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## DEVICE FOR STORING AN OPERATING DEVICE - PRINCIPLE OF TURNING CIRCLES

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## DEVICE FOR STORING AN OPERATING DEVICE - PRINCIPLE OF TURNING CIRCLES

### Technical task

Today's adjustable pedals in motor vehicles have the purpose of improving operability. In highly automated driving, when the vehicle has taken over the driving task independently, it is desirable that the passenger on the "driver side" gets maximum freedom of movement.

### Situation

Today's adjustable foot levers have the disadvantage that they can move limited in the direction of travel (x) and thus always remain in the foot area and restrict the freedom of movement of the feet of the driver / passenger on the driver side.

### Solution

The pedals should be designed that they can be rotated under the cockpit during automated driving. At the same time, a continuous footrest or clearance is brought to the position of the pedals.

It is believed that as the level of automation of driving increases, actuation systems without mechanical access (i.e., steer by wire and brake by wire) will prevail. The actuators for brake by wire have no coupling to the brake system. This makes it possible to move the pedals relatively freely.

### Advantages

The passenger on the driver's side has full freedom of movement in the footwell during automated driving without being restricted by pedals. It is provided to him if necessary, a continuous footrest. An incorrect operation of the pedals during automatic driving by the driver is excluded in these positions.

### Possible application

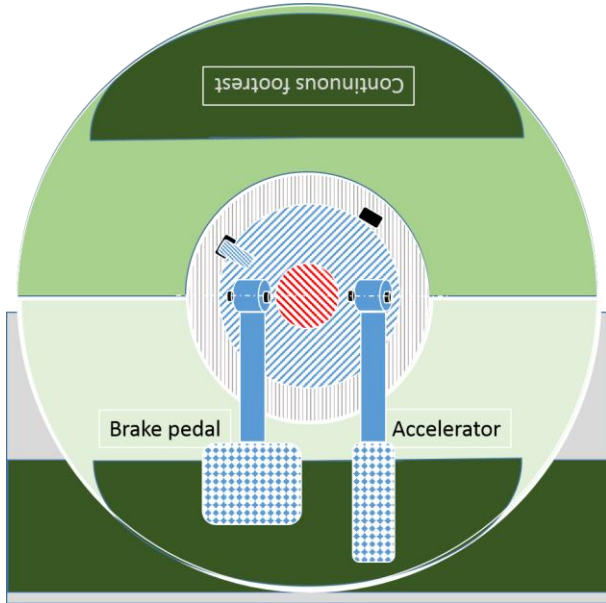
Pedal system and footrest are mounted on a common plate / backdrop. The plate/backdrop is behind the cockpit / panel mounted rotatably on the bulkhead / firewall. This plate/backdrop can be rotated so that either the pedals or a footrest comes to rest in the footwell or space for maximum freedom of movement for the feet is provided.

The rotational movement is effected by means of one or more electric drives by means of a transmission (for example gearwheels, drive belts, etc.). The occupant sees only the foot area: The rest of the plate / scenery and the drive unit is hidden behind the cockpit / panel not visible.

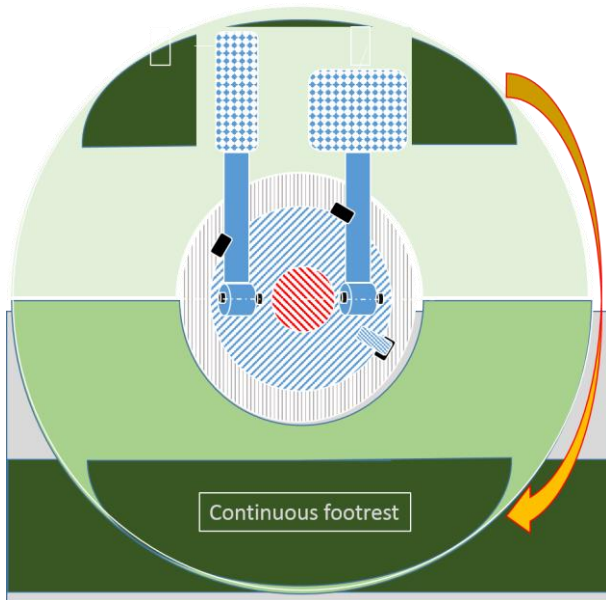
The adjustment mechanism can be mechanically or electromechanically locked in the positions (driver, clearance, footrest) by means of one or more locking elements to ensure safe operation.

