

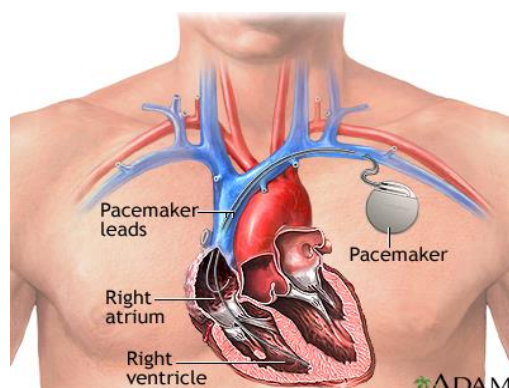
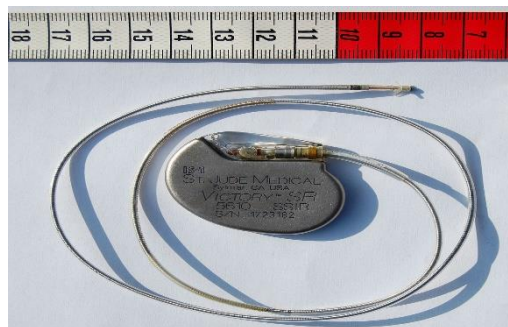
## Application of embedded system in Medical Field

There are a lot of advantages of “Embedded technology” as well as use of graphical user interface in medical devices. In today’s world heart issues are one of the most common problems occurs in every second person in the world. As a result, to that, cardiology is the only medical department that takes maximum advantage of Embedded technology.

Some of the devices:

### 1) *Pacemaker*:

- Pacemaker is one of the applications of embedded systems. A pacemaker is a small device that's placed in the chest or abdomen to help control abnormal heart rhythms. This device uses low-energy electrical pulses to prompt the heart to beat at a normal rate.
- A pacemaker consists of a battery, a computerized generator, and wires with sensors called electrodes on one end. The electrodes detect your heart's electrical activity and send data through the wires to the computer in the generator.
- If your heart rhythm is abnormal, the computer will direct the generator to send electrical pulses to your heart. The pulses then travel through the wires to reach your heart.



## 2) Defibrillators

- It is used to monitor a patient's heart for inconsistent rhythms and gently shock the heart back into its normal rhythm when necessary, using embedded technology. Doctors program the defibrillator to fit the patient using an external device. A defibrillator can be implanted in the patient and replaces the need for the external paddle (manual) defibrillators.



### References:

*Final paper* (pp. 1–1). (2016).

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