



SmartWeigh Pro

Real-time. Accurate. Secured.



MANUAL WEIGHBRIDGE : CHALLENGES

Companies require weighbridges to ensure compliance with government rules, accurate delivery of goods, and reduce the wear and tear caused to their fleets by overloading.

But the current manual weighbridge systems have multiple flaws including human error, inefficiency, data management, security risks, compliance issues, and operational limitations.

By using unmanned automated weighbridge solution, organizations can eliminate these issues and add further value to their business.



01

Inaccurate Weight Measurement

Manual data entry errors and unstandardized weighing procedures can compromise the accuracy and integrity of weight measurements.

02

Security Vulnerabilities

Susceptible to security risks such as unauthorized access, tampering, or fraud.

03

Data Challenges

Cannot process bulk data. Additionally, if data gets lost or destroyed, it cannot be recovered.

04

Limited Scalability and Flexibility

Limitations in scalability, making it difficult for companies to accommodate growing transaction volumes or adapt to changing operational needs.

05

No Real-time Visibility

No real-time update is available across the value chain

SMART WEIGHBRIDGE SOLUTION

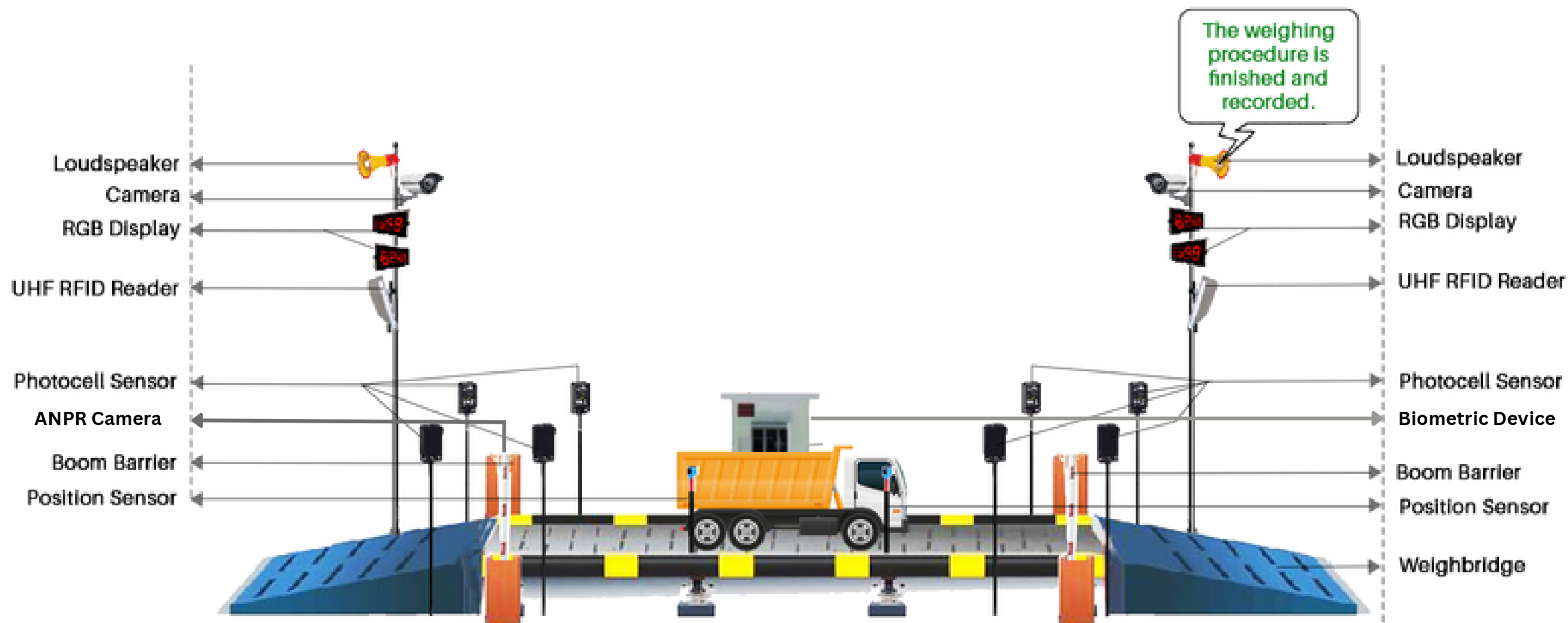
Our **Automated, Unmanned Weighbridge Solution** includes a range of features designed to streamline operations, enhance accuracy, improve security, and facilitate integration with other systems.



