

OEM

Parts Warehouse

Saudi Arabia

EOI from OEM

Manufacturers

**OCTAWIZ Consulting**



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# Business Plan

This parts warehouse business plan was prepared for supplying OEM auto components to a car manufacturer setting up manufacturing hub in Saudi Arabia.

- The parts warehouse will be based on **Just-in-Time (JIT)** and **Just-in-Case (JIC)** inventory models depending on production scheduling.
- Address logistics flows, including inbound from suppliers and outbound to assembly lines.
- Create SKU codes and categorize all parts according to type, manufacturer, and model.
- Set up inventory management software integrated with factory and supplier systems.

# Engine Compartment (Powertrain Components)

## Engine System

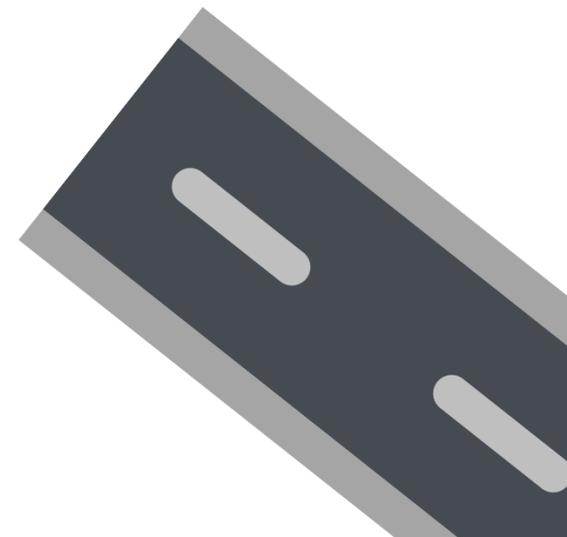
- Engine block
- Cylinder head
- Crankshaft
- Camshaft
- Pistons and piston rings
- Connecting rods
- Timing belt/chain
- Oil pan and oil pump
- Gaskets and seals
- Engine mounts

## Air Intake & Exhaust System

- Air filter and intake manifold
- Turbocharger/Supercharger (if applicable)
- Exhaust manifold
- Catalytic converter
- Oxygen sensors
- Muffler and tailpipe
- EGR (Exhaust Gas Recirculation) valve

## Fuel System

- Fuel tank
- Fuel pump
- Fuel injectors
- Fuel filter
- Fuel lines and hoses
- Throttle body



## Cooling System

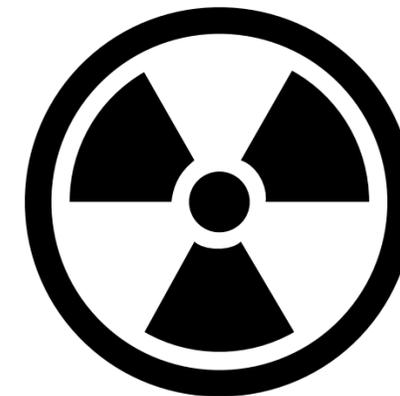
- Radiator
- Water pump
- Thermostat
- Cooling fan (mechanical/electric)
- Radiator hoses
- Expansion tank/reservoir

## Lubrication System

- Oil filter
- Engine oil cooler

## Transmission System

- Transmission assembly  
(manual/automatic/CVT/DCT)
- Clutch assembly (manual)
- Torque converter (automatic)
- Transmission fluid cooler
- Driveshaft/propshaft



# Chassis & Underbody

## Steering System

- Steering wheel
- Steering column
- Power steering pump (hydraulic/electric)
- Rack and pinion or steering gearbox
- Tie rods and steering knuckles

## Suspension System

- Shock absorbers/struts
- Coil springs/leaf springs
- Control arms
- Stabilizer bars
- Ball joints
- Bushings

## Brake System

- Brake pedal and booster
- Master cylinder
- Brake calipers and discs (or drums)
- Brake pads/shoes
- Brake lines and hoses
- ABS module and sensors



