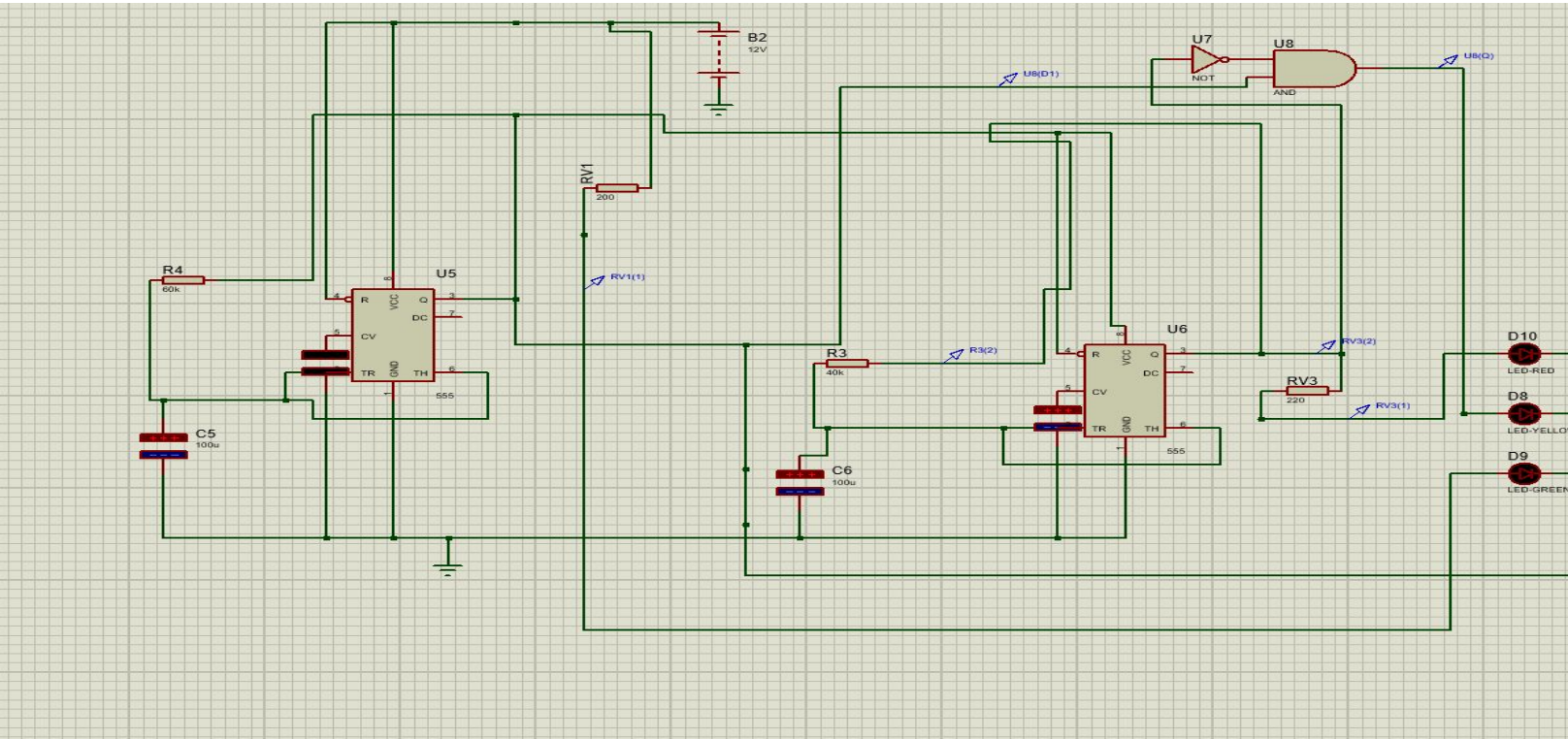
