**Software Development Methodology**

The project is to develop a system for vital signs monitoring, for the software development methodology, our group will strictly follow Agile

Methodologies, which means the group will focus on the four key values of agile: individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, responding to change over following a plan. We will concentrate on the individuals and interaction with our group member and client over processes and tools. The highest priority will be to satisfy the customer through early and continuous delivery which means we will deliver every one or two weeks and keeps touch with the client to find out the exact requirements. The project will be built around the group leader who is the most motivated individual. The formal group meeting will be held once every week, the workshop will be held once a week, the informal meeting will be held once a week and our group will also use online software to discuss the problems we meet in order to keep efficiency and quality of the software. Every two week, we will reflect on how to enhance efficiency after which behaviors will be tuned and adjusted accordingly. Continuous attention will be paid to technical excellence and good design. For the project, we will separate the task into small pieces and use sprint to complete work. GitLab will be used for team - work and the milestones in GitLab will be set before each sprint to manage time. For the software, our team will use Gitlab for managing time and team working, wechat will be used as online chatting tool, Scrum Board will be used for agile.

**Software Introduction**

Android Studio

Integrated Android development tools are provided for development and debugging purposes. It provides Gradle based build support, Android - refactoring and quick fixes, prompt tools to capture performance, availability, version compatibility, and so on, support for ProGuard and application signatures, template-based wizards to generate common Android application designs and components, a powerful layout editor that lets you drag and drop UI controls and preview the effects. Based on the powerful functions, we will use it to develop android software.

Adobe XD

Adobe XD is a set of prototype, design and interaction in one of the little fresh age style design software. Adobe XD uses a super simple and efficient interface; A sibling application style inherited from the Creative Cloud package. It provides prototyping tools for different platforms, including websites, phones, tablets and more. Therefore, we will use it for the UI Design.

Polar SDK

Polar SDK enables to read and interpret data from Polar heart rate sensors including ECG data, acceleration data and heart rate broadcast.

Therefore, we will use this for data collecting and analysis.

GitLab

GitLab is an open source project for warehouse management systems, we will use milestones to manage our time and use issue board on Gitlab to post the issues we meet and discuss with teammates. Branches will be used when developing software. Gitlab will also be used as a warehouse management system.

Latex

Latex is a kind of typesetting system based on Τ Ε Χ typesetting system. Latex will be used for writing the reports and other academic writes.

Scrum

Scrum is a tool for breaking work down into small, actionable tasks that require a series of sprint cycles, usually 2-4 weeks, to be done by cross-functional teams. Therefore, it will be used for developing software using agile.

Microsoft Teams

Microsoft Teams is a chat-based intelligent team collaboration tool that synchronizes document sharing and provides instant messaging tools for members, including voice and video conferencing. The team will use Microsoft Teams for discussing problems.