## Axles & Differentials

- Front and rear axles
- Differential (front, rear, or center)
- CV joints

## Wheels & Tires

- Rims/wheels
- Tires
- Wheel hub and bearings



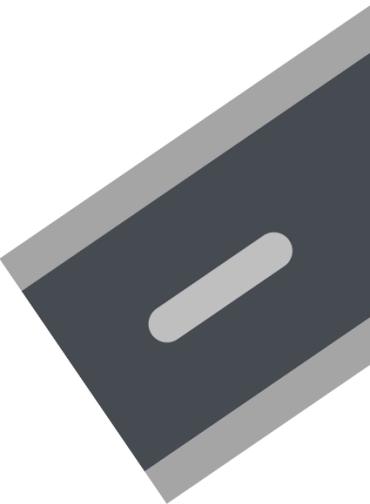
# Interior Components

## Dashboard & Controls

- Dashboard panel
- Instrument cluster (speedometer, tachometer, fuel gauge, etc.)
- Center console
- Infotainment system
- Climate control panel
- Gear shifter
- Ignition switch / Start-Stop button

## Seats & Trims

- Front and rear seats (frames, cushions, upholstery)
- Headrests
- Seat belts
- Seat sliders and recliner mechanisms
- Seat heaters/ventilators (if applicable)

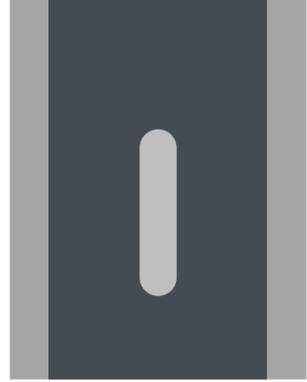


## Interior Panels

- Door trims
- Roof liner
- Floor carpet
- Pillar trims
- Glove compartment

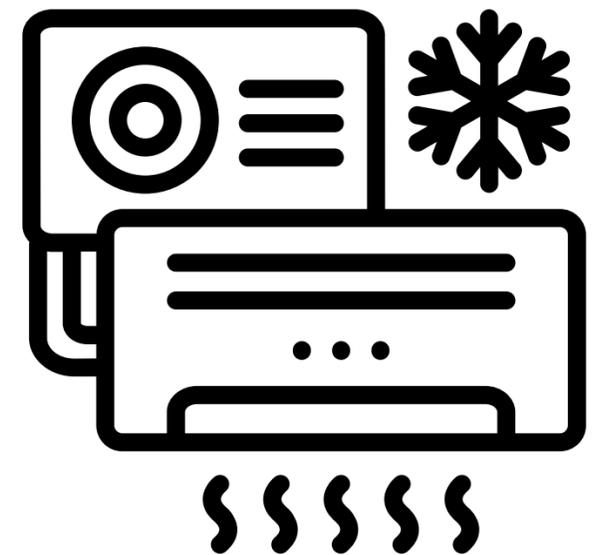
## Switches & Accessories

- Power window switches
- Mirror adjustment switch
- Interior lighting (map, dome, ambient)
- USB ports, 12V outlets



## HVAC (Interior Climate)

- Blower motor
- Cabin air filter
- Heater core
- AC evaporator and condenser
- HVAC ducts and vents



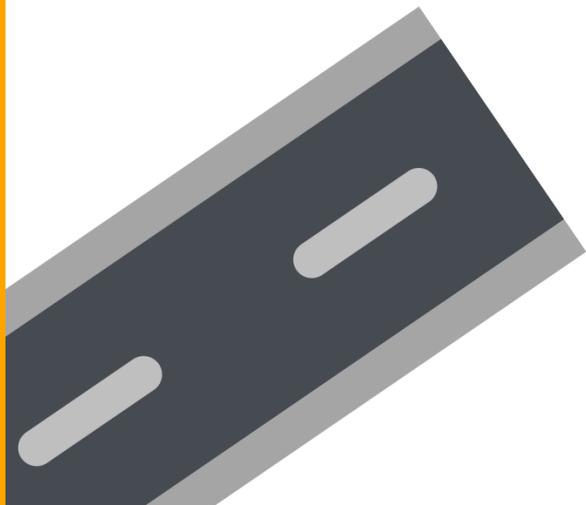
# Exterior Components

## Body Panels

- Hood/bonnet
- Front and rear bumpers
- Fenders
- Doors
- Roof panel
- Trunk lid/tailgate
- Side skirts

