The Design of cruise control application is illustrated with the below diagram.

The Sensor and Algorith module extracts the initial config parameters from the ParamServer module during the startup. The config parameters are available in ParamServer.yaml file (initial and final velocity and acceleration)

Once the vechicle attained its set velocity(80Km/h), the user can modify the cruise control velocity via UserInput module.

Sensor

ParamServer

Algorithm

UserInput