

# Assessment – 2: Gear Shifting

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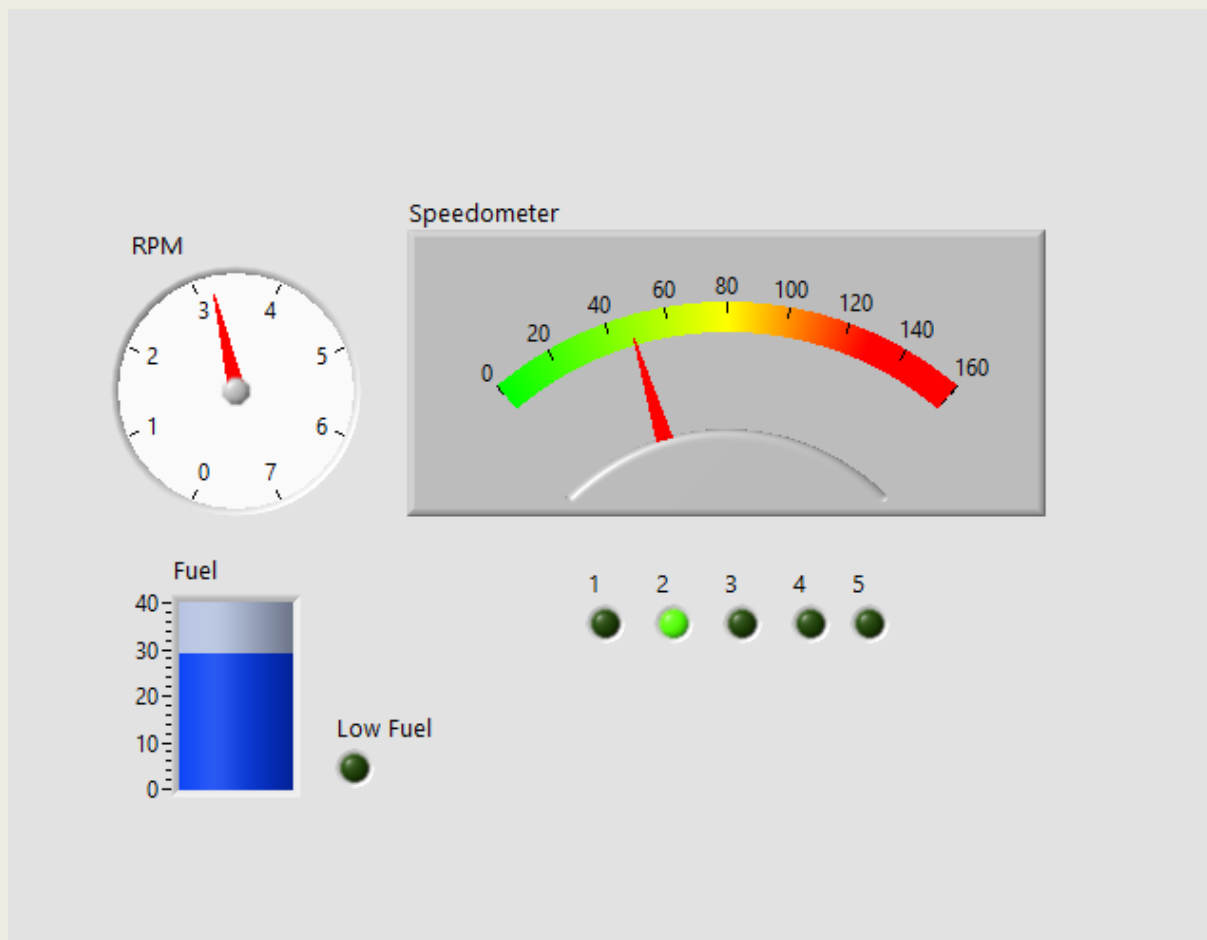
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**Subject:** ECE2023

**Slot:** L15 + L16

*The diagrams show the front panel of a car, with a speedometer, an RPM dial and fuel level with a warning symbol*



