BIONIC ARTIFICIAL HEART BLOOD PUMP DRIVEN BY PERMANENT MAGNET

A bionic artificial heart blood pump driven by permanent magnet is a device which can solve the problems of the blood pump power supply from the body's external to the internal and the heat generated by the energy conversion components inside the body. In addition, the blood pump can overcome some shortcomings of the existing pneumatic or electric diaphragm blood pump, for example, the short life of the pump is caused by the fact that the blood bag made of flexible material is periodically pressured and repeatedly folded. The structure and the working principle of the bionic artificial heart blood pump driven by permanent magnet located outside human body are introduced. In order to reduce the amount of foreign matter and avoid using the channel through the body to provide energy, we adopt permanent magnets to transfer the energy required by the artificial heart. The key components of an artificial heart- the blood pump and its drive unit work under this principle: the passive magnet which is installed in blood pump located in the body and the active magnet driving unit located outside the body form a pair of permanent magnet, when the active magnet rotates, the magnet field change and passive magnet will follow the rotation of the active magnet.