This is a testbench application developed in G-code (LabVIEW) on host pc, to communicate with the embedded system and it simulates most of the major sensors used in the system programmatically through the LabVIEW UI.
The source code developed in LabVIEW performs the following main tasks
1. For every Sensor value selected from a range of values, it generates an Analog output voltage according to the interpolated index between two sensor value points.

2. Continuously detects user events on UI (sensors) and dynamic user events related to receiving/sending of ERD messages between embedded system and LabVIEW application.

3. Parses the communication messages and performs the following tasks
Read req
Read response
Write req
Write response

LabVIEW application for monitoring, data acquisition and control