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BSCpE- 3A

ENCODER WITH PRIORITY

```
library IEEE;  
use IEEE.STD_LOGIC_1164.all;
```

```
entity kris_ewp is  
    port (  
        a : in STD_LOGIC_VECTOR(3 downto 0);  
        b : out STD_LOGIC_VECTOR(1 downto 0)  
    );  
end kris_ewp;
```

```
architecture bhv of kris_ewp is  
begin  
    process(a)  
    begin  
        if (a = (not "1000")) then  
            b <= "00";  
        elsif (a = (not "0100")) then  
            b <= "01";  
        elsif (a = (not "0010")) then  
            b <= "10";  
        elsif (a = (not "0001")) then  
            b <= "11";  
        else  
            b <= "ZZ";  
        end if;  
    end process;  
end bhv;
```

