











































## **Initialize and Read from a Sensor**





## **Initialize and Write to a Printer**

```
void Init(void){// PJ7=READY in
            DDRJ = 0x40; // PJ6=START out
            PPSJ = 0x80; // rise on PJ7
            DDRT = 0xFF; // PT7-0 DATA out
            PTJ |= 0x40;} // START=1
          void Out(unsigned char data){
            PIFJ = 0x80; // clear flag
            PTJ &=~0x40; // START=0
            PTT = data; // write data
            PTJ |= 0x40; // START=1
            while((PIFJ&0x80)==0);}
                     Is this code robust - if not why not?
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U
                                               CS 5780
                             25
   University of Utah
```

Gadfly Synch to Digital Thermometer Dallas Semiconductor DS1620 • range -55 to 125 C with .5 C resolution • data encoded using 9 bit 2's complement values » → basis weights • -128, 64, 32, 16, 8, 4, 2, 1, 0.5		
Temperature	Binary Value	Hex Value
+125.0°	011111010	\$0FA
$+64.0^{\circ}$	010000000	\$080
0.5°	00000001	\$001
0°	00000000	\$000
-0.5°	111111111	\$1FF
-16.0°	111100000	\$1E0
-55.0°	110010010	\$192
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