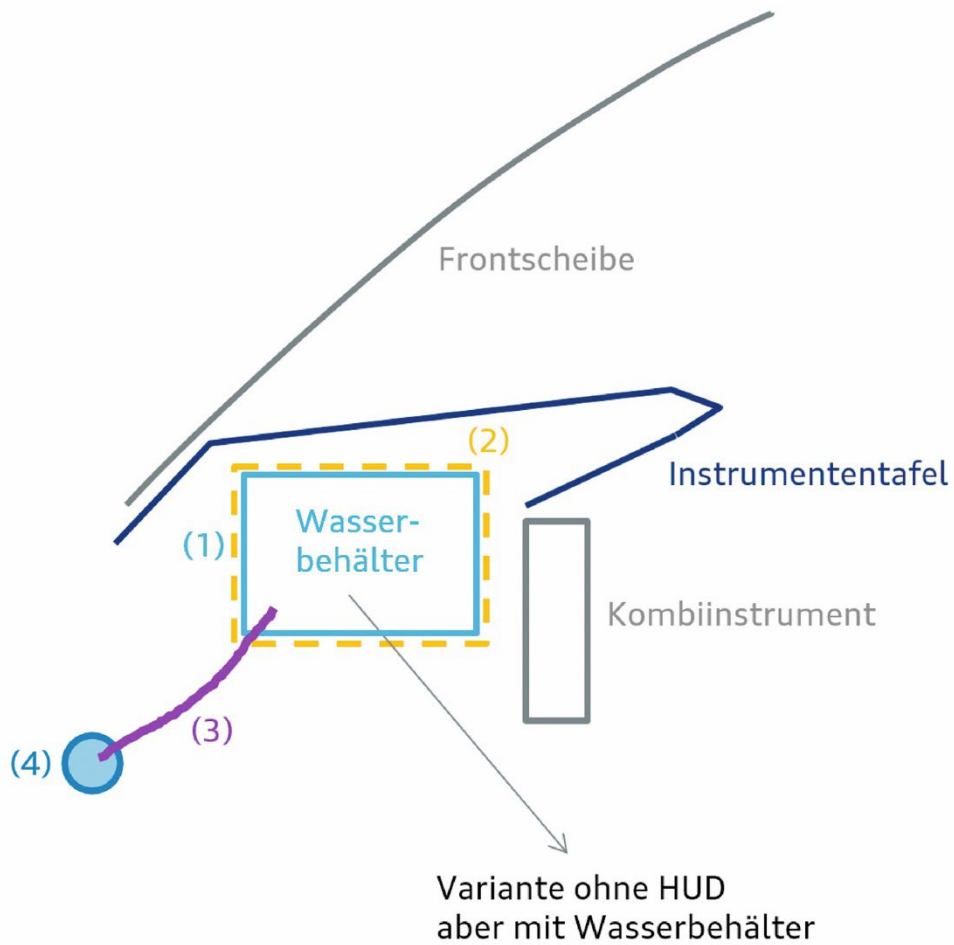


Figure 2: Water tank in the installation space of the head-up display in the vehicle