Claims

1. Housing part (12b) for a housing of a member (10) for a robot arm of a robotic system, in which the housing part (12b) comprises a plurality of connecting elements (14a,14b;16;18;20;22;24,26,;28,30;32) for the connection with at least a further housing part (12a) in a detachable manner thereby forming said housing of said member (10),
said housing part (12b) is configured with respect to the other housing part (12a) in a shape-complementary manner and that at least one of the connecting elements (24,26;28) is configured to allow a torque- and force-transmitting connection between said housing parts (12a,12b),
characterized in that

the connecting element (28) is configured to directly cooperate with a fixation element (26) for the fixation of a driving unit, by means of which driving unit the member (10) can be connected to a member (10) of the robot arm being adjacent thereto or to a further component of the robotic system in a relatively moveable manner, in such a way that the fixation element (26) can be fixed and mounted in the housing in a torque- and force-transmitting manner by means of the said connecting element (28) itself.

2. Housing part (12b) of claim 1, in which the housing part (12b) has a shell-like structure and comprises at least one support element (24), which is arranged inside and in the area of one end of the housing part (12b) and which is configured to cooperate with the fixation element (26) in a form-fit and/or load-carrying manner.

3. Housing part (12b) of claim 1 or 2, in which the connecting element (28) is formed integrally with the housing part (12b).

4. Housing part (12b) of one of claims 1 to 3, in which a connecting surface (14a,14b) for the other housing part (12a) comprises at least in sections tongue- and/or groove-elements (32).

5. Housing part (12b) of claim 2, in which the support element (24) cooperates with the fixation element (26) in such a way that said fixation element (26) is uniquely positioned both with respect to the radial and the axial direction.

6. Housing part (12b) of claim 5, in which several support elements (24) are circumferentially arranged in sections forming recesses (25) between them.

7. Housing part (12b) of claim 5 or 6, in which the support element (24) is integral with the housing part (12b).

8. Housing part (12b) of claim 7, in which the support element (24) is formed as a wall element having a trapezoidal cross-section.

9. Member (10) of a robot arm of a robotic system comprising a housing for the reception of mechanical, mechatronic and/or electronic components, the housing being composed of at least two housing parts (12a,12b) according to one of the claims 1 to 8 and being complementary in shape.

10. Member (10) of claim 9, in which the two housing parts (12,12b) being configured to encase a fixation element in the form of a flange ring (26) for the fixation of a driving unit.

11. Robotic system having at least one robot arm which consists of a plurality of members (10) according to one of claims 9 or 10.