Self-driving Car Model

System Functionality

|  |  |  |
| --- | --- | --- |
| Sense | Ultrasonic | Sensing is the ability to accurately perceive the environment around the vehicle. |
| Laser |
| Radar |
| Camera |
| Plan | On-board computer system | Planning, commonly referred to as driving policy, is where decisions are made about what strategic (i.e. change lanes) and tactical (i.e. overtake the blue car) decisions to take. |
| Act | Power system | Acting is the issuance of the decision (translated into mathematical trajectories and velocities) to the various actuators within the vehicle to perform the driving decision. |
| Breaking system |
| Steering system |
| … |

Sensing Coverage

|  |  |
| --- | --- |
| Sensing Coverage | Front |
| Rear |
| Left |
| Right |

Action of car

|  |  |
| --- | --- |
| Action of car | Start |
| Left steering |
| Right steering |
| Acceleration |
| Cruise |
| Breaking |
| Reversing |

Traffic rules

|  |  |
| --- | --- |
| Traffic rules | Speed limit |
| No lane changing |
| No overtaking |