

10's second count down traffic light control apparatus for traffic junction

DRAWING DESCRIPTION

(A)

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The 10's second count down traffic light control is a new apparatus. The novelty of the new apparatus are the changing of the light from green to amber and finally to red and its rectangle shape which embedded the 3 colour lights and in some cases, green or red arrow in a single housing. The screen of the new apparatus gives motorists a better view because of its size, shape and lighting in any weather conditions and it also gives warning to motorist of the intended change and to allow them to take (depending on their speed and distance) appropriate steps. The new apparatus can be placed horizontally or vertically. The new apparatus uses Light Emitting Diode ('LED') and the front panel of the new apparatus has ten blocks of LED. Full explanation can be found in the Abstract lodged herein.

0. The screen of the new apparatus of a Traffic light control is covered with green;
1. Traffic light begins to change from green to red by first switching off 1st block of LED.
2. The next second, the 2nd block is switched off
3. The 3rd second with the 3rd Block being switched off
4. On the 4th second, the 4th block is switched off
5. The 5th block is switched off at the 5th second
6. Followed by the 6th block at 6th second
7. When reaching the 7th second, the remaining lighted green changed to amber.
8. The switching off of the 8th block in amber light continues at the 8th second
9. The 9th block is switched off at the 9th second
10. Now the screen is completely blank for a second
11. Red light is on the whole screen

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10's second count down traffic light control apparatus for traffic junction

DRAWING DESCRIPTION

(B)

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Drawing B shows the incorporation of a green arrow in the 10's second count down traffic light control apparatus. The aims and functions are quite similar as in Drawing A and as explained in the Abstract lodged herein.

0. The screen of the new apparatus of a Traffic light control is covered with green;
1. Traffic light begins to change from green to red with green arrow by first switching off 1st block of LED.
2. The next second, the 2nd block is switched off
3. The 3rd second with the 3rd Block being switched off
4. On the 4th second, the 4th block is switched off
5. The 5th block is switched off at the 5th second
6. Followed by the 6th block at 6th second
7. When reaching the 7th second, the remaining lighted green changed to amber,
8. The switching off of the 8th block in amber light continues at the 8th second
9. The 9th block is switched off at the 9th second
10. The screen is completely blank for a second
11. Followed by red light is on the whole screen
12. A green arrow allowing the motorist to turn appears and it will blink when it about to switch off and turns to red
13. Now the screen is covered with red.

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10's second count down traffic light control apparatus for traffic junction

DRAWING DESCRIPTION

(C)

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Drawing C shows the screen of the new apparatus of the traffic light control with green arrow allowing motorists to turn. Likewise its aims and functions are similar with drawing A and as explained in the Abstract lodged herein.

0. The screen of the new apparatus of a Traffic light control is green with the last 3 blocks showing a green arrow on the same panel
1. Traffic light begins to change from green to red with green arrow by first switching off 1st block of LED. The green arrow's light remain lighted.
2. The next second, the 2nd block is switched off. The green arrow's light remain lighted.
3. The 3rd second with the 3rd Block being switched off. The green arrow's light remain lighted.
4. On the 4th second, the 4th block is switched off . The green arrow's light remain lighted.
5. The 5th block is switched off at the 5th second. The green arrow's light remain lighted.
6. Followed by the 6th block at 6th second. The green arrow's light remain lighted.
7. When reaching the 7th second, the green arrow's light changes to amber.
8. The switching off of the 8th block in amber light continues at the 8th second
9. The 9th block is switched off at the 9th second
10. The screen is completely blank for a second
11. Followed by red light is on the whole screen

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10's second count down traffic light control apparatus for traffic junction

DRAWING DESCRIPTION

(D)

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Drawing D shows the screen of the new apparatus of the traffic light control with red blinking arrow allowing motorists to turn when traffic light is in red. The aims and functions are the same as in drawing A and as explained in the Abstract lodged herein.

0. The screen of the new apparatus of a Traffic light control is covered with green;
1. Traffic light begins to change from green to red by first switching off 1st block of LED.
2. The next second, the 2nd block is switched off
3. The 3rd second with the 3rd Block being switched off
4. On the 4th second, the 4th block is switched off
5. The 5th block is switched off at the 5th second
6. Followed by the 6th block at 6th second
7. When reaching the 7th second, the remaining lighted green changed to amber.
8. The switching off of the 8th block in amber light continues at the 8th second
9. The 9th block is switched off at the 9th second
10. Now the screen is completely blank for a second
11. Red light with red blinking arrow are on the same screen

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10's second count down traffic light control apparatus for traffic junction

DRAWING DESCRIPTION

(E)

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Drawing E shows the new apparatus of the traffic light control in horizontal position. The aims and functions are the same as in drawing A and as explained in the Abstract lodged herein.

NOTE: THE SWITCHING OF THE BLOCK OF LED CAN BEGIN FROM THE BOTTOM OR FROM THE TOP.

