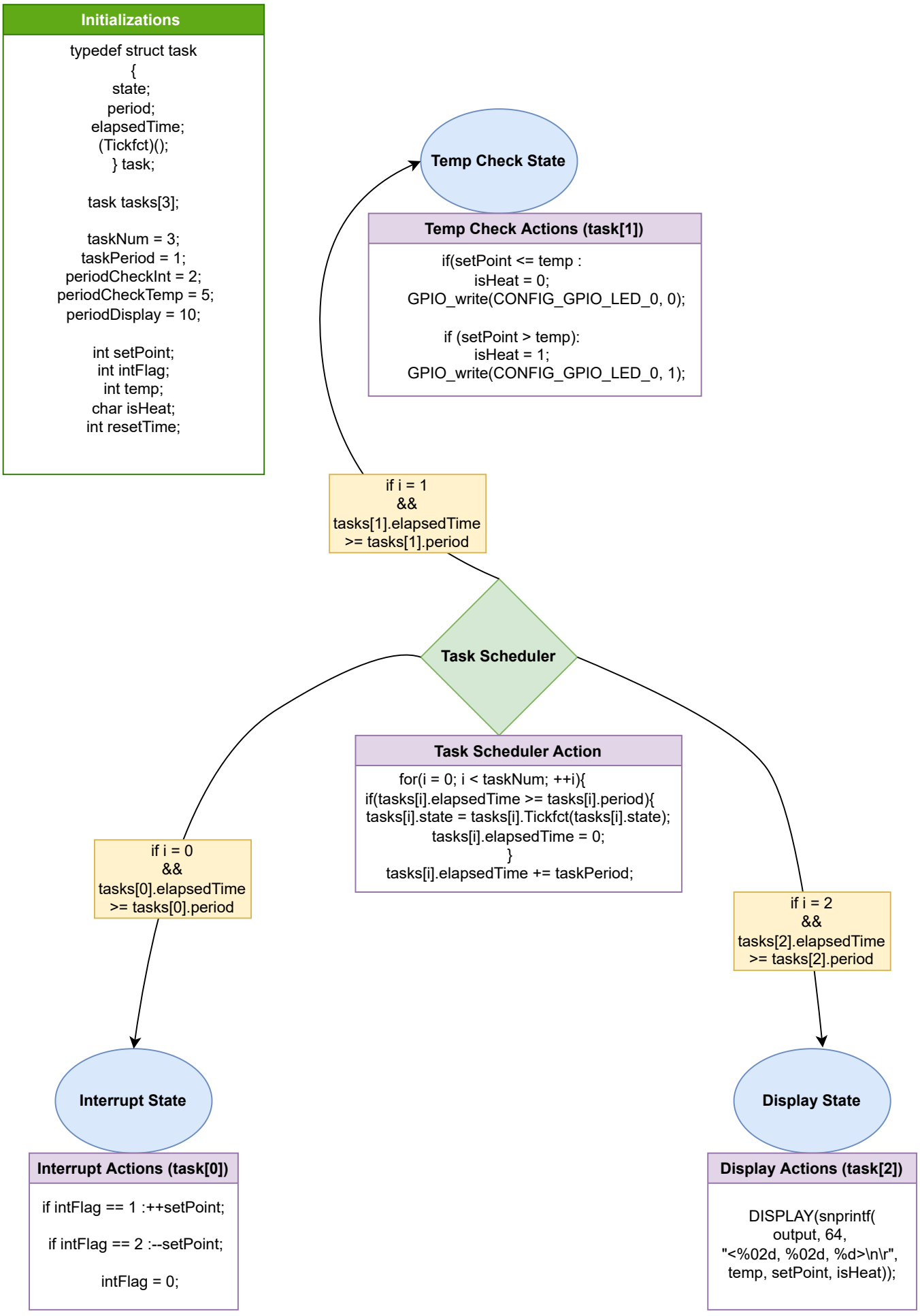
Initializations
typedef struct task
{
state;
period;
elapsedTime;
(Tickfct)();
} task;
task tasks[3];
taskNum = 3;
taskPeriod = 1;
periodCheckInt = 2;
periodCheckTemp = 5;
periodDisplay = 10;
int setPoint;
int intFlag;
int temp;
char isHeat;
int resetTime;
Temp Check State
Temp Check Actions (task[1])
if(setPoint <= temp :
isHeat = 0;
GPIO_write(CONFIG_GPIO_LED_0, 0);
if (setPoint > temp):
isHeat = 1;
GPIO_write(CONFIG_GPIO_LED_0, 1);
if i = 1
&&
tasks[1].elapsedTime
>= tasks[1].period
Task Scheduler
Task Scheduler Action
for(i = 0; i < taskNum; ++i){
if(tasks[i].elapsedTime >= tasks[i].period){
tasks[i].state = tasks[i].Tickfct(tasks[i].state);
tasks[i].elapsedTime = 0;
}
tasks[i].elapsedTime += taskPeriod;
if i = 0
&&
tasks[0].elapsedTime
>= tasks[0].period
if i = 2
&&
tasks[2].elapsedTime
>= tasks[2].period
Interrupt State
Display State
Interrupt Actions (task[0])
if intFlag == 1 :++setPoint;
if intFlag == 2 :--setPoint;
intFlag = 0;
Display Actions (task[2])
DISPLAY(snprintf(
output, 64,
"<%02d, %02d, %d>\n\r",
temp, setPoint, isHeat));