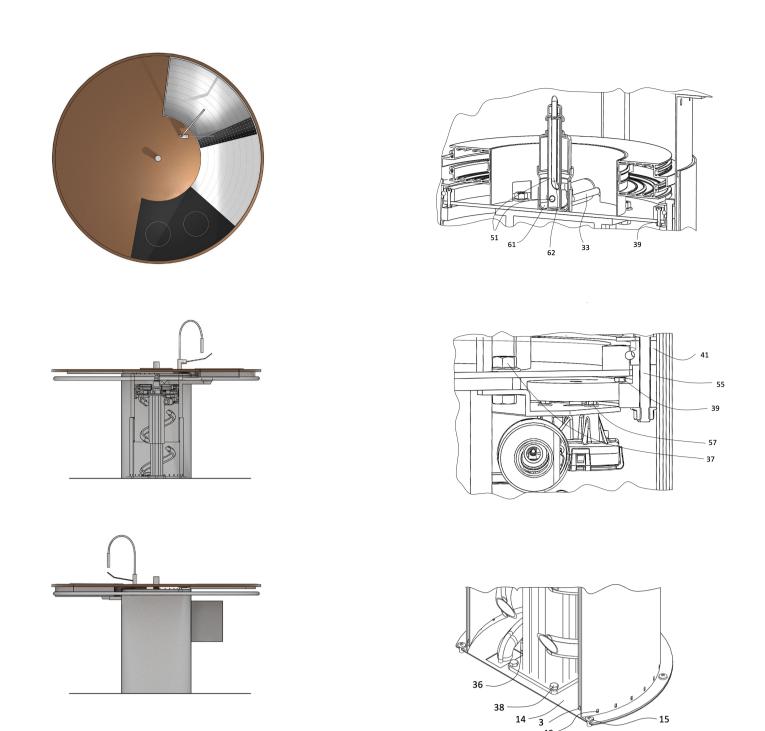
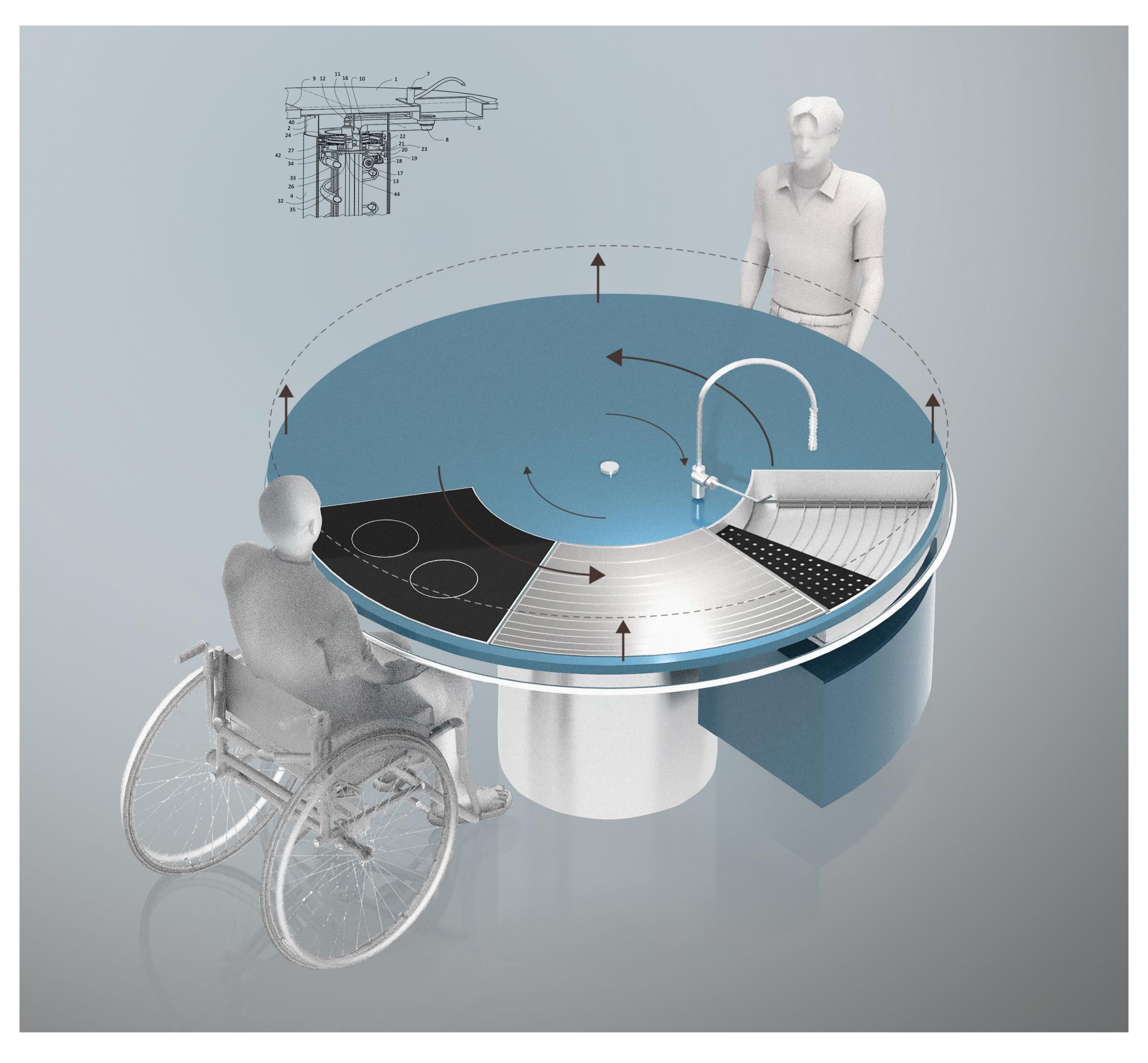
## ERGONOMIC ROTATING LIFT TABLE

