

```
#include <LiquidCrystal_PCF8574.h>
```

```
#include <Servo.h>
```

```
LiquidCrystal_PCF8574 lcd(0x27);
```

```
//LiquidCrystal_PCF8574 lcd(0x3F);
```

```
int pin_coin_10 = 10;  //กำหนดขาเซนเซอร์นับเหรียญ
```

```
int state_coin_10 = 0;
```

```
boolean check_coin_10 = false;
```

```
int count_coin_10 = 0;
```

```
int buttonsw_1 = 1;
```

```
boolean chk_sw1 = true;
```

```
int pin_sw1 = 2;
```

```
int buttonsw_2 = 1;
```

```
boolean chk_sw2 = true;
```

```
int pin_sw2 = 3;
```

```
int buttonsw_ok = 1;
```

```
boolean chk_sw3 = true;
```

```
int pin_swok = 4;
```

```
int buttonsw_cancel = 1;
```

```
boolean chk_sw4 = true;
```

```
int pin_swcancel = 5;
```

```
boolean menu1_select = false;
```

```
boolean menu2_select = false;
```

```
Servo myservo1;
```

```
void setup() {
```

```
  Serial.begin(9600);
```

```
  lcd.begin(16, 2);          //เปิดใช้งาน lcd
```

```
  lcd.setBacklight(255);     //เปิดไฟ backlight
```

```
  lcd.setCursor(0,0);
```

```
  lcd.print("0123456789101112");
```

```
  lcd.setCursor(4,1);
```

```
  lcd.print("My lcd..!");
```

```
  pinMode(pin_coin_10, INPUT);
```

```
  pinMode(pin_sw1, INPUT_PULLUP);
```

```
  pinMode(pin_sw2, INPUT_PULLUP);
```

```
  pinMode(pin_swok, INPUT_PULLUP);
```

```
  pinMode(pin_swcancel, INPUT_PULLUP);
```

```
  myservo1.attach(6);
```

```
  myservo1.write(90);
```

```
}
```

```
void loop() {
```

```
  if(count_coin_10 == 0){
```

```
    lcd.clear();
```

```
    lcd.setCursor(0,0);
```

```
    lcd.print("Insert coin");
```

```
    lcd.setCursor(0,1);
```

```
    lcd.print("Get coin 10B");
```

```

    sensor_coin();
}else if(count_coin_10 == 1){
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Insert coin");
    lcd.setCursor(0,1);
    lcd.print("coin balance 1");
    sensor_coin();
}else{
    select_menu();
    //lcd.clear();
    //lcd.setCursor(0,0);
    //lcd.print("select menu");
}
delay(50);
}

void sensor_coin(){
    state_coin_10 = digitalRead(pin_coin_10);

    if(check_coin_10 == false && state_coin_10 == 1){
        count_coin_10 += 1;
        check_coin_10 = true;
    }else{
        if (state_coin_10 == 0){
            check_coin_10 = false;
        }
    }
}

void select_menu(){
    buttonsw_1 = digitalRead(pin_sw1);

```

```

buttonsw_2 = digitalRead(pin_sw2);
buttonsw_ok = digitalRead(pin_swok);
buttonsw_cancel = digitalRead(pin_swcancel);
Serial.print(buttonsw_1);
Serial.print(buttonsw_2);
Serial.print(buttonsw_ok);
Serial.println(buttonsw_cancel);
if(menu1_select == true || menu2_select == true){

}else{
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Select menu");
    lcd.setCursor(0,1);
    lcd.print("1.pepsi 2.coke");
}

if(buttonsw_1 == 0 && count_coin_10 >= 2){
    menu1_select = true;
    menu2_select = false;
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("You Choose");
    lcd.setCursor(3,1);
    lcd.print("1.pepsi");
    delay(2000);
}

if(buttonsw_2 == 0 && count_coin_10 >= 2){
    menu1_select = false;
    menu2_select = true;
    lcd.clear();
    lcd.setCursor(0,0);

```

```

    lcd.print("You Choose");

    lcd.setCursor(3,1);

    lcd.print("2.coke");

    delay(2000);
}

if(buttonsw_ok == 0 && count_coin_10 >= 2){

    if (menu1_select == true){

        lcd.clear();

        lcd.setCursor(0,0);

        lcd.print("Confirm pepsi");

        myservo1.write(0);

        delay(1000);

        myservo1.write(90);

        delay(1000);

        count_coin_10 = 0;

        menu1_select = false;

        menu2_select = false;

        delay(2000);

        lcd.clear();

    }

    if (menu2_select == true){

        lcd.clear();

        lcd.setCursor(0,0);

        lcd.print("Confirm coke");

        count_coin_10 = 0;

        menu1_select = false;

        menu2_select = false;

        delay(2000);

        lcd.clear();

    }
}

```

```
}  
if(buttonsw_cancel == 0){  
    count_coin_10 = 0;  
    menu1_select = false;  
    menu2_select = false;  
    lcd.clear();  
}  
}
```