

PROJECT INTRODUCTION

1. Name:
EMEC LAUNCHER - Designing NIMBUS and STARLET operation software for quantitative real-time PCR
2. Objective:
Improving customer experience by expanding the range of tests for the company's distributed product line, aiming to enhance the competitiveness of the equipment in the market. Additionally, exploring new business prospects in chemical manufacturing that align with the existing Starlet/Nimbus machine series.
3. Implementation Approach:
The project will be implemented in collaboration with a hospital unit that already utilizes the STARLET or NIMBUS system. The steps involved are as follows:
 - 3.1. Software Development:
Design and develop software modules for the NIMBUS and STARLET systems.
Create a user-friendly interface to streamline the operation and analysis process.
Integrate specific protocols for HBV/HCV/HIV disease into the software.
 - 3.2. System Integration:
Install and configure the EMEC Launcher on the STARLET and NIMBUS systems.
Establish seamless data transfer between the Seegene Launcher and EMEC Launcher for sample processing. And EMEC Launcher to CFX Manager for RT-PCR.
 - 3.3. Testing and Validation:
Conduct thorough testing to ensure the software's functionality and compatibility with the STARLET and NIMBUS systems.
Validate the accuracy and reliability of the software by running samples and comparing results with established standards.
4. Current Software description (will be updated)
The installation and extraction process for the Universal Extraction kit is performed using the Seegene Launcher. Subsequently, the EMEC Launcher installs the HBV/HCV/HIV program. Finally, the output file is run on the RT-PCR machine using CFX Manager.
After inputting the data into the Seegene Launcher, it will automatically be transferred to the EMEC Launcher for processing.

The operational steps can be carried out as follows:

1. Set up the Extraction Sar-CoV step in the Seegene Launcher software.
2. Begin the extraction process and proceed until completion.
3. Set up the NA Transfer step to move the extracted samples from DW96 to Tubes.
4. Open the dev_app program.
5. Select the HBV/HCV/HIV protocol and initiate the RUN process.
6. The program will complete and collect the samples in PCR Strips.

Note: This is just a simulated version of the operational steps, and it is important to follow specific procedures and instructions provided by the supplier and manufacturer to ensure safety and effectiveness.