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Semi-Humanoid Cleaning Robot

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Abstract: *The semi-humanoid cleaning robot is an advanced autonomous device engineered to perform comprehensive cleaning tasks in indoor environments, specifically targeting lavatories, basins, and floor surfaces. Designed with a humanoid-inspired structure, the robot utilizes multiple cleaning mechanisms, including vacuum pumps, rotating brushes, scrubbers, and mopping systems, to deliver thorough cleaning results. Equipped with sensors and a real-time navigation system, it can intelligently detect obstacles, map the surroundings, and optimize its path for efficient operation. The robot's control system integrates microcontrollers and software algorithms to coordinate the movements of its semi-humanoid arms and cleaning tools. Powered by a rechargeable Life-Po4 battery, it ensures extended operation time without interruptions. The modular and compact design enhances maneuverability in tight spaces and simplifies maintenance. This semi-humanoid cleaning robot aims to reduce human labor, increase cleaning efficiency, and maintain high hygiene standards in residential, commercial, and industrial settings. Its adaptability to various cleaning tasks and environments makes it a versatile solution for modern automated sanitation.*

Keywords: Semi-humanoid robot, Autonomous cleaning robot, Lavatory cleaning. Basin cleaning, Floor cleaning, Obstacle detection Navigation system

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