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LEDs lighting sequence

Description: start Light sequence system when pushing button Flowchart: Led OFF NO Button Button NO pressed pressed?. Button ?. pressed? **E**S Led4 ON LED3 OFF **y**es Led0 ON NO Ν Button Button pressed? pressed?. Button ŊΟ pressed?. YES YES LED 5 ON LED4 OFF yes (NO Led1 ON NO Button pressed?. Button NO pressed Button ?. pressed?. YES YES YES Led1 OFF NO LED2 ON LEDs OFF Button pressed? NO Button end pressed? YES S Led2 OFF

Led 3 ON

Layered architecture

Application
ECUAL(led +button)
MCAL(timer+DIO)
Microcontroller

APIs

```
;void ADC_Init(void)
```

;Uint16t ADC_Read(void)

;void BTN0_Init(void)

;Uint8t BTN0_GetValue(void)

/*Functions for PINS*/

/*void DIO_SetPin_Direction(Uint8t port, Uint8t pin, Uint8t direction);/*Define Direction for pin(Ip/Op)

/*void DIO_SetPin_Value(Uint8t port, Uint8t pin, Uint8t value);/*Output Mode

/*void DIO_TogglePin(Uint8t port, Uint8t pin);/*Toggle Output Mode

/*void DIO_ReadPin_Value(Uint8t port, Uint8t pin, Uint8t* value);/*Input Mode

/*Functions for PORTS*/

/*void DIO_SetPort_Direction(Uint8t port, Uint8t direction);/*Define Direction for Port(Ip/Op)

/*void DIO_SetPort_Value(Uint8t port, Uint8t value);/*Output Mode

/*void DIO_TogglePort(Uint8t port);/*Toggle Output Mode

/*void DIO_ReadPort_Value(Uint8t port, Uint8t* value);/*Input Mode

/*Activate Pull up Resistor*/

;void DIO_SetPULLUP(Uint8t port, Uint8t pin)

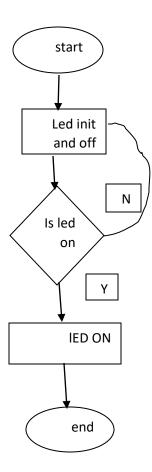
;void LED0_Init(void)

;void LED0_ON(void)

;void LED0_OFF(void)

;void LED0_Toggle(void)

LED FLOW chart



Button flowchart

