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(57) Abstract :
The present disclosure discloses an assembly (100) to control movement of robots. The assembly (100) includes an actuator (102) configured to transform rotational movement to linear movement, a movable shaft (104) with a base (110) coupled to the actuator (102) configured to move in axial direction and atleast two shape memory alloy wires (106) configured to change shape in response to heat variations and connected to the movable shaft. Additionally, the assembly (100) includes a heating mechanism to trigger transformation of the atleast two shape memory alloy wires (106) to a predefined shape and a load sensing system to monitor mechanical load variations during motion. An electrical source (108) configured to contract the atleast two shape memory alloy wires (106) is connected to the actuator (102).

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