

Bengaluru based start-up's mobile based electrocardiography device to help patients with cardiac problems

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A Bengaluru based start-up Cardea labs supported by the Biotechnology Industry Research Assistance Council (BIRAC), a Government of India Enterprise, has come up with a portable electrocardiography (ECG) device called Accurate Tele ECG on Mobile (ATOM) which can help patients with cardiac problems to generate an ECG with help of android mobile phone. The portable device ATOM is easy to use and needs no trained operators to run it. The device is cost effectiveness and it widens the scope of telemedicine in India by connecting the rural communities with healthcare practitioners.



The ATOM is a hand-held battery-operated one-stop solution for medical-grade 12 lead ECG devices. The innovation provides high definition clinical-grade simultaneously recorded TRUE 12 Lead ECG on any android smartphone. The user can generate a detailed 3-page report in pdf format which can be further sent to the cardiologist through E-mail/WhatsApp or even uploaded to a cloud server for interpretation. In simpler words, it records all the 12-leads of ECG simultaneously and displays the same on mobile screens. The generated report can be immediately shared with experts via mobile phones.

An affordable 12 lead ECG system on the smart-phone will not only boost the digital healthcare space, but a paperless system like this will also save a huge amount of time, helping both patients as well as the doctor. ECG reports on paper have the risk of getting lost

or fade over time. This innovation marks a new achievement for healthcare technology in India. With deep penetration of mobile phones and mobile phone networks in developing countries like India, ECG on mobile phones is a promising concept that aims to bring a change.

Cardiac health is a serious concern and India has an epidemic rate of cardiovascular diseases accounting for 60% of the world's cardiac diseases. Incidences of CVD have gone up considerably for people between the age groups of 25 and 69 by almost 24.8%. A medical grade simultaneously recorded ECG report is the first level of screening for cardiac anomalies.