3. Project Plan

1. User Stories

This is the first version of User Stories for this project.

ID	User stories	Story Points	Priority
#1	As a healthcare worker, I want to get information that needed from DICOM automatically so that I don't need to spend too much time in extracting parameters manually.	50	High
#2	As a healthcare worker, I want all data parameters I need can be presented in a PDF/CSV so that I can access them easily	30	Low
#3	As a researcher works on radiation protection and nuclear safety, I want data parameters can be checked automatically with a Pass/Fail result so that much time can be saved.	50	Middle
#4	As a healthcare worker, I want the system can deal with multiple DICOM files at a time so that I can run the system once to get all I want.	40	Low
#5	As a maintainer of this project, I want the program is developed in Python or MatLab which I am familiar with so that I can maintain this program.	20	High
#6	As developers of future project development, I want the code to be concise and clear with equal comments so that it is easy for me to read the code easily.	20	Middle

2. Plan:

For this project, overall plan can be divided into the following 6 steps:

1. Extract Gantry Angle parameter from the sample DICOM file;

2. Validate Gantry Angle and put parameter value and results into CSV file;

3. Extract easy parameters (such as Collimator Angle, Wedge Angle) from DICOM and validate these parameters;

4. Extract medium parameters (such as SSD, Field Size, energy) from DICOM, and validate;

5. Optional: Make simple GUI so that the client can upload DICOM file and get CSV file (including these parameters they want to validate and pass/fail result for each parameter)

6. Optional: extract the hard parameter and validate them if we have enough time;

3. Communication Plan

In general, online meeting is the primary avenue of communication. During the project, the team will proceed three types of meeting, which are Daily Stand Up Meeting, Sprint Planning Meeting as well as Sprint Review Meeting. For each type of meeting, the communication plan is detailed illustrated in the following section.

3.1 Sprint Planning Meeting

The Sprint Planning Meeting is held at the beginning of each sprint. Due to the Coronavirus, we held an online meeting with our client instead of in the form of face-to-face. The whole team including the Scrum Master, Scrum Team and Client should participate in the meeting. Other key stakeholders can also attend the meeting if necessary. In the meeting, the Scrum Master describes the prioritized features that the team will complete in the following sprint. The team will work together to decompose the User Stories into detailed tasks andcreate the Sprint Backlog. The team identifies what they will accomplish in the Sprint and write down the Sprint Goal. The team will use Zoom to hold the meeting.

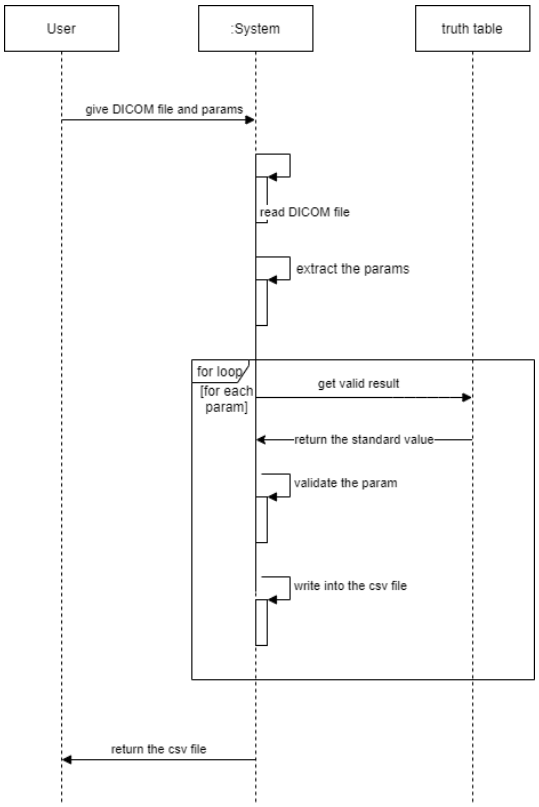
3.2 Daily Stand-Up Meeting

During each sprint, the Daily Stand-Up meeting is held every two or three days. Scrum team members share what they have done, what is in progress and what they are going to do in the near future. They will post the difficulties they met in the project and the whole team try to solve them together. Wechat is the approach of this kind of meeting.

3.3 Sprint Review Meeting

After each sprint, the Sprint Review Meeting is held. After each Scrum Sprint, the team is expected to deliver a potentially shippable product. In the meeting, the Scrum Team shows what the accomplished during the sprint and takes the form of a demo of new features. Clients and key stakeholders are welcome to attend the meeting to provide feedbacks or comments. The team will use Zoom to hold this meeting.

4. Process Chart



5. Risk

Risk	Probability	Impact	Management
The lack of background in the medical document leads to difficulty in choosing developing language and open-source libraries.	mid	high	At the beginning of choosing development tools, simply understand the medical imaging files between the form and language of finding literature and open source projects
The customer is not a person in the computer industry, and reading and expanding the code may be extremely difficult for them	high	med	Explain the logic and implementation of the code to the customer at the end of each spring, and use comments to inform customers and future developers which modules can be extended
Some DICOM files do not contain specific parameters lowlowRun the same testing procedure as above.	high	high	Handle and package program exceptions carefully, and do not directly expose to users
The loss of efficiency because members may become busier and busier after the middle of the semester	med	med	Clarify the logic and specifications of requirements and development procedures to achieve the goal of efficiently completing the tasks of each sprint