SMART WEIGHBRIDGE SOLUTION : FEATURES



VISUAL REPRESENTATION



AUTOMATED WEIGHING

STEP	ACTION	SYSTEM COMPONENT INTERACTION
1	Identify Vehicle	The driver scans an RFID card/Tag at the Approach Gate
2	Authorization Check	The central software verifies the vehicle's credentials (e.g., registered, authorised for weighing).
3	Grant Access	If authorised, the RGB Display board will display the vehicle's number in green. Announcement through mike and the Entry Boom Barrier opens.
3.1	ANPR + RFID Tag	The vehicle is validated and allowed to access weighbridge by dual-data validation through RFID Tag + ANPR Camera.
4	Initial Guidance	The Public Address (PA) System provides voice prompts to guide the driver onto the weighbridge.
5	Drive onto Platform	The truck drives onto the weighbridge platform.
6	Vehicle Positioning	Vehicle Positioning Sensors check if the truck is fully and correctly aligned on the platform.
7	Stop Signal	Once positioned correctly, the first RGB Display board turns Red , and the PA System instructs the driver to stop. The Entry Boom Barrier closes.
8	Weight Stabilization	The system waits for the weight reading to become stable.
9	Data Capture + Biometric Device	The system captures the weight measurement (e.g., Gross Weight or Tare Weight). Simultaneously, Surveillance Cameras capture date and time stamped images. Also Validates & Authenticates Driver through Biometric devices.
10	Confirmation	The live and captured weight is displayed on a RGB Display board for the driver to confirm and announcement of the Weight at the same time
11	Automated weighing - Gate out	Boom Barrier opens automatically with green traffic light and audio instructions to move out.
12	Data sent to ERP	weightment data and related information are sent to ERP
13	Integration with Other Portals	Can be seamlessly integrated with other Portals eg. GST Portal, JIMS, E-Waybill

SMART WEIGHBRIDGE ADVANTAGES



Zero Manual Error

Ensures precise and reliable measurements by eliminating manual intervention in the weighing process



Improved Efficiency

Enhances operational efficiency and productivity by optimizing the weighing process, minimizing transaction time, and increasing throughput.



Improved Data Management

Enables seamless data capture, centralized management, and integration with existing systems, ensuring higher data accuracy and easy accessibility for reporting, analytics, and regulatory compliance.



Strengthened Security

Strengthens operational security through robust access control, surveillance, audit trails, and data encryption, effectively minimising risks related to cargo theft, fraudulent activities, and inventory losses.



