1. **Technology Research**
   * 1. **wearable sensor technology**

Nowadays, some new technologies make it possible to improve the vital sign monitoring system, which include sensor systems [1], wearables [2], personal pregnancy health records [3], and the connectivity of devices through Internet of Things [4]. With the development of those technologies, the wearable sensors get rapid developed as well. These sensors are portable, accurate, and can monitor vital signs in real time. And they have been applied in multiple devices that can be integrated into the vital sign monitor system.

* + 1. **Involving Equipment**

1. Polar H10 is a chest strap whose heart rate sensor can precisely monitor heart rate in real time. It has built-in memory to store data and uses Bluetooth to transfer data. It could be integrated system to gather the heart rate data.
2. RENPHO Body Fat Scale is a smart scale to measure body weight, and transfer data using Bluetooth to get further analysis. It could be integrated system to gather the body weight.

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