Modules diagram

LED
+LED_State : LED_STATE_t
+LED_Init(void) : void +LED_Update(void) : void

HEATER
+HEATER_State : HEATER _STATE_t
+ HEATER _Init(void) : void + HEATER _Update(void) : void

FAN
+FAN_State : FAN _STATE_t
+ FAN _Init(void) : void + FAN _Update(void) : void

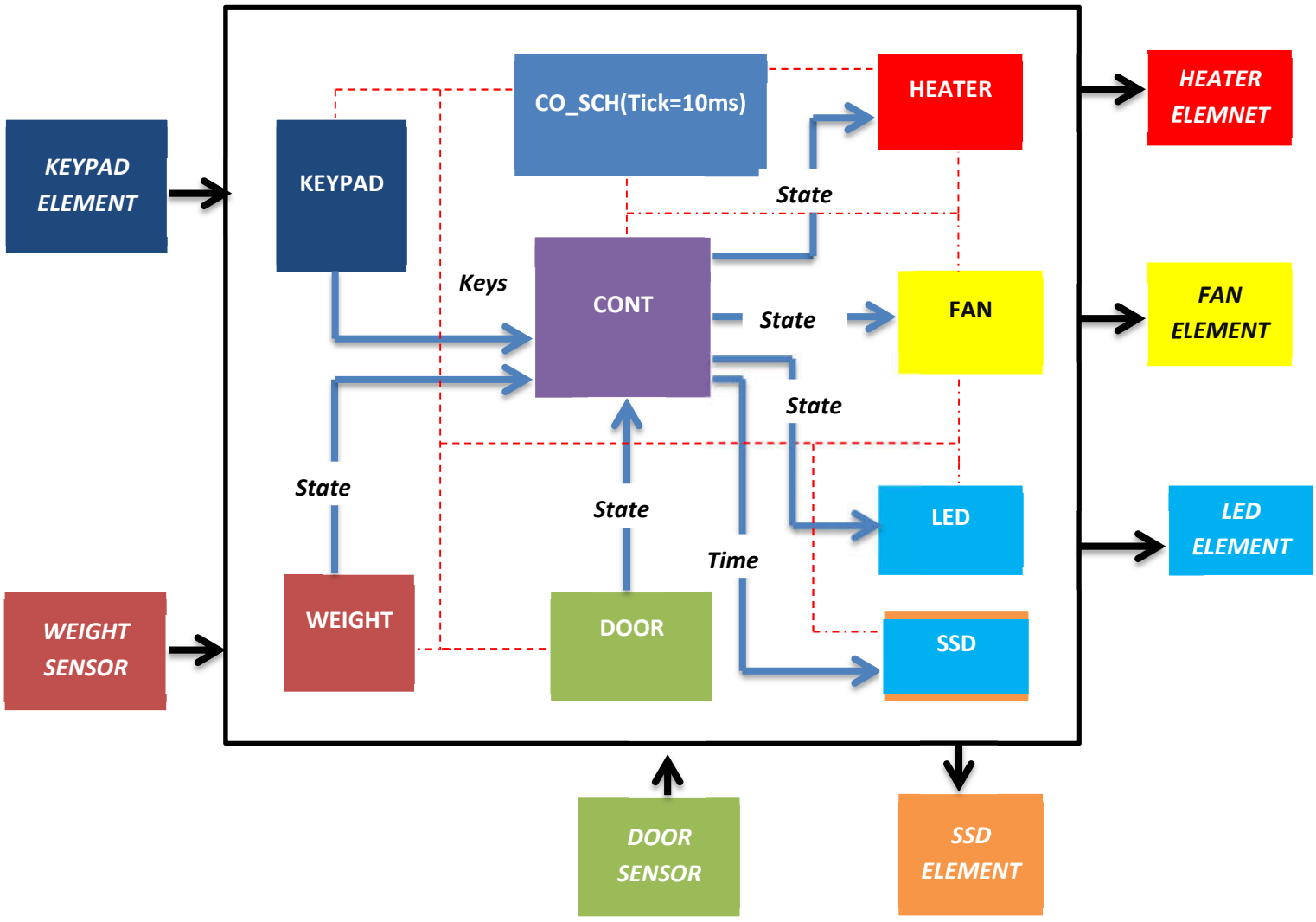
SSD
+Hours_Tens : u8_t +Hours_Units : u8_t +Minutes_Tens : u8_t +Minutes_Units : u8_t -SSD_Id : SSD_t
+ SSD _Init(void) : void + SSD _Update(void) : void -SSD_On(SSD_ID : const SSD_t) : void -SSD_Off(SSD_ID : const SSD_t) : void -SSD_Refresh(void) : void

