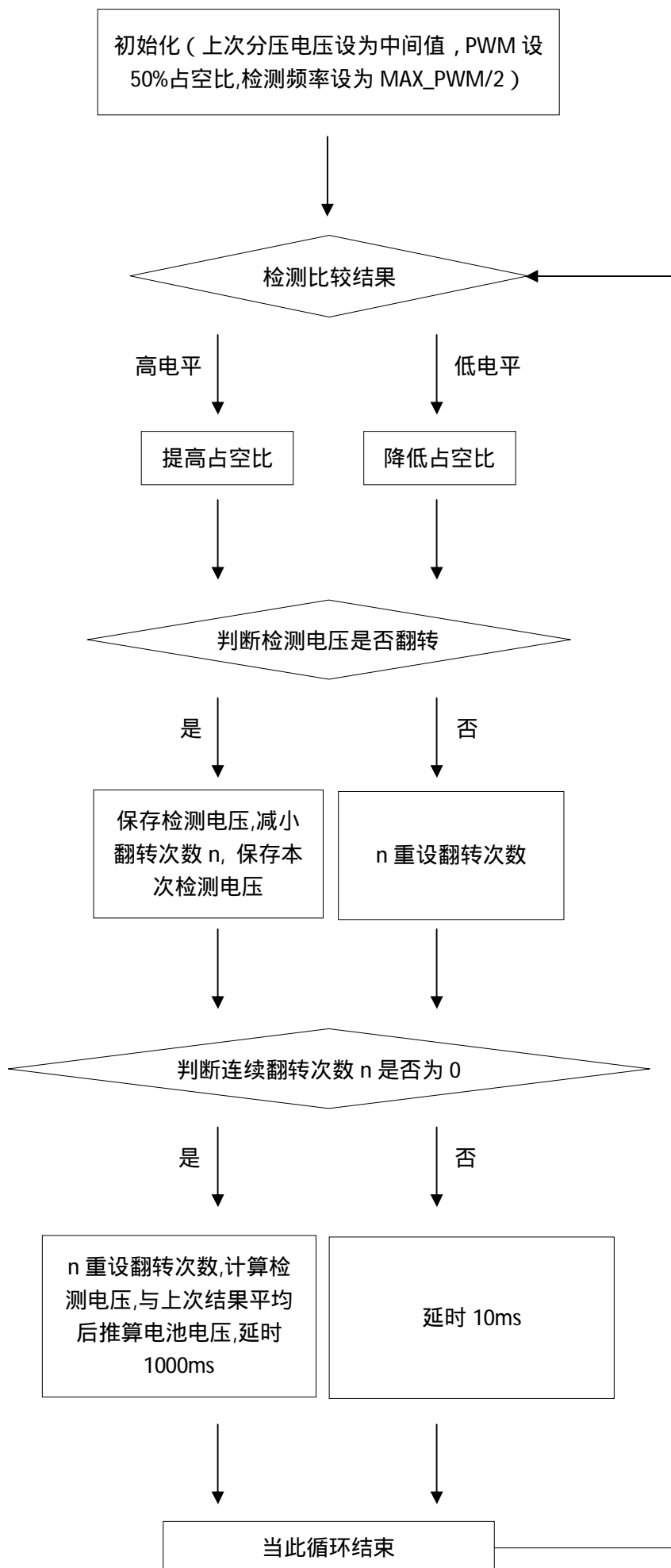


Code 说明

流程图:



本 code 采用 task 方式来实现，请根据实际情况自行更改方式。

首先保证检测口（gpio）设置为输入模式(本 code 因为接在 gpio 按键上，所以不需设置)。

以下是参照代码做简要的使用介绍（红色字体部分）：

```
#define TASK_STK_SIZE          1024          /* Size of each task's stacks (# of WORDs)          */
OS_STK TaskStartStkMyTask[TASK_STK_SIZE];
unsigned short my_task_id = 66;

#define MAX_PWM                260
#define RES_COEFF              ((float)3/5)
#define VOLTAGE_DROP           0
#define TURN_NUM               4
#define V_CHK_COND             (*(volatile unsigned *)0x12000a8 & (1<<5))

void MyTask(void *arg)
{
    unsigned char n = TURN_NUM;
    unsigned char last_drct = 1;
    float v_val;
    int high_val = MAX_PWM/2;
    int low_val = MAX_PWM/2;
    float last_val = (3.3*((float)high_val/MAX_PWM));

    set_lcd_pwm0(low_val, high_val);
    AVTimeDly(10);
    printf("start checking voltage...\n");

    while(1)
    {
        if(V_CHK_COND)
        {
            high_val = (high_val+1)>MAX_PWM?MAX_PWM:(high_val+1);
            low_val = (low_val-1)>0?(low_val-1):0;
        }
        else
        {
            high_val = (high_val-1)>0?(high_val-1):0;
            low_val = (low_val+1)>MAX_PWM?MAX_PWM:(low_val+1);
        }
        set_lcd_pwm0(low_val, high_val);

        if(last_drct == !V_CHK_COND)
        {
            n = TURN_NUM;
        }
        else
        {
            last_drct = !V_CHK_COND;
        }
    }
}
```

```

        --n;
        last_val = (3.3*((float)high_val/MAX_PWM));
    }

    if(!n)
    {
        n = TURN_NUM;
        v_val = (3.3*((float)high_val/MAX_PWM));
        v_val = (((v_val + last_val) / 2) / (RES_COEFF)) + VOLTAGE_DROP;
        printf("voltage is %.3fV\n",v_val);
        AVTimeDly(1000);
    }
    else
        AVTimeDly(10);
}
}

```

1, **MAX_PWM**。

时钟源/PWM 频率。时钟源若是系统频率建议 600k,时钟源若是晶振建议 200k (若设置 600k,会使基值较小, 每阶幅度较大, 从而造成精度降低)。

2, **RES_COEFF**

电阻系数, 例: $R_{12}/(R_9+R_{12})$ 。

3, **VOLTAGE_DROP**

压降。指电池电源到测试点之间的压降。

4, **TURN_NUM**

翻转次数。获取电压值条件。须为大于 0 的整数。

5, **V_CHK_COND**

需要增加占空比的判断条件

6, **set_lcd_pwm0(low_val, high_val);**

设置 PWM, 请根据实际应用进行修改。