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////////////////////////////////////  
////////////////////////////////////  
////////////////////////////////////  
/// LABMAIN.C --- POLLING TEMPLATE  
////////////////////////////////////  
////////////////////////////////////
```

```
#include "shared.h"  
#include <math.h> /* Note: We get a warning if math.h is moved up */
```

```
#define sampling_rate 8000.  
#define freq_left 1000.  
#define freq_right 2000.  
#define scale 15000.0  
#define PI 3.141592653589
```

```
void labmain()  
{  
    float x_left, x_right, delta_left, delta_right;  
    float angle_left=0., angle_right=0.;  
  
    delta_left = 2.0*PI*freq_left/8000.; /*phase increment left sine */  
    delta_right= 2.0*PI*freq_right/8000.; /* phase increment right sine */  
  
    for (;;)   
    {  
        x_left = scale*sin(angle_left);  
        x_right = scale*sin(angle_right);  
  
        /* Increment phase angles of sine waves */  
        angle_left += delta_left;  
        angle_right += delta_right;  
  
        /* Reduce angles modulo 2 pi so no overflow */  
        if (angle_left > 2.0*PI) angle_left -= 2.0*PI;  
        if (angle_right > 2.0*PI) angle_right -= 2.0*PI;  
  
        WriteSample( x_left, x_right );  
    }  
}
```