Claims

1. A massage mat structure, comprising two rack rails (1) and a massage assembly (2) which is provided with a driving mechanism (3) meshed to both rack rails (1),

wherein:

a placement groove (4) is cut on both rack rails (1) and provided with a conductive wire (5);

the massage assembly (2) is provided with elastic metal pressing sheets (6) that are in contact with both the two conductive wires (5), one side of each elastic metal pressing sheet (6) extends into the corresponding placement groove (4), the other side of each elastic metal pressing sheet (6) is in close contact with the conductive wires (5) when compressed, and the elastic metal pressing sheet (6) is also electrically connected to the driving mechanism (3); and

the massage mat structure also comprises a controller which are arranged outside the massage mat structure; the controller is electrically connected to both conductive wires (5);

the controller, the two conductive wires (5), the elastic metal pressing sheets (6) electrically connected to the conductive wires (5), and the driving mechanism (3) form a circuit; and the driving mechanism (3) reciprocates between the two rack rails (1) based on the current direction change in the two conductive wires (5), without a need to add an assembly board to the massage assembly (2).

2. The massage mat structure according to claim 1, wherein:

the elastic metal pressing sheets (6) are arranged in a U-shaped form, with its bottom surface extending into the placement groove (4), a raised arc-shaped portion (61) is arranged on the bottom surfaces of the elastic metal pressing sheets (6) and presses onto the conductive wires (5), and the elastic metal pressing sheets (6) are compressed when the arc-shaped portion (61) presses onto the conductive wires (5).

3. The massage mat structure according to claim 1, wherein:

the controller comprises at least one external control circuit board which is electrically connected to the conductive wires (5) and an external power supply.

4. The massage mat structure according to claim 1, wherein:

the massage assembly (2) is equipped with two connection blocks (7) which correspond one to one to the two rack rails (1);

both of the connection blocks (7) are arranged in a C-shaped form, with their top connected to the top surface of the massage assembly (2);

the rack rails (1) protrude out of the middle of corresponding connection blocks (7);

the upper wall at the bottom of both connection blocks (7) is in contact with the bottom surface of the corresponding rack rail (1); and

the inner side wall in the middle of both connection block (7) is in contact with the side wall of the corresponding rack rail (1).

5. A massage mat structure according to claim 1, wherein:

the driving mechanism (3) comprises a double-ended motor (31) and two driving gear sets (32) that correspond one to one with the two rack rails (1);

the double-ended motor (31) is embedded on the top surface of the massage assembly (2), and installed between the two driving gear sets (32);

both elastic metal pressing sheets (6) are electrically connected to the power terminal of the double-ended motor (31);

one end of both driving gear sets (32) is meshed to the corresponding driving part of the double-ended motor (31), and the other end of both driving gear sets (32) is meshed to the rack rail (1) on the corresponding side.

6. The massage mat structure according to claim 1, wherein:

first sliding blocks (8) are arranged in pairs at positions close to the edges on both sides at the bottom of the massage assembly (2), with two first sliding blocks (8) in each pair;

the two first sliding blocks (8) on the same side are slidably connected and arranged in the placement grooves (4) on the corresponding side; and

the side walls of the two first sliding blocks (8) on the same side, facing away from each other, are in contact with the two side walls of the placement grooves (4) on the corresponding side.

7. The massage mat structure according to claim 6, wherein:

auxiliary grooves (9) are cut on both of the rack rails (1), and second sliding blocks (10) are arranged in positions close to the edges on both sides at the bottom of the massage assembly (2). The second sliding blocks (10) on each side are slidably arranged into auxiliary grooves (9) on the corresponding side.

8. The massage mat structure according to claim 1, wherein:

both the rack rail (1) and the massage assembly (2) are provided with positioning components for determining the position of the massage assembly (2) on the rack rails (1).

9. The massage mat structure according to claim 8, wherein:

the positioning components include Hall sensors (11), which are arranged at the ends of the two sides of each rack rail (1);

the Hall sensors (11) at both sides are electrically connected to the controller; the massage assembly (2) is equipped with magnets (12) distributed front to back, and the magnets (12) on both sides are arranged close to the rack rail (1).