

# Design and BOM generation of LED DRL and RCL lamps for PV's

## The Client & Industry

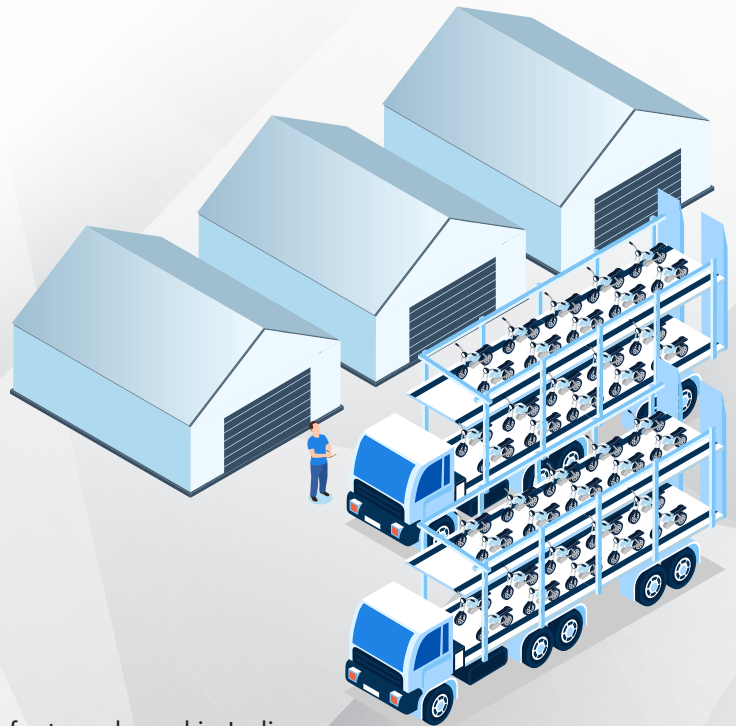
The client is a leading global automotive, motorcycle manufacturer based in India.

## The Product

1. LED DRL / Position lamp assemblies are being used in Four wheeled vehicles like Cars and Commercial vehicles for vehicle position identification in day condition. LED DRL will be continuously ON during day operating condition of vehicle. In Position mode, the DRL will operate with low intensity in Night Condition along with Head Lamp which will improve the vehicle visibility. This will also be helpful to Rider if head lamp not operational in night condition or if vehicle brake down
2. LED Rear combination lamps provide the functionality of Tail lamp, Stop lamp, Reverse parking lamp, Direction Indicator and Number plate illumination. Used in Passenger Vehicles, E-vehicle, and commercial vehicles with different combination of functionality

## Deliverables

Finally, package containing of Gerber, BOM, PCBA drawing, PCB details are released to EMS supplier.



## Project Highlights

### PCB design

- PCB layout team will receive the hardware schematic design and Mechanical layout as a input. Based on these input, layout team design the PCB layout as per mechanical constrain
- LEDs & connector placement as per mechanical input
- Setup the constrains as per power rating
- Do layout and Via stitching
- DRC check and clean-up
- Do Gerber review and Penalization in CAM350 software
- Generate the Gerber, pick & place and assembly data for PCB & Panelized PCB

### BOM creation & validation

- As per received schematic drawing , BOM is extracted from Schematic and converted to MMLI standard format with Complete purchasable part number from AVL (Active parts)and Suggest alternatives for each parts number
- Check availability of parts from vendors for prototype if not Alternate parts is suggested by considering few points like Automotive grade, ROHS, ActiveBOM is reviewed by hardware before final release assembly data for PCB & Panelized PCB