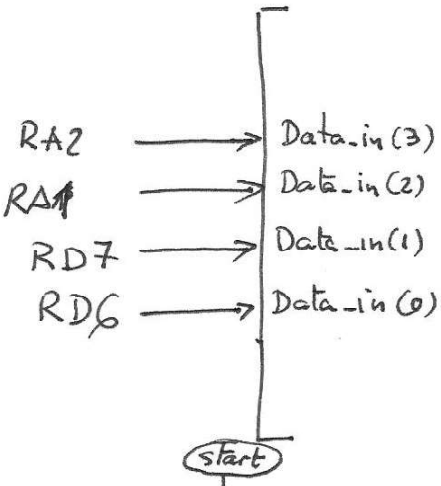
c) read_inputs()

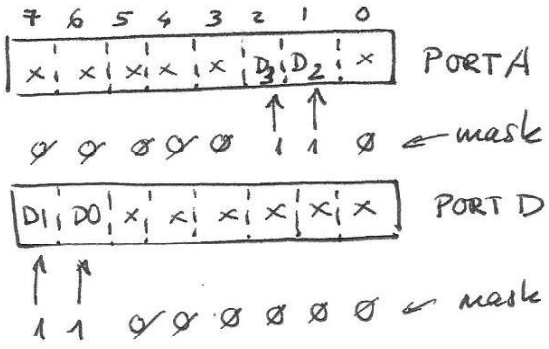
For reading the port bits and masking the bits of interest while rejecting the ones which are not in use:

The objective is

0	0	0	0	D3	D2	D1	D0

var_Data_in





AND

var_buf1 = PORTA & 0b00000110;

var_buf1 = var_buf << 1;

7	6	5	4	3	2	1	0
0	0	0	0	D3	D2	0	0

var_buf2 = PORTD & 0b11000000;

var_buf2 = var_buf2 >> 6;

7	6	5	4	3	2	1	0
0	0	0	0	0	0	D1	D0

OR

var_Data_in = var_buf1 | var_buf2;

→ Final result

7	6	5	4	3	2	1	0
0	0	0	0	D3	D2	D1	D0

(Which can be debugged using the watch window when developing & testing)

```
if (var_CLK_flag)
    read_inputs();
```

↑ sampling when necessary