/Users/hbm/Dropbox/DTU-Amigos/0...Machine/src/processing_unit.vhd Page 2 of 3 Saved: 5/5/13 8:27:12 PM Printed For: Hjalte Bested Møller

```
-- This process sets the price of the 3 products. When one of the
49
       -- price_'product' signals are asserted, the 'product' signal is set
50
       -- to '1', which will cause 'product'_count to keep adding + 1 on
51
       -- every clock, until its MSB = '1' and the 'product' signal will be
52
       -- set back to '0'. For both the price_'product' and the 'product'
53
       -- signals, cola overrules hash, which overrules aqua.
54
55
56
       process(price cola, price hash, price agua, clock)
57
       begin
58
           if rising_edge(clock) then
59
               if price cola = '1' then
60
                    cola <= '1';
61
                    price <= "010010";
62
               elsif price hash = '1' then
63
                    hash <= '1';
64
                    price <= "110111";</pre>
65
               elsif price agua = '1' then
66
                    aqua <= '1';
67
                    price <= "001100";</pre>
68
               elsif cola = '1' then
69
                    cola count <= cola count next;</pre>
70
                    if cola count(10) = '1' then
71
                        cola
                              <= '0';
72
                        cola count <= "00000000000";
73
                    end if;
74
               elsif hash = '1' then
75
                    hash count <= hash count next;
76
                    if hash_count(10) = '1' then
77
                        hash
                               <= '0';
78
                        hash_count <= "00000000000";
79
                    end if;
80
               elsif aqua = '1' then
81
                    aqua_count <= aqua_count_next;</pre>
82
                    if aqua_count(10) = '1' then
83
                                   <= '0';
                        agua
84
                        aqua count <= "00000000000";
85
                    end if:
86
               end if:
87
           end if;
88
           cola out <= cola;
89
           hash out <= hash;
90
           aqua out <= aqua;
91
       end process:
92
93
94
       -- This process adds the coin value to sum when a coin input is
95
       -- asserted. If buy is asserted sum will be deducted from price,
96
```