

Embedded Systems

9/9/2013

①

data = 7 & (int) PORT1.PIDR.BYTE;

$$\begin{array}{r} \text{XXXX X000} \\ \& \text{0000 0111} \\ \hline \text{0000 0000} \end{array}$$
 ← press all Three button

0 → 1
anything else → 0

! → ~~XXXX~~ 0000 0001

$$\begin{array}{r} \text{XXXX X000} \\ \& \text{0000 0110} \\ \hline \end{array}$$

SW1 only pressed

$$\begin{array}{r} \text{0000 0110} \\ \& \text{0000 0001} \\ \hline \text{0000 0000} \end{array}$$
 ! → 1

$$\begin{array}{r} \text{XXXX X101} \\ \& \text{0000 0111} \\ \hline \text{0000 0101} \\ \& \text{0000 0001} \\ \hline \text{0000 0001} \end{array}$$
 (SW1)

SW2 only pressed

! → 0

$$\begin{array}{r} \text{0000 0101} \\ \& \text{0000 0010} \\ \hline \text{0000 0000} \end{array}$$
 ! → 1