Voice Note Chair

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According to World Health Organization (WHO), there are 1.3 billion people who experience significant disability. This represents 16% of the world’s population, and persons with disabilities die up to 20 years earlier than those without disabilities. Our project aims to design a voice-controlled chair for physically disabled people, that can be easier, Self-reliant, and more efficient than the existing solutions which are unsuitable for most physically disabled people as tetraplegics. The proposed solution is a modified voice-controlled chair that can be moved in any direction with short and precise voiceprint. Sound is chosen as the main target because it can be produced by anyone, including cognitively impaired people, and specific voiceprints can be employed for each patient. The chair will be designed to work in noisy environments and avoid sound distortion by including a noise insulator system. The prototype developed with improvements, that we used some micro controls as Voice recognition, Arduino UNO and ultrasonic sensors and we worked by employing voiceprints of common directional orders. We made safety mode which incorporated using 3 ultrasonic sensors (two forward and another backward) to detect obstructions and prevent damage to the chair or patient. In summary, the proposed voice-controlled chair aims to improve the quality of life for physically disabled people by providing a safe and easy-to-use solution that can be controlled with voice commands and works in noisy environments.

Awards Won: