

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

Date	13 October 2022
Team ID	PNT2022TMID49512
Project Name	Project -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	NFC tag	Connect to your car with an NFC tag via bluetooth.
FR-2	Smartphone	Smartphone will automatically connect to radio or headset.
FR-3	LCD Display	Used to display the locations.
FR-4	Arduino	Control and transfer the data to NFC module.
FR-5	NFC reader	Read the data from NFC tag and send the details to controller.
FR-6	Ultrasonic sensor	Vehicles speed will control through object distance level.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	NFC makes connecting devices easy and intuitive.No data entry required.
NFR-2	<b>Security</b>	NFC technology is safe.It's also incredibly difficult to hack.
NFR-3	<b>Reliability</b>	NFC tags can be used to absolutely prove a person's presence at a specific place.
NFR-4	<b>Performance</b>	NFC tags work without a battery.It requires much less power.Also it lasts for 10 years.It works over a very short distance.
NFR-5	<b>Availability</b>	Short range NFC tags are available in cheapest price.It guarantee the security of the customers data.
NFR-6	<b>Scalability</b>	These NFC tags are pre-configured at manufacture and they can be either read,re-writable or read only.