DOOR
+DOOR_State : DOOR_STATE_t
+DOOR_Init(void) : void +DOOR_Update(void) : void

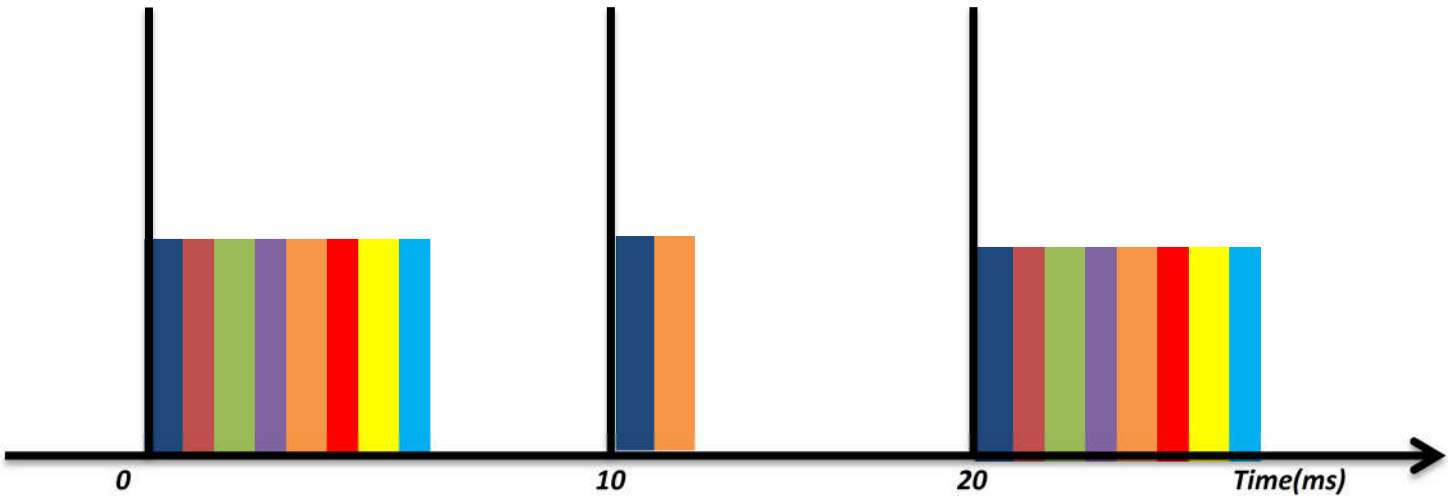
WEIGHT
+ WEIGHT_State : WEIGHT_STATE_t
+ WEIGHT_Init(void) : void + WEIGHT _Update(void) : void

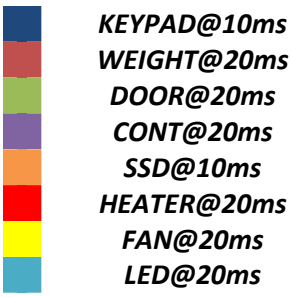
KEYPAD
+ Key[MAX_NO_OF_KEYS] : KEY_t
+ KEYPAD _Init(void) : void + KEYPAD _Update(void) : void - KEYPAD_Update_Key(KEY_ID : const KEY_ID_t) : void - KEYPAD_Seclect_Key(ROW : const ROW_t, COL : const COL_t, KEY_ID : const KEY_ID_t) : void

CONT
-CONT_Mode: CONT_MODE_t
+ CONT_Init(void) : void + CONT _Update(void) : void



Time modeling





Task	Action	BCET (ms)	WCET (ms)	Periode Of Action (ms)	Periode Of Task (ms)
KEYPAD _Update	Update_Buttons	0.477	0.492	10	10
WEIGHT _Update	Update_Weight_State	0.093	0.107	20	20
DOOR _Update	Update_Door_State	0.090	0.107	20	20
CONT _Update	Control the States of the modules	0.031	0.096	20	20
SSD _Update	Update_Time	0.767	0.767	10	10
HEATER _Update	Update_Heater_State	0.108	0.108	20	20
FAN _Update	Update_Fan_State	0.103	0.103	20	20
LED _Update	Update_Led_State	0.099	0.099	20	20
TICK(ms)					10
Major Cycle(ms)					20

Minor Cycle = TICK = GCD(10, 20, 20, 20, 10, 20, 20, 20) = 10 ms
Major Cycle = LCM(10, 20, 20, 20, 10, 20, 20, 20) = = 20 ms
Major Cycle = 20 / 10 = 2 Minor Cycle
CPU Load = ∑WCET / Major Cycle = 1.879/20 = 0.09395
*CPU Load % = 0.09395 * 100 = 9.395 %*