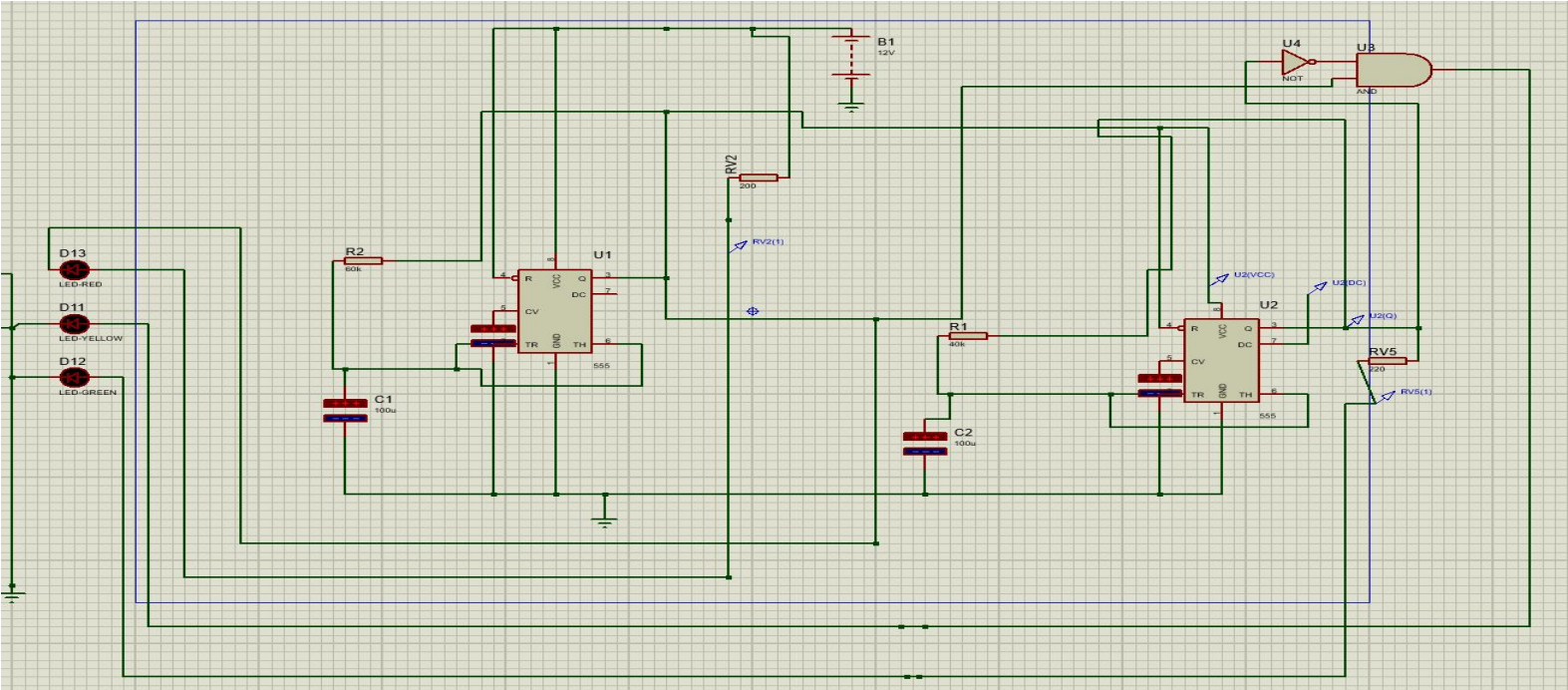


