



**Department of Biotechnology
Ministry of Science & Technology
Government of India**

Make-in-India initiative: Inauguration of Low cost motorized wheelchair (LOCOMO-WC) by Hon'ble Minister for Science & Technology and Earth Sciences

28th January, 2016 at Indian Spinal Injuries Centre, New Delhi

Under the Department of Biotechnology, (DBT) Union Ministry of Science & Technology's "Make-in-India initiative", Hon'ble Minister for Science and Technology and Earth Sciences, Dr. Harsh Vardhan dedicated the low cost motorized wheelchair, (Locomo-WC) to the Indian persons with disabilities. Dr. VijayRaghavan, Secretary, DBT, Dr. Rajesh Kapur, Advisor, DBT and Padma Bhushan, Major (Retd) HPS Ahluwalia, Chairman, Indian Spinal Injuries Centre, (ISIC) New Delhi were present at the event.



Under the joint international collaborative program of DBT and USA government, the motorized wheelchair designed at Human Engineering Research Lab, University of Pittsburg has been completely remodeled to suit Indian conditions by Dr. H S Chhabra, Medical Director & Chief of Spine Service and Mr. Nekram Upadhaya at ISIC.

➤ **Following significant facts were brought to notice:**

- Indian wheelchair users have to face the dual challenge of uneven terrain in rural India along with prohibitive cost which limits the accessibility of the wheelchairs available in the market.
- Estimated cost of LOCOMO-WC would be Rs 45,000 as compared to the imported motorized wheelchair which could cost Rs 1.5 lakhs. The cost again could come down with mass production and tax exemptions.
- Comparing with the existing motorized wheelchairs, the



uniqueness of LOCOMO-WC lies in its suspension system with linear links used to make all four wheels operate independently along with another advantage in wheel travel feature which makes it suitable to handle uneven terrain also.

- LOCOMO-WC could withstand rugged conditions and at the same time is also comfortable easy to manipulate and is available at an affordable cost. It is also light weight, simple to handle, easy to fold and reassemble.
- Locomo will also make people with disability as independent as possible, leading to improved quality of life, social relationships, and physical health.
- Unique features of LOCOMO-WC:

S. No.	Feature
1	Unique and innovative Suspension system for Indian environmental conditions
2	Joystick controlling system in 360 degree directions
3	Speed 8-10 kms /hr
4	Battery backup upto 15-20 kms in one charge
5	Charging takes about 3 hours to get fully charged
6	Easy to fold and reassemble, light weight, comfortable
7	Passed ISO 7176 testing of wheelchair standards
8	Manufacturing cost less than Rs. 45000