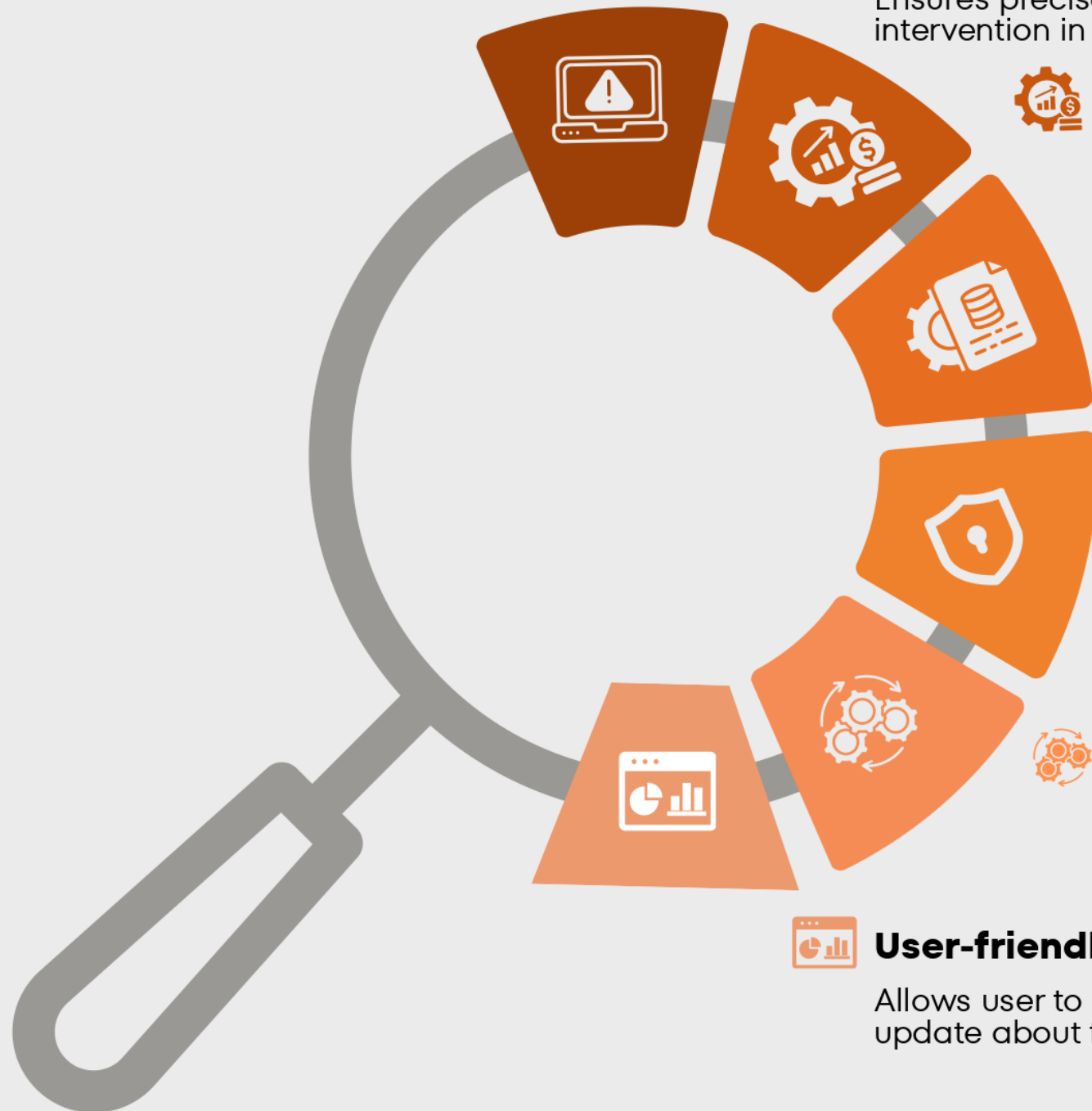
Optimized Operations

Supports scalability for increasing transaction volumes while ensuring consistent accuracy and reliability. Its flexible architecture allows easy integration with other systems, driving improved efficiency and operational agility.



User-friendly Dashboard

Allows user to easily navigate across reports and get real-time update about fleet.



SYSTEM IN VIEW

MASTER SETUP **VEHICLE MAP** **WEIGHMENT** **PASSWORD**

Weighment Process

Sensor: 65.90~61.60~1~1

Transaction
Slip No. :
Alias No. :
Do No. : C22602925
Route : (00:00 - 23:59)
Customer :
Type of Goods : COAL

Vehicle No : JH1- **16-WHEEL**
Challan No :
Wb Name : W83

Tare Weight : **Gross Weight :**
16340 **48500**

Driver Details
Driver :
Mobile :
Lc No :
Address :

48490Kgs Gate 1 ● Gate 2 ●

EPC ID	Antenna	Tag Count	RSSI

SAVE **RESET** **CLOSE**

Camera Feeds:
Left: Front view of a white truck with a blue container at a weighing station.
Right: Side view of the truck at the weighing station.

REPORT OVERVIEW

TransMINEX 🏠 📖 🚚 Menu ▾ Logout

SINo	Vehicles	Transporter	GPS Provider	Last Update	AVG Speed	Idle Time	GPS Not Resp.	Outside Route	Alias	Route	Remarks	History	Status	Driver Info	Alert	Exp.	
31				18-04-2026-12:02:59	0	29 MIN											
32				18-04-2026-12:00:42	1		2 MIN	7 MIN									
33				18-04-2026-12:00:26	0		32 MIN										
34				18-04-2026-12:02:55	0	1 MIN											
35				18-04-2026-12:01:51	16		1 MIN										
36				18-04-2026-12:03:02	26												

