



This is the story of how we developed an HMI module for a two-wheeler digital instrument cluster



Delivered with Passion



Project highlight

We enabled quick start up of the HMI and immediate display of the tell tales.

HMI start up time: 2 seconds

Image update time: Within 10 milliseconds

Overall, TBT images (Read image buffer from flash memory and display them on the screen) was accomplished within 10 milliseconds and Tell-Tales images were displayed within 2 milliseconds.



Our customer

A leading supplier of automotive components for OEMs around the world



Why did they choose to partner with us?

The customer was aware that our automotive engineering team has previously worked on developing production-ready HMI solutions for motorcycles. Additionally, they were impressed by the IPs our team has developed recently. This affirmed our proficiency in designing complete digital instrument cluster solutions, and hence, they decided to partner with us for this project.

Our solution



Software for HMI with TFT display

We designed and developed the HMI software for the customer's digital instrument cluster product.



Cost effective solution

Our solution was perfect for the customer's cost-effective digital instrument cluster for ICE-powered motorcycles.



Superior connectivity

The MCU of our HMI unit connects with the primary MCU through UART and reads the fault codes, speed, odometer info, fuel level details, etc. This information is also sent to the mobile application of the driver via Bluetooth.

Key features

BLE MODULE

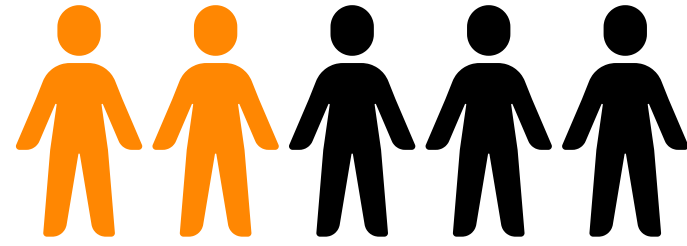
- Bluetooth connectivity with driver's mobile device
- Displays calls, messages, alerts, and warnings on HMI screen
- TBT navigation guidance

Cloud Connectivity

FOTA UPDATE MODULE

- Controlled and customized OTA software release
- Data integrity and source authentication
- Complete and atomic FOTA sessions

Embitel impact



Successful delivery

Our team successfully delivered a cost-effective HMI module and integrated it with the customer's digital instrument cluster and mobile application.

Early delivery, undeterred quality

Due to our prior experience in such HMI development projects, we were able to deliver the solution a month ahead of the expected delivery date.

Contact us



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