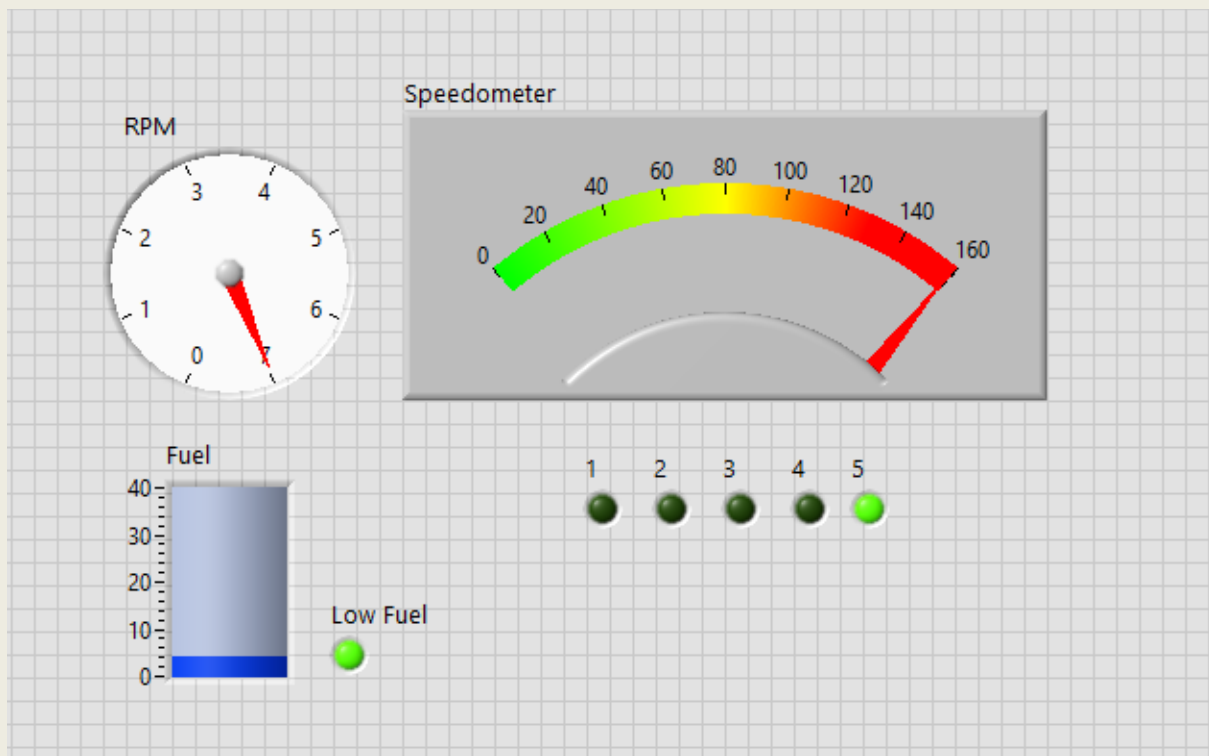
*The 5 LEDs show the different gear shifts which vary automatically according to the speed at which the vehicle is travelling*

