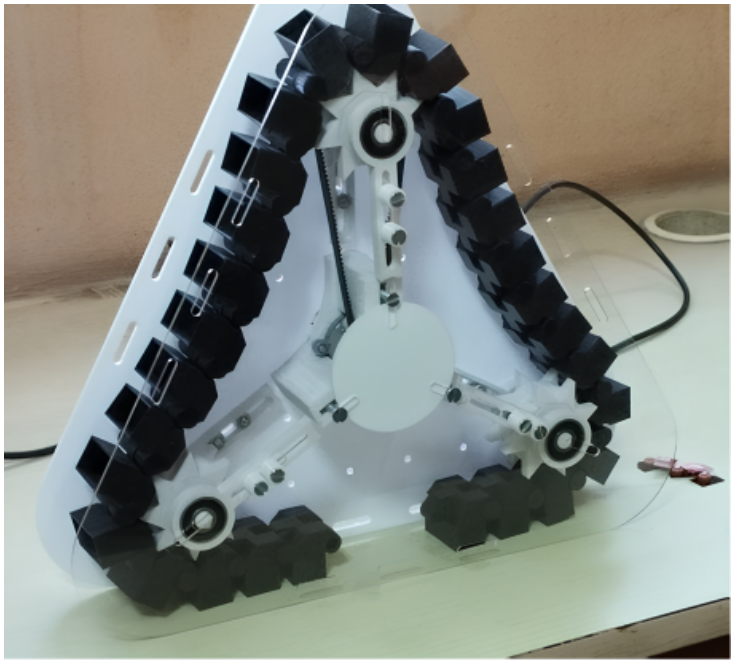
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MIT-World Peace University Pune develops IoT-enabled pill dispenser

11 March 2025 | News

To enhance medication adherence and healthcare efficiency



MIT World Peace University (MIT-WPU), Pune has developed a modular Internet of Things (IoT)-enabled tablet and capsule dispenser, designed for automated and remotely monitored medication management. This innovative device is intended to assist individuals with complex dosing schedules by ensuring precise and timely medication dispensing.

Addressing the limitations of traditional medication dispensers, which often require manual intervention and lack remote monitoring capabilities, MIT-WPU's solution integrates a modular design with advanced IoT connectivity. The device features an equilateral-shaped container, a motor-driven dispensing system, and a controller unit that enables user-defined dispensing schedules and real-time remote monitoring.

Dr Amol Tagalpallewar, Professor, School of Pharmacy at MIT-WPU said, "In today's fast-paced world, maintaining consistent medication adherence is a significant challenge, particularly for individuals managing complex medical regimens. This innovative IoT-enabled pill dispenser represents a leap forward in addressing this challenge. By automating the dispensing process and providing remote monitoring capabilities, we are empowering patients and their caregivers with greater control and peace of mind."

Dr C. H. Patil, Associate professor, School of Computer Science and Engineering added, "Furthermore, this device represents a significant step towards the future of healthcare delivery, where technology and human-centred design converge to create more accessible, efficient, and effective solutions. We envision a future where technology is not just a tool, but a partner in promoting well-being and enhancing the quality of life for all."

Functionally, the dispenser utilises dispensing units arranged circumferentially and connected with sprockets, powered by a motor. The controller unit sends command signals at user-specified times, automating the dispensing process. IoT integration allows caregivers and healthcare professionals to monitor medication adherence in real time, enhancing patient safety and care. The device is intended to improve medication management in home care, assisted living, and hospital settings.