**Authors:** Agata Bonenberg, Marek Zabłocki *Poznan University of Technology* 



The object of the invention is a rotating and lifting table designed for home use, primarily for persons with mobility impairments and seniors. The table can be also used as a comfortable, ergonomic substitute or extension to a traditional fitted kitchen. Rotation and lifting of the table can be performed independently. The electric cooker, stainless steel workspace, and sink are integrated with the tabletop and carefully positioned to ensure ergonomic distances and reduction of the necessity of the user's movements. The table moves workstations to the user's position. The rotation of the table makes its' entire surface easily accessible. Lifting the table makes it ergonomic both for people who use it in standing position as wheelchair users.

The concept of the ERGONOMIC **ROTATING LIFT** TABLE derives from observations of wheelchair-users and the fact, that their movement always requires the use of at least one hand: on an electric wheelchair the user has one hand on a joystick, and a manual wheelchair requires the use of both hands. In both cases, lifting and moving objects (pots, cups) is complicated to perform. The presented table provides a solution to this problem: with one hand one can lift the pot and with the other move the tabletop.



The ERGONOMIC **ROTATING LIFT** TABLE is health-promoting not only for persons with disabilities. It is estimated that about 80% of people living on earth have back pain problems, mostly lumbar spine pain. To avoid uncomfortable and long bending position while cooking, it is important to use kitchen furniture of well-adjusted height. The height of presented table can be changed very easily, and corrected a number of times during the day: for example for two different kitchen-users with different ergonomic requirements.

The presented product follows the emerging concept of "dynamic furniture": high-end range of solutions with electrically supported elements, flexible, variable, and adjustable dimensions.

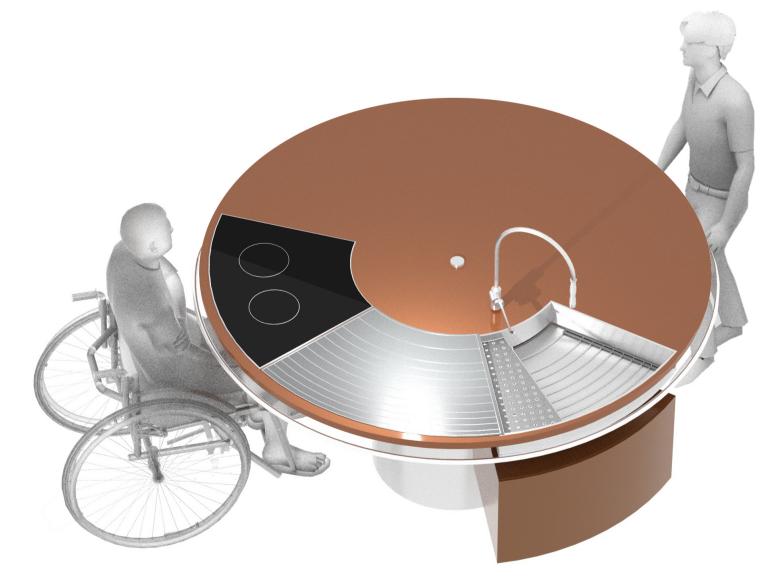


Table parts and components:

1. tabletop
2. leg top part
3. leg guide top part
4. leg bottom part
5. leg guide bottom part
6. sink
7. sink faucet

8. sink drain

9. cooktop

10. siphon
11. upper rotary cold water supply.
12. upper rotary hot water inlet
13. central module for water supply and drainage
14. locating plate
15. foundation bolts for legs
16. upper pipe fixing
17. geared motor (geared motor) - swivel drive
18. motor fixing
19. swivel drive gear

20. inner gear

21. bearing
22. bearing fixing (plate)
23. plate
24. rail (housing)
25. movable part of the water drainage module
26. rail mount
27. current collector
28. current collector guide rollers
29. current collector body
30. current slider

31. rail current rail

32. non-rotary water drain
33. cold water supply
34. hot water supply
35. linear actuator
36. actuator buffer
37. actuator top mounting (screws)
38. actuator foundation screws
39. non-rotating race bearing mounting screws
40. ventilation holes
41. rotating race bearing

42. non-rotating race bearing

43. contoured recess for gasket
44. module connector
45. module drain gasket
46. hot water female threaded nut
47. nut with external thread
48. slip ring (hot water)
49. hot water supply gasket
50. cylindrical hole
51. stationary part of hot water supply module
52. nut with internal cold water thread

53. cold water supply gasket

54. slip ring (cold water)
55.-bearing screw connection
56. tabletop mounting screws
57. gearmotor mounting screws
58. top part of busbar housing
59. bottom part of busbar housing
60. floor
61. stationary part of water drain module
62. stationary part of cold-water supply module
63. rigid housing hotplate wires

