

```

1. library IEEE;
2. use IEEE.STD_LOGIC_1164.ALL;
3. use IEEE.NUMERIC_STD.ALL;
4.
5. entity sekunti_laskuri is
6.     port (
7.         clk : in STD_LOGIC;
8.         led : out STD_LOGIC_VECTOR(6 downto 0)
9.     );
10. end sekunti_laskuri;
11.
12.
13.
14. architecture behavioral of sekunti_laskuri is
15.     signal clk_counter : unsigned(25 downto 0) := (others => '0');
16.     signal sec_counter : unsigned(6 downto 0) := (others => '0');
17.     constant MAX_COUNT : unsigned(25 downto 0) := to_unsigned(49999999, 26);
18. begin
19.
20. process(clk)
21. begin
22.     if rising_edge(clk) then
23.         clk_counter <= clk_counter + 1;
24.
25.         if clk_counter = MAX_COUNT then
26.             clk_counter <= (others => '0');
27.             sec_counter <= sec_counter + 1;
28.
29.             if sec_counter = "1111111" then
30.                 sec_counter <= (others => '0');
31.
32.             end if;
33.         end if;
34.     end if;
35. end process;
36.
37.
38.     led <= std_logic_vector(sec_counter);
39.
40. end behavioral;

```

demo:

[74748637268__666A11F6-08A6-49EA-8AE3-641C0290DB2B.MOV](#)