CHALLENGE
Electronic training devices exercising the body symmetrically rely usually on one single electric drive. The drive torque has to be transmitted from this single electric drive to both rotation axes. So far the transmission of the drive torque is realized through gear pairs or wire rope hoists. Both are showing significant disadvantages as cost-intensive production, complicated implementation, high maintenance costs or vibrations of the rotation axis during the exercise.

INNOVATION
The invention realizes the torque transmission by two levers and a rolling movement. This mechanism circumvents vibrations during the torque transmission. Furthermore, the production of the lever component is less cost-intensive and needs additionally less maintenance.

COMMERCIAL OPPORTUNITIES
The application of the invention is the implementation in a symmetrically exercising electric exerciser.

DEVELOPMENT STATUS
A prototype of the system has been produced and validated. The mechanism has also been successfully tested by simulations.