```
1   // Link this source code with his .h file.
2   #include "servo.h"
3
4   void config_servo(void)
5   {
6     /*
7       config_servo :: void -> void
8
9       Enables the PWM, the output
10      pin is P1.20.
11
12    */
13
14    LPC_PINCON->PINSEL3|=(2<<8);                    // Configure the pin P1.20
      function as a PWM.
15    LPC_SC->PCONP|=(1<<6);                          // Configure power supply.
16    LPC_PWM1->MR0=Fpclk*Tpwm -1;                    // The MR0 is set to the
      equivalent number of TC ticks of PWM's period.
17    LPC_PWM1->PCR|=(1<<10);                         // The PWM is single mode and
      output is enabled.
18    LPC_PWM1->MCR|=(1<<1);                          // When the time counter
      reachs MR0 the time counter is reset.
19    LPC_PWM1->TCR|=(1<<0)|(1<<3);                   // Reset the time counter and
      start to count.
20    LPC_PWM1->LER|= (1<<0);                         // Enables the last changes to
      the MR0.
21  }
22
23  void set_servo(float degrees)
24  {
25    /*
26      set_servo :: float -> void
27
28      Moves the servo to the position
29      passed in the argument.
30    */
31    if(degrees >= 0 && degrees <= 180)              // If the angle doesn´t exceed
      the bounds.
32    {
33      LPC_PWM1->MR2 = (Fpclk * 0.4e-3                 // The MR2 is set to the
        equivalent number of TC ticks of the period
34      +
35      Fpclk *2e-3* degrees/180);                      // that makes the servo move
        to the position passed in the argument
36
37      LPC_PWM1->LER|=(1<<2);                          // Enables the last changes to
        the MR2
38    }
39  }
40
```