## Lighting System

- Headlamps (halogen/LED/Xenon)
- Tail lamps
- Fog lamps
- DRLs (Daytime Running Lights)
- Turn indicators
- Side marker lights
- Number plate lights



## **Glass & Mirrors**

- Windshield
- Rear windshield
- Side windows
- Rearview mirrors (interior and exterior)
- Mirror motors and defrosters

## **Wipers & Washers**

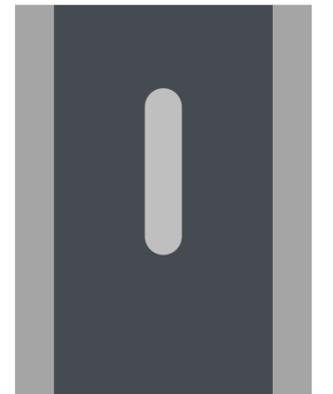
- Wiper arms and blades
- Washer nozzles and fluid tank
- Wiper motor and linkages

## **Doors & Access Systems**

- Door locks and handles
- Central locking system
- Window regulators (manual/electric)
- Hinges and door seals

## **Exterior Trim & Accessories**

- Emblems and badges
- Grille
- Mudguards/flaps
- Roof rails
- Spoilers (if applicable)
- Antennas



# Electrical & Electronics

## Battery & Power Distribution

- Battery and terminals
- Fuses and relays
- Alternator
- Starter motor

## Control Modules (ECUs)

- Engine Control Unit (ECU)
- Transmission Control Module (TCM)
- Body Control Module (BCM)
- ABS ECU
- Airbag ECU
- Infotainment ECU

## Wiring Harness

- Engine harness
- Dashboard harness
- Door harness
- Rear harness
- Chassis harness

## Sensors

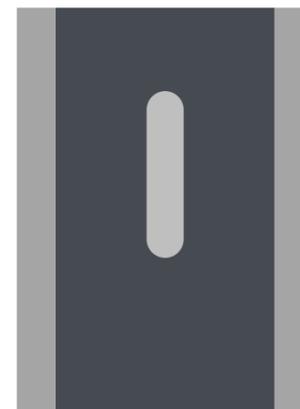
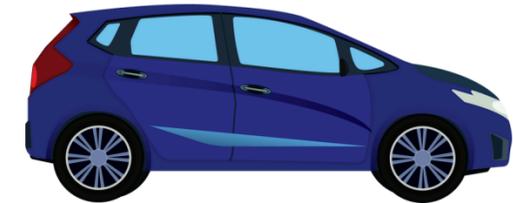
- MAP, MAF, Crankshaft, Camshaft sensors
- Temperature and pressure sensors
- Knock sensor
- Parking sensors
- Rain and light sensors

## Infotainment & Connectivity

- Head unit
- Speakers and amplifiers
- Microphones
- GPS and navigation system
- Bluetooth/Wi-Fi modules

## Driver Assistance & Safety (ADAS)

- Camera modules (front, rear, 360°)
- Radar units
- LIDAR sensors (for autonomous features)
- Lane assist, blind spot detection modules



# Safety Systems

## Driver and passenger airbags

- Side and curtain airbags
- Knee airbags

## Seat Belt Systems

- Seat belt pre-tensioners
- Load limiters
- Sensors for buckling detection

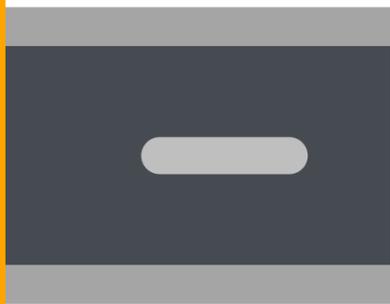
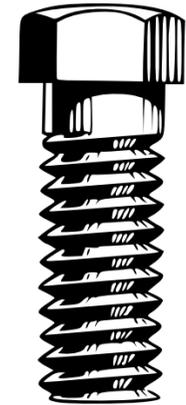
## Crash Structures

- Crumple zones
- Impact beams (side and front)
- Reinforcements in pillars and roof



# Miscellaneous & Consumables

- Fasteners (nuts, bolts, clips, rivets)
- Adhesives and sealants
- Paint and coatings
- Lubricants, greases, coolants
- Windscreen washer fluid
- Rust-proofing materials





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