0. The screen of the new apparatus of a Traffic light control is covered with green;
1. Traffic light begins to change from green to red by first switching off 1st block of LED.
2. The next second, the 2nd block is switched off
3. The 3rd second with the 3rd Block being switched off
4. On the 4th second, the 4th block is switched off
5. The 5th block is switched off at the 5th second
6. Followed by the 6th block at 6th second
7. When reaching the 7th second, the remaining lighted green changed to amber.
8. The switching off of the 8th block in amber light continues at the 8th second
9. The 9th block is switched off at the 9th second
10. Now the screen is completely blank for a second
11. Red light with red blinking arrow are on the same screen

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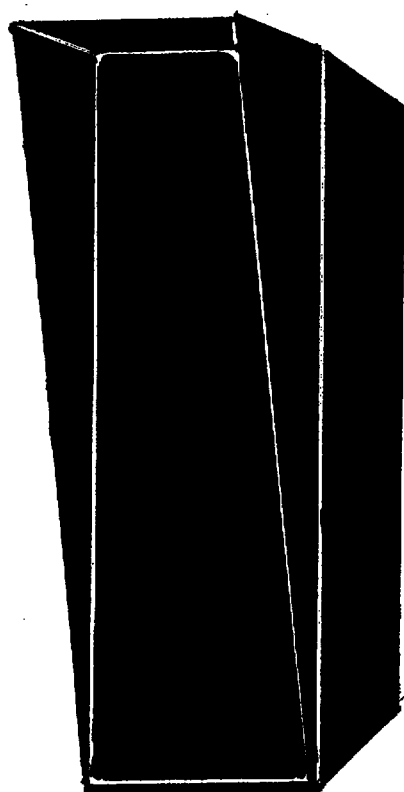
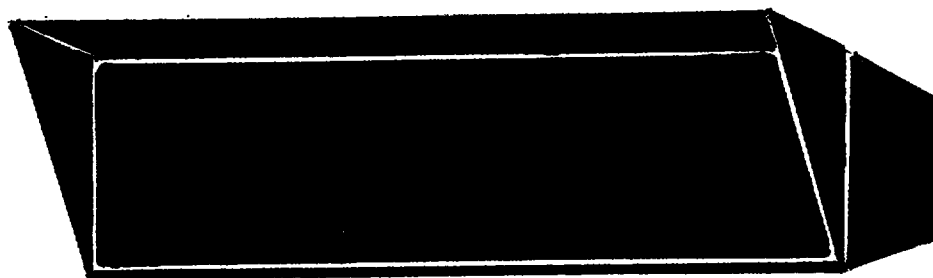
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DRAWING DESCRIPTION

(F)

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Drawing F shows the new apparatus of the traffic light control



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Claims

1. **A New Traffic Light** apparatus comprising: a housing having one single opening with a rectangular array of tri-coloured light emitting diodes (LED) performing the functions of the three standard traffic lights but enables the road user to know exactly when the green light will turn red.
2. The **New Traffic Light** according to Claim 1 will when on the red mode, the housing will light up entirely in red (a standard round stop sign within the rectangle can be so configured if needed)
3. The **New Traffic Light** according to Claim 2 after the stipulated time ordered for the red stop state is over the LEDs in the housing will light up in green.
4. The **New Traffic Light** according to Claim 3 will stay green for as long as the stipulated time. Ten seconds before the expiry of the stipulated time a block amounting to 10% of the LED's (a 3 line block) will be switched off at the end of the first second. Further blocks of 10% will be shut off at the end of each subsequent second until 60% of the green LED's have been shut off. The remaining 30% of the LED's will switch from green light to amber light.
5. The **New Traffic Light** according to Claim 4 will be lit in amber light and will fill the remaining block of 9 lines of LED's. These LEDs will shut off in blocks of 3 lines (10%) of the original at the end of each second.
6. The **New Traffic Light** according to Claim 5 after the last block of amber LED's have been switched off, the housing will be unlit for 1 second.
7. The **New Traffic Light** according to Claim 6 will at end of the last second the LEDs in the housing will be lit up in red.

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8. The **New Traffic Light** according to Claim 2 can be so configured that 30% of the end of the red lighted block can be made to show a green arrow if stipulated. Three seconds before the green arrow is shut off the said green arrow will blink three times at one blink per second
9. The **New Traffic Light** in Claim 3 where the green light can also be configured to show a green arrow with the last block of 9 lines of the LEDs. Ten seconds before the red comes on, the first 3-line block will shut off. A block of green lights will shut off at the end of every subsequent second. After the 6th second has elapsed the green arrow area of LEDs will switch to amber light filling the last 30% block of the housing. The amber lights will switch off 3 lines in the block at the end of every second until the housing is left empty of light for 1 second. The LEDs in the whole housing then lights up in red.
10. The **New Traffic Light** according to Claim 2 where a left turn on red is permitted 30% of the red area on the left edge of the housing will show a flashing red arrow. The whole housing will then turn green at the stipulated time.
11. The **New Traffic Light** according to Claim 1 may be fixed horizontally or vertically.

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