*Speedometer extends from 0 to 160*

*The RPM gauge extends from 0 to 7 (x 1000)*

*Fuel tank has the capacity of 40 litres of fuel*

*5 gear automatic shift system*



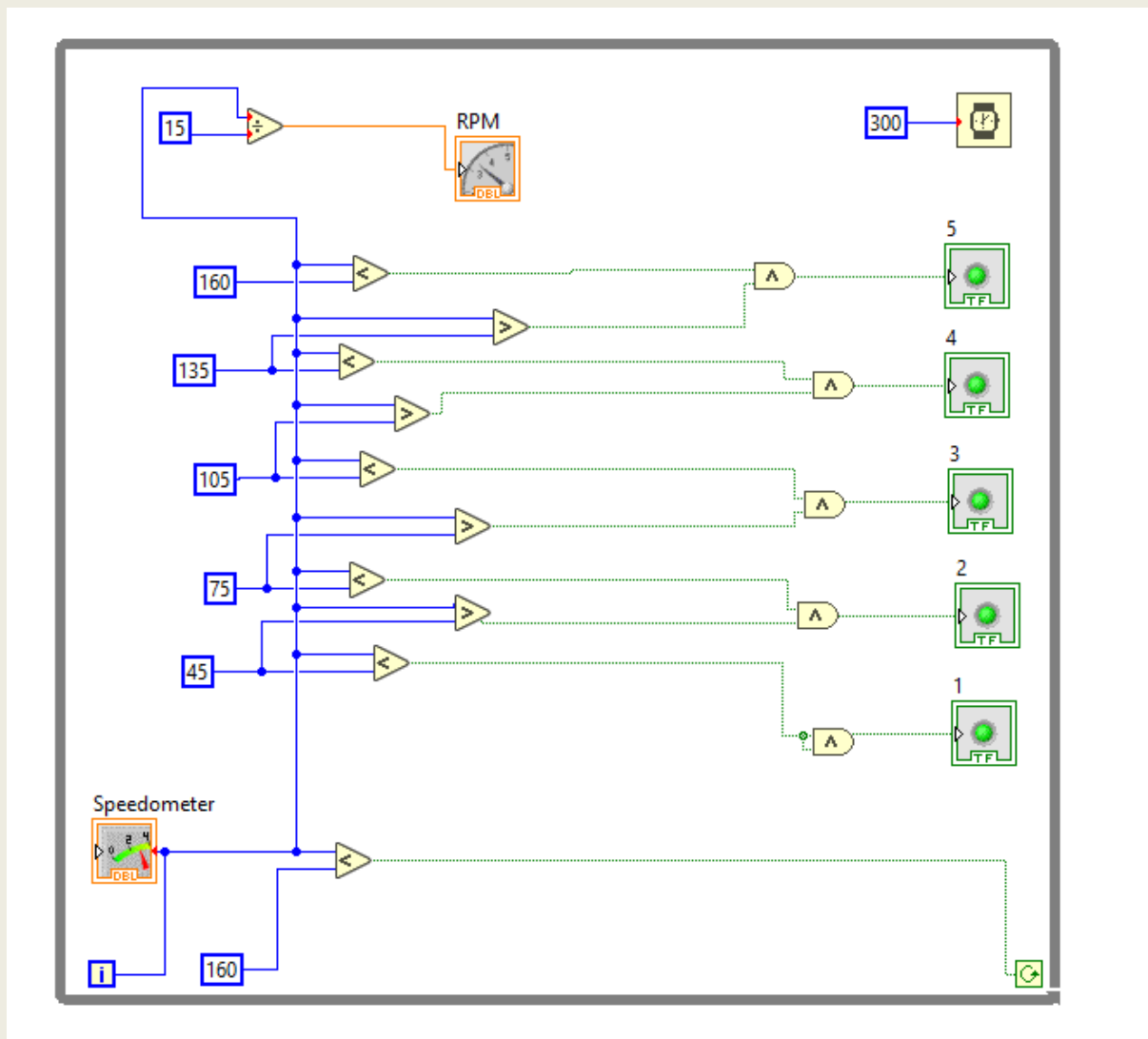
### Circuit Diagram 1:

*RPM is measured from the speed,*

*The conditions are applied for the various gear shifts and the loop repeats till the vehicle reaches the maximum speed.*

*Gear shifts are taken according to the speed of the vehicle and their upper and lower limits are applied inside the loop*

*\*\*\*RPM is **supposed** to be moving down each time there is a gear shift, but could not be shown in the circuit diagram.*



### *Circuit Diagram 2:*

*This diagram is for controlling the fuel tank*

*Loop from 1 to 40 and the value 1 is reduced from the maximum capacity to show the fuel decreasing as the vehicle moves.*

*There is a warning light for the fuel when it moves below 5 litres*

