VHDL Assignment (Traffic Light Controller)

* The VHDL code must be in done in Xilinx software.

In this assignment, you are asked to design, implement and demonstrate the Traffic Light Controller as a Digital controller as hardware (using remote lab or DSX kit). First let’s look at how such a system works in the real world. A Traffic Light Controller of intersection of T section with sensor to detect the waiting car(s) in the intersection. When the car detected by the sensor, a timer will start counting for some time to give a car driver to turn right since the turn right can be happen even the main road is red ( the driver can turn right with careful ). If the timer reach the predefined time, the Traffic Light Controller start to change in the logical way (red, green, yellow) with certain time for each light.

**Specification:**

**Traffic Light Controller:**





