Software flowchout · Initialize pins (ledPin-output pin, button pin-input pin) · Initialize flashing rate (2 Hz) check for button press (digital Read (button Pin)) , if TRUE if mode 4 change operating mode flashing light function (check if 500 ms have passed using millis()) if mode 0-3 *ledPin* FALSE SET PWN to some IF TRUE low

fraction of PWM\_MAX(255) using switch case tree

digital write (led Pin, PWM)

Write led Pin State to HIGH and mark current time