

# Designing and Constructing an Automatic, Non-Electrical Dependent Cardiopulmonary Resuscitation Machine Gen 2.0

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The ongoing problem of medical malpractice, which accounts for nearly 251,000 deaths per year, highlights the need for a more sophisticated solution to the issue of human error. To address this, the MedicalTech Automatic, Non-Electrical Dependent Cardiopulmonary Resuscitation Machine was developed, a revolutionary CPR machine that utilizes advanced technology to provide accurate and efficient chest compressions without the need for electricity. The MedicalTech CPR Machine is comprised of two main components: the machine itself and an advanced backpack that powers the device. The machine features an upgraded aluminum body, which is welded, bolted, and supported through various mechanical techniques, making it both durable and precise. This system is movable and adjustable through a wheeled gantry system. Additionally, the device is equipped with a flexible magnetic attachment system that allows for easy switching between attachments for different aged patients, as well as four extendable legs for varying chest heights. Furthermore, the machine is equipped with sensors that actively monitor and relay leveling information to the operator, and even in the event of power loss, the machine is still able to thoroughly perform CPR. Additionally, the device features adjustable PSI regulators to allow for changes in force application onto the chest. The MedicalTech Gen2.0 CPR machine represents a significant step forward in eliminating human error and utilizing technology to improve outcomes in the medical field. With its advanced features and capabilities, it holds the potential to significantly reduce the number of deaths caused by medical malpractice.