

# EXPLANATION:-

In a four way traffic as we know when one side is allowed to move other three sides do not move. On feasible intervals each side is allowed to move. So based on that the codes defines the feasibility for mobility of each side.

First we declared globally 4 integer arrays which contain the pins for the respective red, yellow, green lights of the traffic signal.

In setup part we initialize the pin-Mode command for each pin of each respective light and also assigns the digital value (LOW) so that no light glows.

Then comes the loop part where first 4 lines of code gives the command for the lighting the green signal of lane-1 and after 10 seconds the command is changes so that both in lane-1 and lane-2 yellow light glows and the red light of lane-2 is turned off and green light of lane-1 is turned off. Then after 4 seconds command is given to turn the green light on for lane-2 but off the yellow light for lane-1 and off the yellow light for lane-2 and turn on the red light for lane-1. Then after 10 seconds command is given to turn on the yellow lights of lane-2 and lane-3 whereas to turn of the red light of lane-3 and green light of lane2. After 4 seconds command is given to turn on the green light for lane-3 and turn on the red light for lane-2 whereas to turn off the yellow light for both lane-2 and lane-3. After 10 seconds command is given to turn ON the yellow lights of lane-3 and lane-4 whereas to turn Off the green light of lane-3 and red light of lane-4. After 4 seconds again command is given to turn ON the green light of lane-4 and turn ON the red lights for lane-3 whereas to turn OFF the yellow lights for both lane-3 and lane-4. After 10 seconds command is given to turn ON the yellow light for both the lane-4 and lane-1 and to turn OFF the green light of lane-4 and red light of lane-1. And finally after 4 seconds the program restarts form initial condition of green light ON for lane-1 and red lights ON for other 3 lanes.

# BIBLIOGRAPHY:-

1. Tutorial for coding in arduino from Youtube.
2. Arduino Programming Notebook , AUTHOR-Brian W. Evans
3. Others links from Google.