

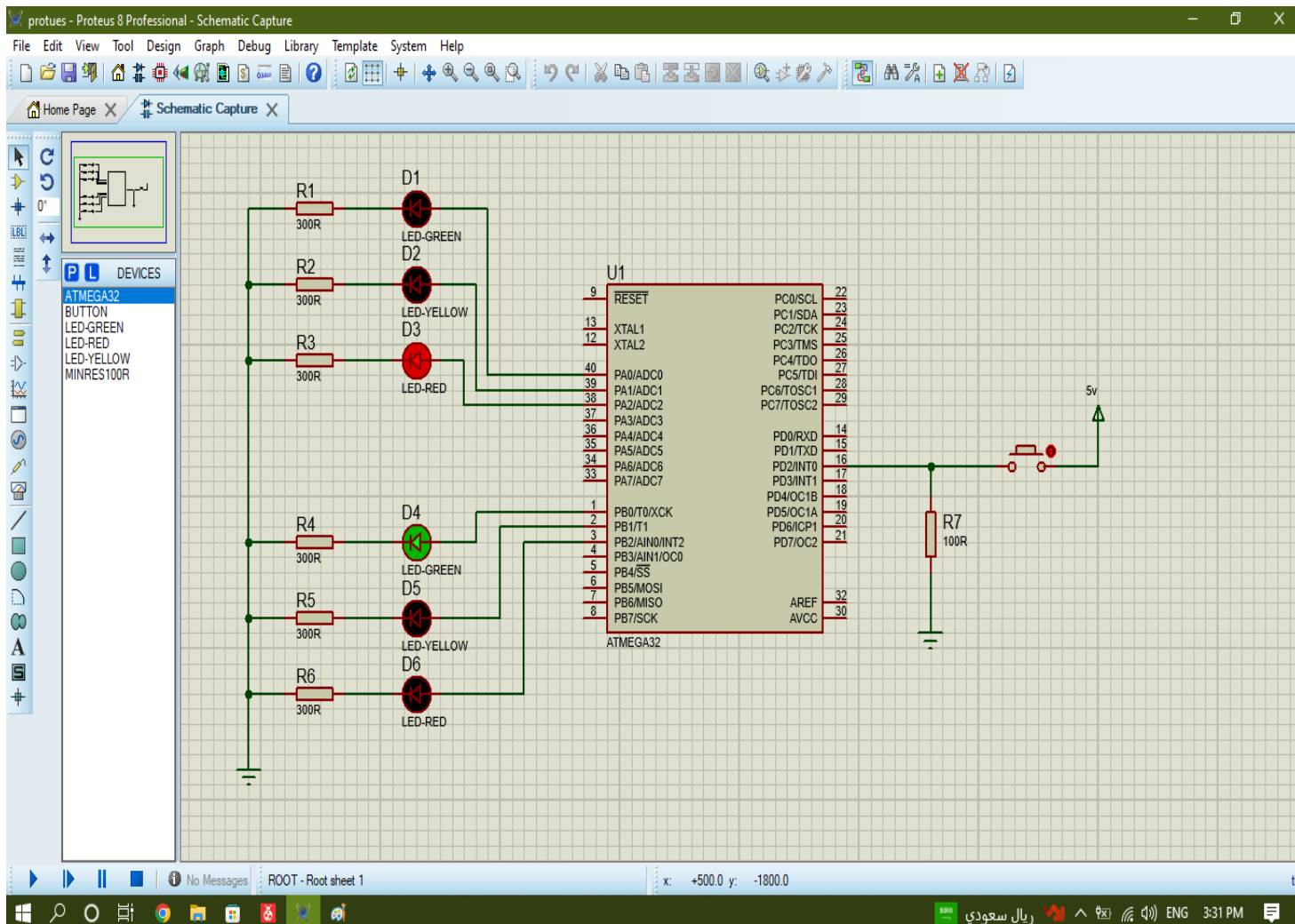
FWD

Embedded System professional track

# **On-demand Traffic Light control**

By: Mohamed Gamal

# System description



The project seeks to offer a solution for on-demand traffic management. To let pedestrians pass, it has a pedestrian button.

When the button is pressed, the system can tell. After then, it would make a decision based on the situation. By ensuring that cars are stopped before moving on, it permits pedestrians to stroll.

# System Design

1. ATmega32 microcontroller
2. One push button connected to INT0 pin for pedestrian
3. Three LEDs for cars - Green, Yellow, and Red
4. Three LEDs for pedestrians - Green, Yellow, and Red
5. 6 200 Ohm resistors
6. 1 100 Ohm resistors

Proteus simulator has been used to test the programme. For complete system functionality, it should be used in traffic light control systems on streets that have a pedestrian push button integrated.

The pedestrian push button is the sole method of system input. Given the current state, time, and push button press status, it manages 6 LEDs simultaneously for output.

# Flow Chart

