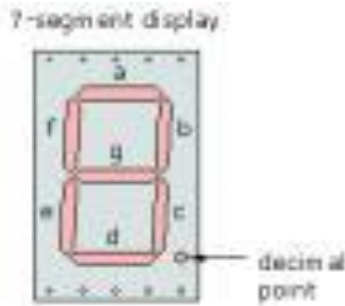
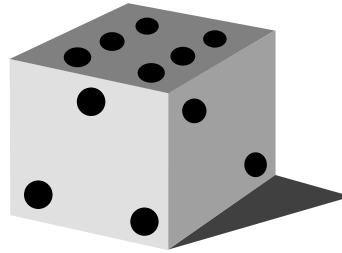


Design your own electronic dice.



Segment(0 to 6) is resp. connected to a, b, c, d, e, f, g.

Internally in the dice a high frequency oscillator is available that generates the 'clk' signal (50 MHz). After power-up there is a circuit that performs the 'reset' signal. Hence the circuit has no external reset pin. Reset and button is active low. A led of the 7-segment display is on when the corresponding output bit is '0'.

```
LIBRARY ieee;
USE ieee.std_logic_1164.ALL;
ENTITY dice IS
    PORT (clk      : IN std_logic;
          reset    : IN std_logic;
          button   : IN std_logic;
          display  : OUT std_logic_vector(0 TO 6));
END dice;
```