

## An innovative newborn hearing screening device launched by the government

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**SOHUM has been developed by startup Sohum Innovation Labs India Pvt. Ltd. under Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India supported (SIB), DBT**



The indigenously developed newborn hearing screening device “SOHUM” has been launched by the Y.S. Chowdary, Minister of State for Science and Technology & Earth Sciences in New Delhi recently.

SOHUM has been developed by startup Sohum Innovation Labs India Pvt. Ltd. under Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India supported (SIB).

SIB is a flagship program of the DBT aimed to develop innovative and affordable medical devices as per unmet clinical needs of India and to train the next generation of medical technology innovators in India, it is a valuable contribution to the Make in India campaign of the Government. This Program is implemented jointly at AIIMS and IIT Delhi in collaboration with International partners. Biotech Consortium India Limited manages techno-legal activities of the Program.

This low cost and unique device uses brainstem auditory evoked response which is the gold standard in auditory testing to check for hearing response in a newborn. As of now, this technology is prohibitively expensive and inaccessible to many. It aims to cater to nearly 26 million babies born every year in India.

SOHUM measures auditory brain waves via three electrodes placed on the baby's head. When stimulated, they detect electrical responses generated by the brain's auditory system. If there is no response, the child cannot hear. The battery-operated device is non-invasive, which means babies do not need to be sedated, which is the current, and risky, testing in process at present.

Another key advantage over other testing systems is the patented, in-built algorithm that filters out ambient noise from the test signal. This is important because health clinics can be incredibly crowded and noisy.

Currently, five clinical centers are running the hearing screening program as the device has been installed in all five of them.

The aim is to screen two percent of hospital-born babies in the first year, before scaling up. The project has ambitious plans to help every baby born in India be screened.