Project 1

Internet of Things

Internet of things is a smart way of connecting any devices (doors, bats, curtains, gates) to a hub where these devices exchange data with one another and performs actions accordingly with simple commands like clicks of button or autonomously.

Examples :

Cars – Tesla Motors self driving

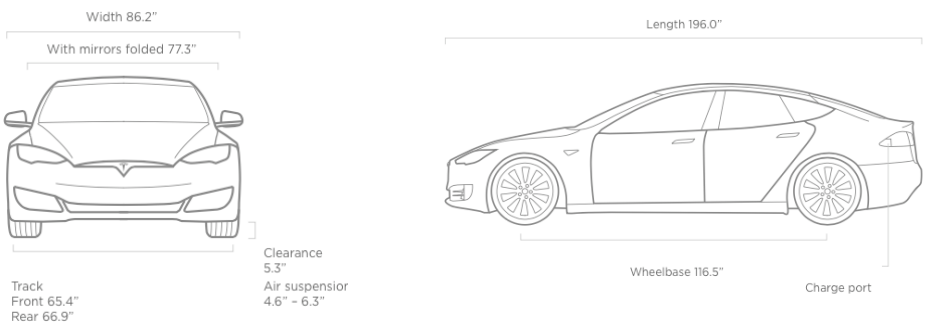
Sports wear – Smart wrist bands, Golf sticks, Rackets

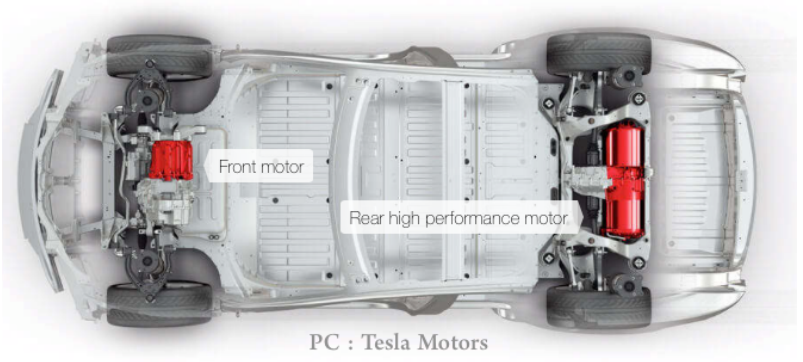
Smart Home - Lights, Airconditioning, Gates, Doors, Windows, Coffee maker all coonnected together

TESLA MOTORS

1. Physical Components

i. Chassis - Made of Aluminium for light weight and high strength
ii. Electric Motors - Enabling Four Wheel Drive, Terrian Responce

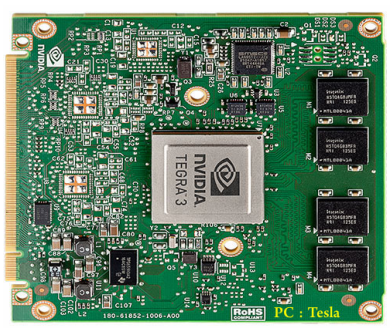




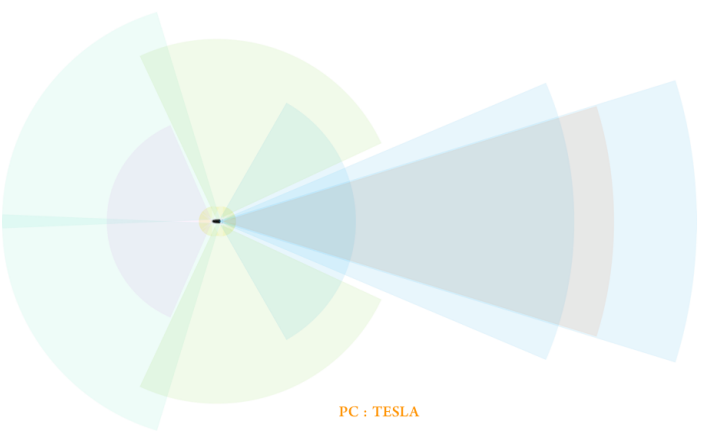
PC : Tesla Motors

2. Smart Components

i. 65 CPUS to perform various tasks
ii. 12 Ultrasonic sensors
iii. Forward Facing radar able to see through rain, fog
iv. 8 Surrounding cameras providing 360 degree view up to 250 meters of range
v. Biohazard Air filter



PC : Tesla


PC : TESLA

3. Connectivity

i. AT&T Machine-to-machine solution for Network Access
ii. Bluetooth 2.4 / 5 GHz for Mobile device connection
iii. Wires
iv. Ultrasonic and Radio Frequencies form sensors

4. Capabilities

i. Full Self Driving
ii. All wheel Drive
iii. Antilock Breaking System
iv. Electronic Parking
v. Collision Avoidance
vi. Automatic Emergency Braking
vii. Smart Air suspension
viii. Electronic Stability and Traction Control
ix. Biohazard Air filter

5. Intresting Things about Tesla

i. Founded by Martin Eberhard and Marc Tarpenning
ii. First model Roadster launched in 2008
iii. 30 minutes to charge to 170 mile range
iv. Costs $14 to fully charge Model X at home
v. 100% renewable energy i.e solar powered
vi. Since 2010 Tesla stock has raised by 1000%
vii. Tesla has never turned an annual profit

6. Problem Solved by Tesla Motors

1. Environment Pollution : Zero emission of carbon in environment by adopting all electric technology

2. Efficient Ride : Reducing cost per ride as it costs only $14 to fully charge for 200+ miles

3. Utilizing free energy through Solar powered super charge station and power walls

4. Reduction in Motor Hazards by implementing collision avoidance, emergency breaking, Antilock Breaking System (ABS) , 8 eight bags for safety and Bio-Weapon Defense

5. Full self Driving Hardware for insuring highest level of safety and providing free time for user to work on important things other than driving.


Photo Credit : Tesla Motors