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CUPHOLDER WITH INDIVIDUAL TEMPERATURE CONTROL

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Technical task:
Cup holders in the vehicle are not yet able to adjust the beverage temperature individually to the occupants.

Initial situation:
A lack of individual temperature control can lead to the fact that the temperature of the beverage does not fit to the desired temperature of the occupant depending on his personal and vital conditions.

Solution:
The problem can be solved by a cup holder with an integrated heating and cooling element, which influences the temperature of the beverage. The temperature is determined depending on the personal and vital data of the occupant. The personal data is the individually set preferred beverage temperature. Based on the vital data which are calculated from various measurements the preset temperature can be readjusted. Sources for the measurement of vital data include wearables (Smartwatch, Fitbit, etc.), sensors in the seat or armrest, and systems for monitoring occupants such as infrared cameras. For example, the occupant usually wants to drink his coffee warm at 50 °C, but due to cool outside temperatures, the occupant freezes, which is recorded by the measurments of the vital data and automatically raises the temperature of the coffee by 5 °C.

Advantages:
- Individually controlled temperature of the beverage
- Temperature of the beverage is kept constant at the desired level