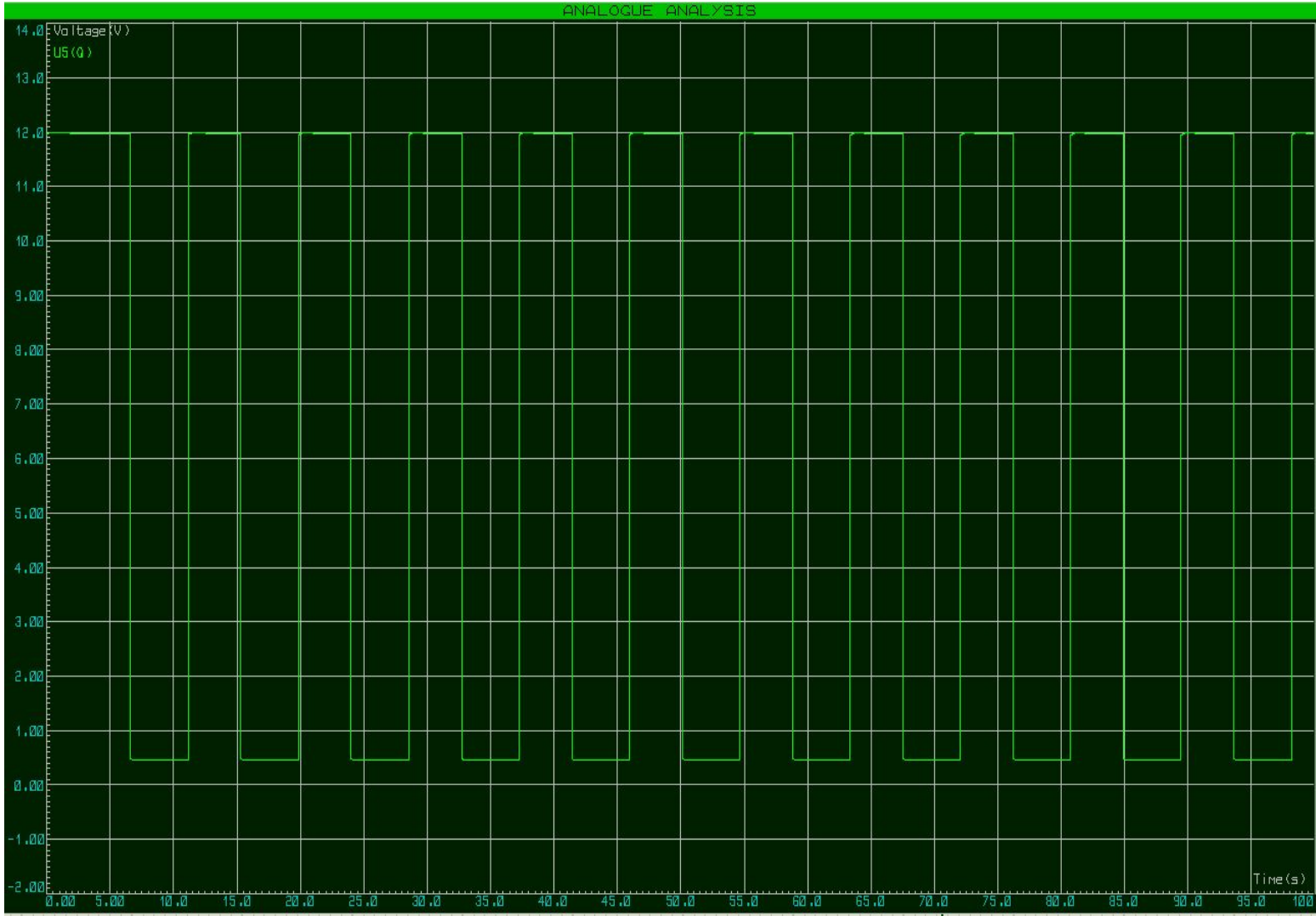
Left Subhalf:



