

# Goat counting program

```
#include <reg52.h>

sbit switch_pin = P1^0;

#define count_port P3

#define SWITCH_NOT_PRESSED (bit) 0

#define SWITCH_PRESSED (bit) 1

void SWITCH_Init (void)

bit SWITCH_Get_Input (const unsigned char debounce);

void DISPLAY_Init (void);

void DISPLAY_COUNT_Update (const unsigned char);

void DELAY_LOOP (const unsigned int );

void main (void)

{
    unsigned char switch_presses = 0;

    SWITCH_Init();

    DISPLAY_Init();

    while (1)
    {
```

```

if (SWITCH- Get-Input (30) == SWITCH-PRESSED)
{
    switch-presses ++;
}

DISPLAY- COUNT- update (switch-presses);

} → // while loop closing

} ⇒ // main loop closing

```

```

void SWITCH-Init (void)

```

```

{
    switch-pin = 1; // making it i/p port
}

```

```

void DISPLAY-Init (void)

```

```

{
    count- port = 0;
}

```

```

bit SWITCH-Get-Input (unsigned char debounce-period)
{

```

```

    bit returnvalue = SWITCH-NOT-PRESSED;

```



```
if (switch-pin == 0)
```

```
{
```

```
    DELAY_LOOP (debounce-period);
```

```
    if (switch-pin == 0)
```

```
    {
```

```
        while (switch-pin == 0)
```

```
        {
```

```
            Returnvalue = SWITCH-PRESSED;
```

```
        }
```

```
    }  
    return Returnvalue;
```

```
} → // closing of function
```

```
void DISPLAY-COUNT-update (const unsigned char count)
```

```
{
```

```
    count-port = count;
```

```
}
```

```
void DELAY-LOOP (const unsigned int time)
```

```
{  
    unsigned char i, j;
```

```
    for (i=0; i<time; i++)
```

```
        for (j=0; j<120; j++)
```

```
    }
```