```c
#ifndef HARDWARE_H
#define HARDWARE_H

#include "mbed.h"
#include "pinout.h"

// seven segment display anodes
// when in a int8_t, they are 0b-GFEDCBA
extern BusOut        g_seven_seg;

// display cathodes
extern PwmOut        g_dsl;
extern PwmOut        g_dsr;

// hc-sr04 range finder
extern DigitalOut    g_trg;
extern InterruptIn   g_ech;

// middle switch
extern InterruptIn   g_swm;

// LEDS
extern DigitalOut    g_ldl;

// LDR
extern AnalogIn      g_lit;

// hardware initialization
void hw_init(void);

#endif  // HARDWARE_H
```