The spacesuit vitals application will constantly monitor the astronaut’s vitals by communicating via a telemetry stream with peripheral devices and display the information on the HMD. The app that displays the information can be maximized or minimized at the users will in order to maintain a clear field of vision. If the astronaut’s vitals begin to drop to an unhealthy range, the application will change its color to yellow. If the astronaut’s vitals drop too low, the application becomes red and contact with ground control is immediately established. The astronaut can then interface with the DCU and UIA via a serial connection in order to upload and display vitals information. This can be done during intravehicular spacesuit preparation and during EVA. Interfacing via a serial connection helps guarantee data integrity during transmission during EVA.