

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

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| Date | 31 October 2022 |
| Team ID | PNT2022TMID48432 |
| Project Name | Signs with Smart Connectivity for Better Road Safety |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|--|
| FR-1 | User Visibility | Sign Boards should be made of bright coloured LEDs capable of attracting driver's attention Not too distracting to cause accidents |
| FR-2 | User Understanding | Should display information through means like images/illustrations with text so that the user can understand the signs correctly |
| FR-3 | User Convenience | Display should be big enough to display all the signs correctly so that it is visible even to far away drivers |

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | Should be able to dynamically update with respect to time |
| NFR-2 | Security | Should be secure enough that only the intended messages are displayed in the display. |
| NFR-3 | Reliability | Should convey the traffic information correctly. |
| NFR-4 | Performance | Display should update dynamically whenever the weather or traffic values are updated |
| NFR-5 | Availability | Should be on service 24/7 |
| NFR-6 | Scalability | Should be modular and hence able to scale on servers horizontally. |