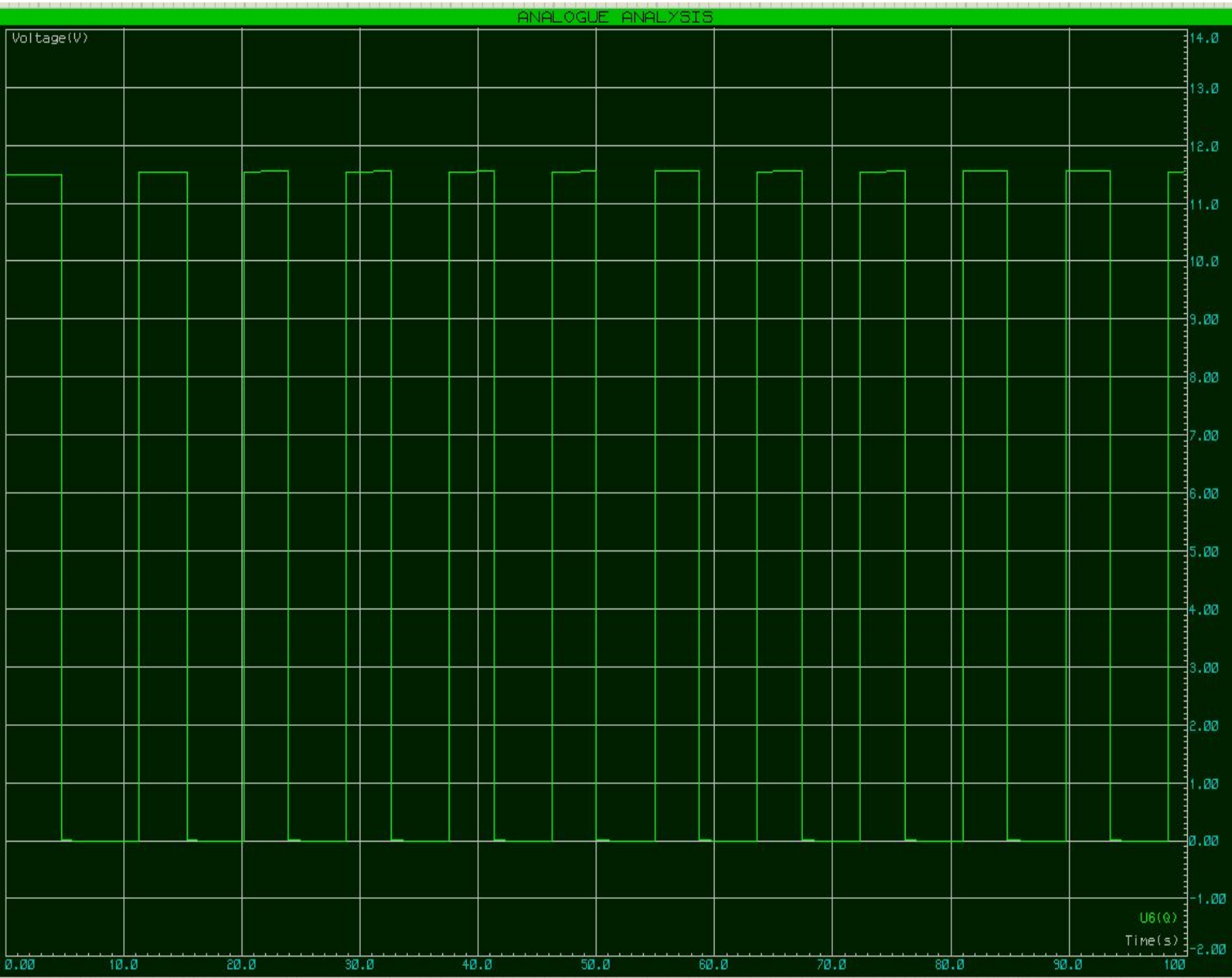
Right Subhalf:



