

# EXEMPEL1

```
void startup(void) __attribute__((naked)) __attribute__((section (".start_section"))) ;
void startup ( void )
{
    __asm (
        " LDR R0,=0x2001C000\n"      /* set stack */
        " MOV SP,R0\n"
        " BL main\n"                /* call main */
        ".L1: B .L1\n"              /* never return */
    ) ;
}
```

```
void app_init ( void )
```

```
{
    __asm(" LDR    R0,=0x00005555\n");
    __asm(" LDR    R1,=0x40020C00\n");
    __asm(" STR    R0,[R1]\n");
}
```

```
void app_init ( void )
```

```
{
    * ( (unsigned long *) 0x40020C00) = 0x00005555;
}
```

```
void main(void)
```

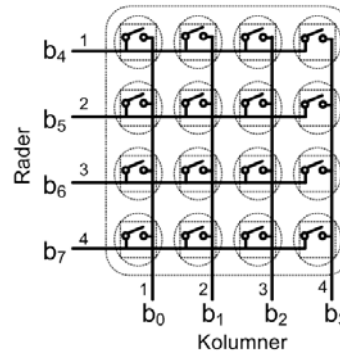
```
{
    unsigned char c;
    app_init();
    while(1){
        c = (unsigned char) *(( unsigned char *) 0x40020C11 );
        * ( (unsigned char *) 0x40020C14) = c;
    }
}
```

**Vi "bäddar in" våra  
assemblerinstruktioner i  
C-programmet...**

**samma sak i C...**

# EXEMPEL2

```
void kbdActivate( unsigned int row )
{ /* Aktivera angiven rad hos tangentbordet, eller
   * deaktivera samtliga */
  switch( row )
  {
    case 1: *GPIO_ODR_HIGH = 0x10; break;
    case 2: *GPIO_ODR_HIGH = 0x20; break;
    case 3: *GPIO_ODR_HIGH = 0x40; break;
    case 4: *GPIO_ODR_HIGH = 0x80; break;
    case 0: *GPIO_ODR_HIGH = 0x00; break;
  }
}
```



```
int kbdGetCol ( void )
{ /* Om någon tangent (i aktiverad rad)
   * är nedtryckt, returnera dess kolumnnummer,
   * annars, returnera 0 */
  unsigned char c;
  c = *GPIO_IDR_HIGH;
  if ( c & 0x8 ) return 4;
  if ( c & 0x4 ) return 3;
  if ( c & 0x2 ) return 2;
  if ( c & 0x1 ) return 1;
  return 0;
}
```

```
unsigned char keyb(void)
{
  unsigned char key[]={1,2,3,0xA,4,5,6,0xB,7,8,9,0xC,0xE,0,0xF,0xD};
  int row, col;
  for (row=1; row <=4 ; row++ ) {
    kbdActivate( row );
    if( (col = kbdGetCol ( ) ) )
    {
      kbdActivate( 0 );
      return key [4*(row-1)+(col-1) ];
    }
  }
  kbdActivate( 0 );
  return 0xFF;
}
```