Front view - without cockpit / control panel

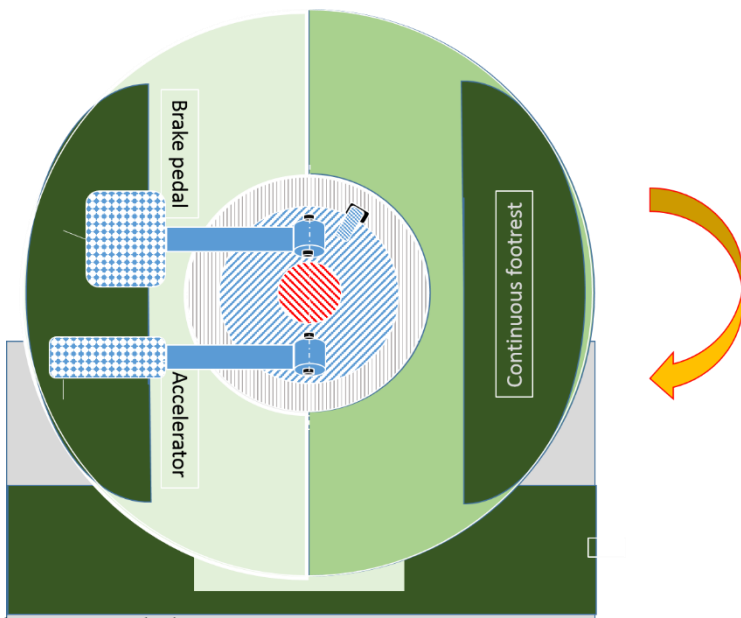
Driving position



Position automatic driving, 180 ° turned footrest

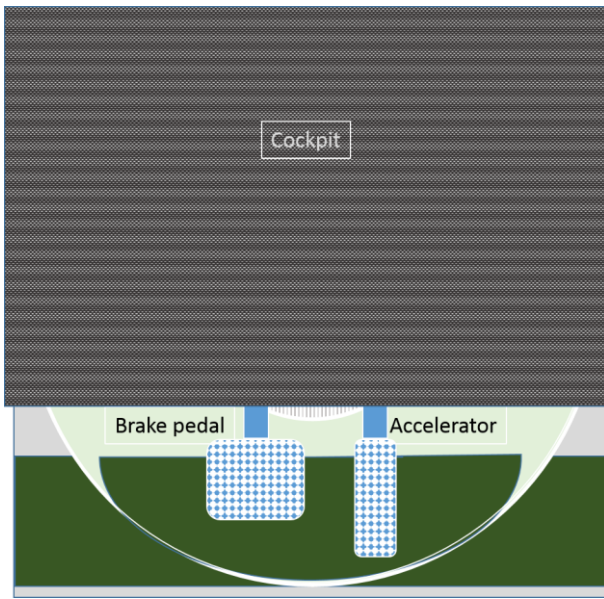


Position automatic driving, 90 ° turned footrest, max. freedom of movement

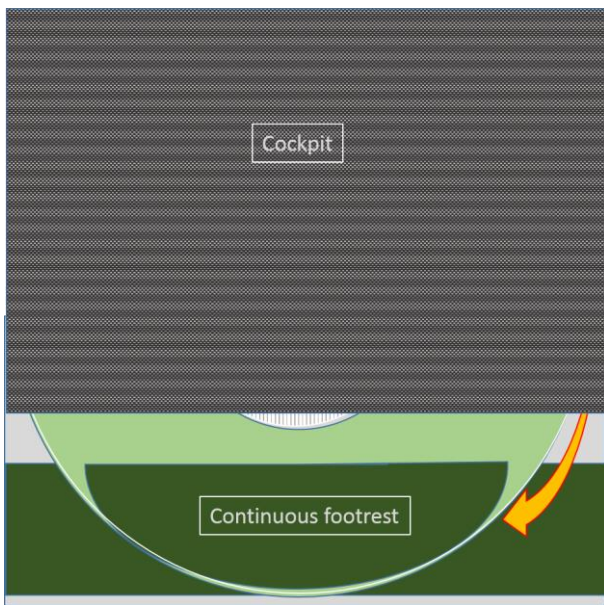


Front view - with cockpit / control panel

Driving position



Position automatic driving, 180 ° turned footrest



Position automatic driving, 90 ° turned footrest, max. freedom of movement