Vehicle will Blink, if not reached destination as per scheduled time

Vehicle Positioning Status

Set Remarks in case of Breakdown/Accident & Set Reminder in minutes

See the Previous history Playback

Check the Current Position

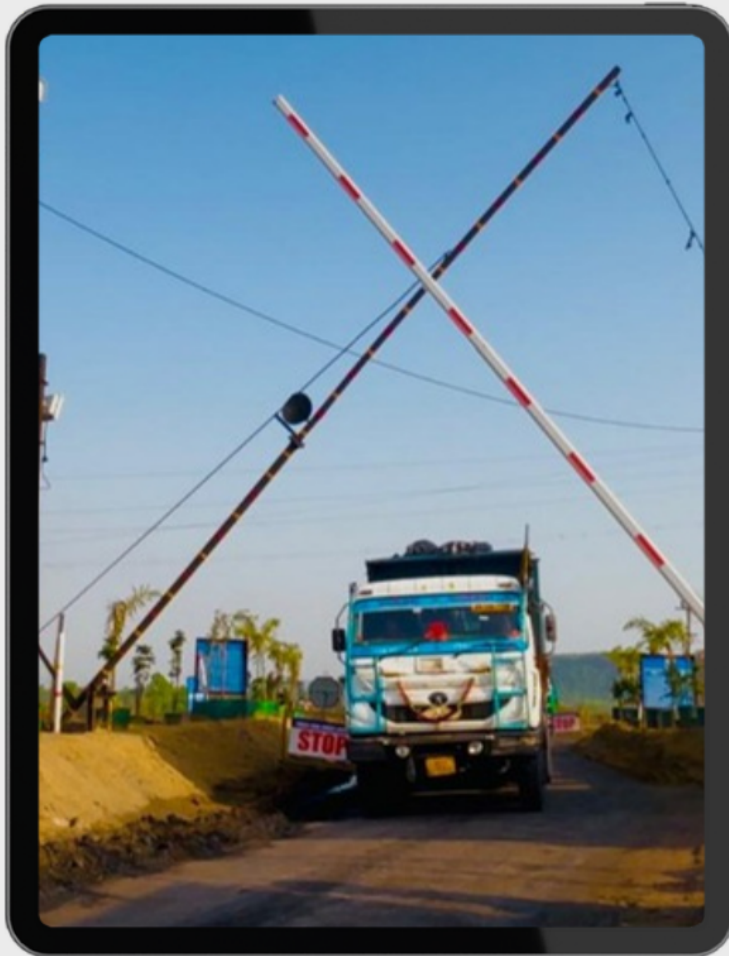
Check Driver Information

Alert if Vehicle Stop in Red Zone or Unsafe Zone

Can Set Exception Checks Like Sampling / Quality if required

***Easy integration with AIS 140 GPS**

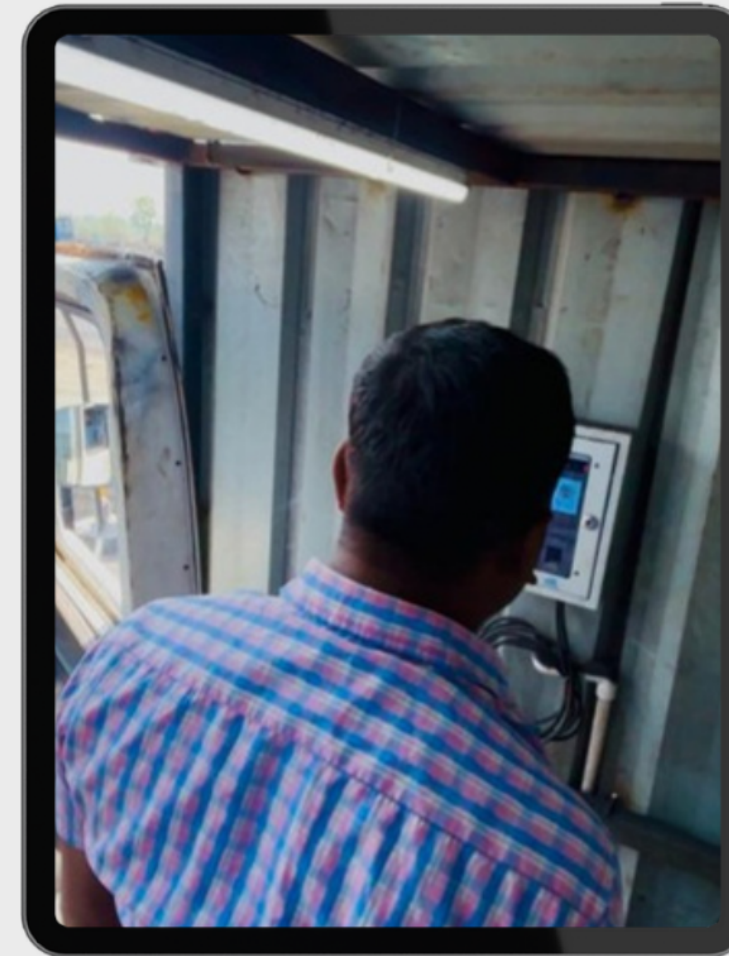
SYSTEM IN ACTION



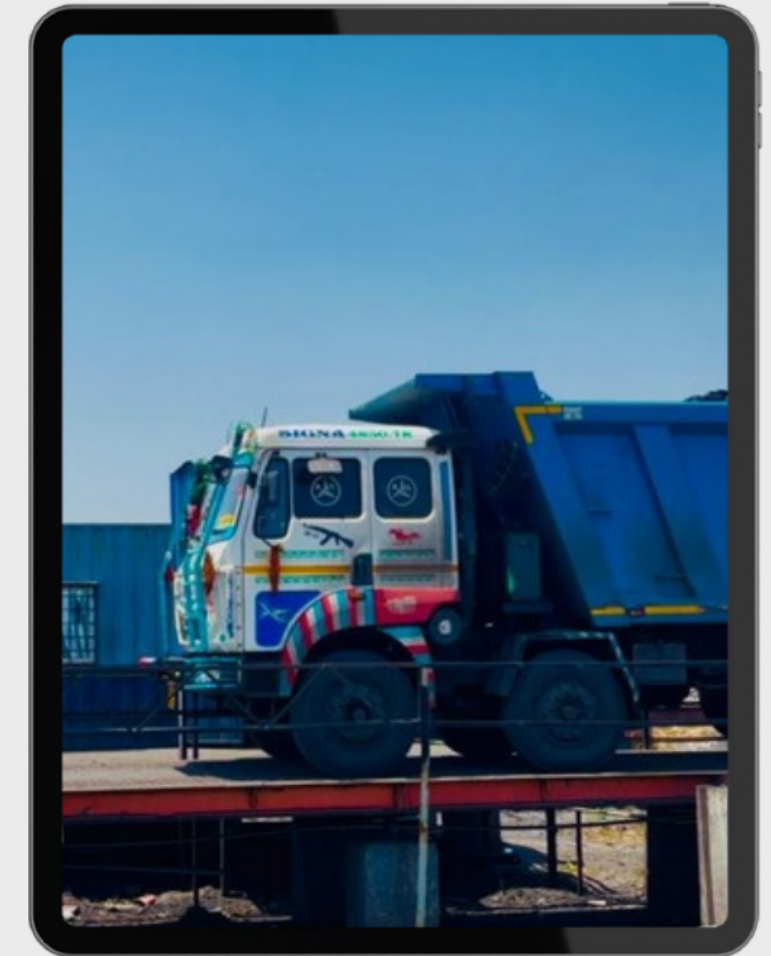
Boom Barrier



**LED Display and
Loudspeaker**



**Biometric Device based
Driver Authentication**



Position sensor

TECHNOLOGY STACK

ITEM	MAKE	MODEL
BoomBarrier with colored LED Strip & controller	Zketeco	CMP200 Automatic Barrier Gate with Telescopic Boom Arm with 2 Door Relay Controller
Traffic Light (Red & Green)	JIGO	
Outdoor Facial RecognitionSystem	Zkteco	SpeedFace-V5L
5 MP IP outdoor bullet Camera for front view for Number plate	TP LINK VIGI / CP PLUS RED	(5 mp/6mm/IP)
5 MP IP Dome Camera (Indoor)	TP LINK VIGI / CP PLUS RED	VIGI C240I
WeighBridge Centering/Positioning System (WBCS) with controller, RADAR/Ultrasonic Based	PEPARL & FOUCH	Maxbotix
32 Inch LED Monitor	Acer	SA322Q 31.5
4G/5G SIM based Modem	TP LINK	TL-MR6400
PA System for Audio Commands with Outdoor Speaker, Amplifier	Ahuja	1 Speaker + 1 Amplifier
Central Server Application/Integration Software	Softweb Technologies	DRISHTI 2.0

**THANK
YOU**