

```
1 // Preprocessor Directives to include the library only once
2 #ifndef _DAC
3 #define _DAC
4
5 // Necessary libraries:
6 #include <LPC17xx.H>
7 #include <math.h>
8 #include "state.h"
9
10 // Necessary global variable
11 extern uint16_t samples[N_SAMPLES];
12
13 // New defines:
14 #define PI 3.14 // Pi Number
15
16 // Available functions that can be called:
17 void config_DAC(void); // Enables the DAC, the output
18 // pin is P0.26.
19 void config_timer_dac(void); // Configure the Timer1 to
20 // change the sample of the DAC.
21 void generate_samples(void); // Generate the samples of the
22 // sinusoidal signal.
```