

Circuit structure and working principle

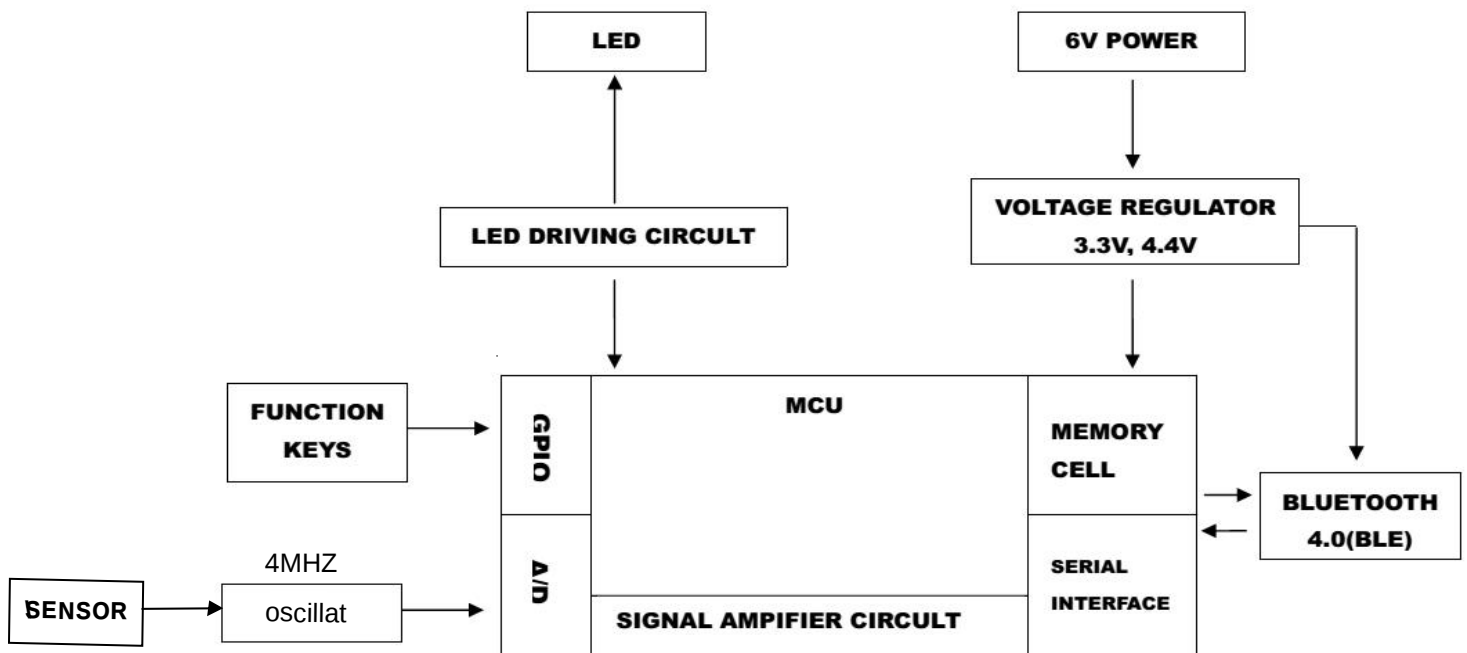
1、Instrument structure

The whole machine is made of glass, plastic parts, plastic parts, sensor, PCB, display part and Bluetooth,

2、Part of measurement

The measurement and display part is composed of pressure sensor, LED display, IC, battery and so on.

Circuit structure diagram



Weight

When the human body is on the surface, the pressure is applied to the pressure sensor the sensor changes, so that the impedance changes, so that the excitation voltage changes, the output of an analog signal, the analog signal after amplification and then converted to facilitate processing of digital signal input to the MCU control

Impedance

After measuring the body and the two electrode contact, the MCU test the resistance according to the test person (BIA is a kind of technology which is designed according to the different body tissues with different electrical conductivity. After the body is connected to the frequency of the 50kHz current, the electric current can be passed through the extracellular fluid. But a part of the current will be cell membrane resistance, a part of the current is due to the cell membrane temporarily charged and slow down the speed of the current, which is the sum of resistance, resistance and resistance, usually 90% or more. The measured value by MCU and the weight of the above test

Measurement results

According to the measurement of height, age, gender, movement, according to the MCU prompt with the key input the corresponding content, MCU with the weight data, impedance data, personal parameters with the internal program to convert and convert the results displayed on the LED screen, while the signal is transmitted to the terminal by Bluetooth4.0.

The device's frequency range is 2402-2480Mhz, with one internal antenna and the antenna gain is 1.01dBi.