Plots for output of Timer 1 (Red Light) :

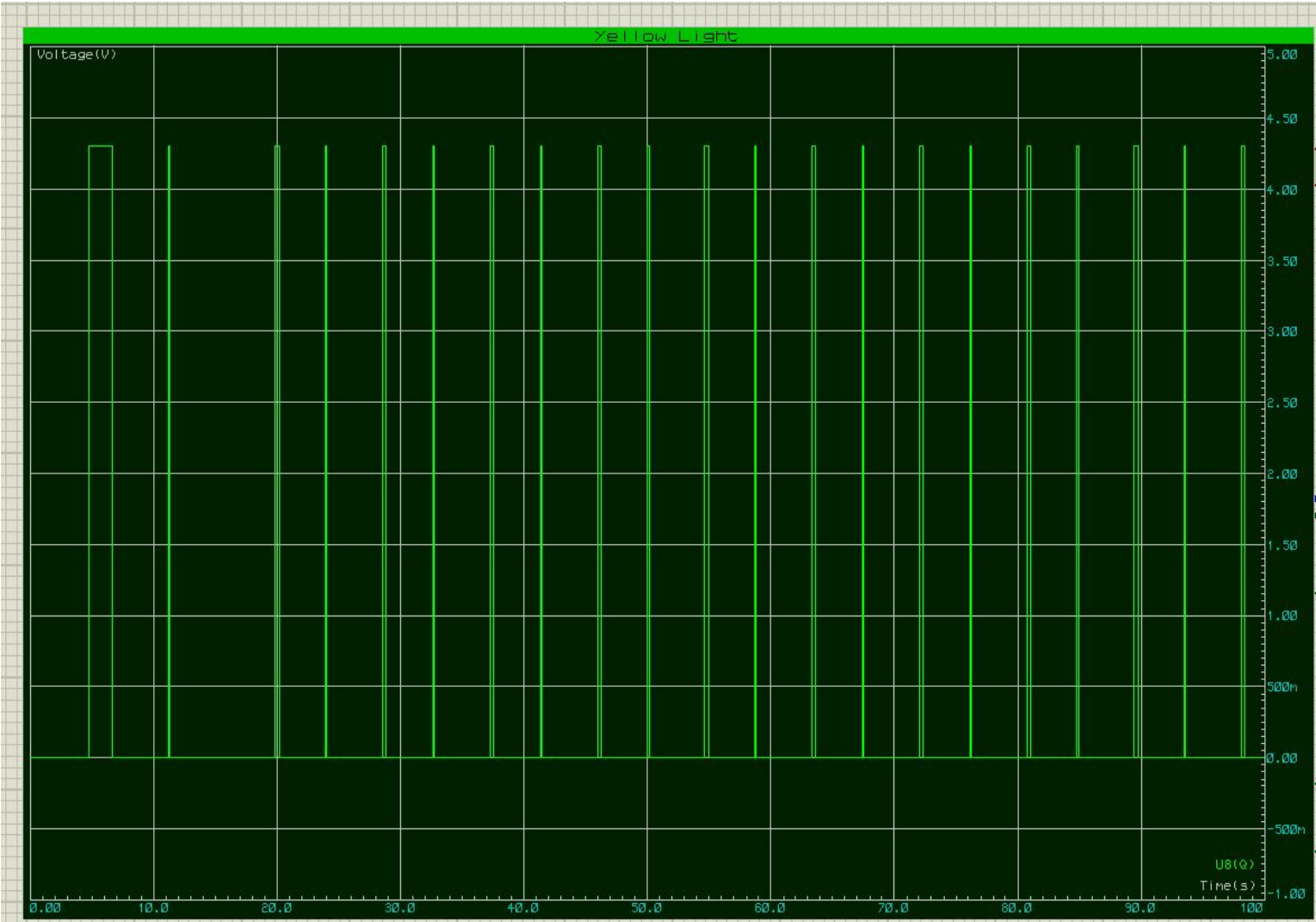


Plots for output of Timer 2 (Green Light):





Plots for output of And gate (Yellow Light):



**Time period of Timer Chip 1 ~ 8sec.**

**Time Period of Timer Chip 2 ~ 6 sec.**

We have calculated Resistance and Capacitance required with the formula,

$$T = 2 * \ln 2 * R * C$$

### **The explanation for the basic structure (Right sub half):**

RED led is connected to the first timer (left) in reverse bias. The green signal is connected to the second timer (right) in the forward bias. So when the output of the first timer is low, the red signal glows. As the VCC of the second timer is connected to the output of the first, whenever the output of the first timer goes high, the green led glows. In between the time when the red and green goes off, the yellow signal glows, which is connected through a digital logic. We used two such circuits to demonstrate two different traffic signal units which complement each other to simulate the real-life scenario of traffic signals.