

## Jeevtronics: Hand cranked 'SanMitra 1000 HCT' defibrillator for sudden cardiac arrest, a potential COVID-19 solution

Biotechnology Industry Research Assistance Council (BIRAC) supported start-up Jeevtronics has developed the world's first hand-cranked defibrillator since sequestration areas inside hospitals for corona victims need lots of defibrillators. The "SanMitra 1000 HCT" defibrillator is particularly useful for COVID 19 like situations. This device is a dual powered (Hand-Cranked and Grid) defibrillator. This defibrillator works both on grid electricity and on a built-in hand-cranked generator. Thus, it is more reliable than traditional defibrillators and can be useful in the times of COVID 19 pandemic.



This low-cost device does not need a battery replacement and can be powered in a few seconds by rotating a small hand paddle proving to be a lifesaver in regions where electricity is scarce. Defibrillators powered by electricity are common at airports and hospitals, but this 'Made in India' machine is cost effective as compared to the imported electric defibrillators. This light-weight innovation does not require inverter backup and has been engineered to be most suitable for ambulances wherein it can withstand high/ low temperatures, vibrations, water ingress etc. Thus, this defibrillator is a step forward in affordable lifesaving technology.

Some of important features of the machine are:

- Bi-phasic
- Light weight
- Low cost
- No inverter back-up required

- Useful for ambulances, hospitals, off-grid locations, disaster relief, armed forces, stadium etc.

The Coronavirus outbreak has brought life to a near standstill in most parts of the world. We have witnessed it as one of the largest problems in recent history. Elderly people, pregnant women and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

**Link:** [https://birac.nic.in/webcontent/1589286696\\_Potential\\_COVID\\_19%20Solutions\\_20200512.pdf](https://birac.nic.in/webcontent/1589286696_Potential_COVID_19%20Solutions_20200512.pdf)

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