

```

// include the library code:
#include <LiquidCrystal.h>
#include "OneMsTaskTimer.h"

//initialize buzzer
const int buzzer = P5_2;

// initialize the library with the numbers of the interface pins
LiquidCrystal lcd(P6_7, P2_3, P2_6, P2_4, P5_6, P6_6);

enum PlayerActionsStates {PlayActionInit, GameStart, WaitingForAction, MoveForward,
MoveBack, Jump};
PlayerActionsStates playerActionState;

enum ScreenStates {screenInit, DrawScreen, GameOver, Restart};
ScreenStates screenState;

//struct for heroPos and obstacle
typedef struct xy_struct{
    int x;
    int y;
} XY;

int obstaclePosition = 16;
XY heroPos;

void setupArcadeGame() {
    Serial.begin(9600);

    // set up the LCD's number of columns and rows:
    lcd.begin(16, 2);
    //title screen and countdown for initial game start
    delay(500);
    lcd.setCursor(0, 0);
    lcd.print("  Hero Runner  ");
    lcd.setCursor(0, 1);
    lcd.print("          ");
    delay(1000);
    lcd.setCursor(0, 0);
    lcd.print("    3    ");
    lcd.setCursor(0, 1);
    lcd.print("          ");
    tone(buzzer, 2000, 100);
    delay(1000);

```

```
lcd.setCursor(0, 0);  
lcd.print("    2    ");  
lcd.setCursor(0, 1);  
lcd.print("        ");  
tone(buzzer, 1500, 100);  
delay(1000);  
lcd.setCursor(0, 0);  
lcd.print("    1    ");  
lcd.setCursor(0, 1);  
lcd.print("        ");  
tone(buzzer, 1000, 100);  
delay(1000);  
clearScreen();  
  
}
```

```
void loopArcadeGame() {  
  delay(10);  
}
```