Init system

Global variables:
    eightseconds_count
    uart_listening

Power down...

Timer 2 wakeup

What happens if timer 2 interrupt
happens elsewhere?

Logging and
Interval reached?

Yes

No

Do Log

PC3 Low?

Yes

No

UART Exchange

Actually the logger doesn't begin logging
after power-up. It waits for logging setup
via UART before doing anything. Inserting the
battery doesn't start logging.

Interrupt routines

Timer 2 ISR
(8 seconds)

eightseconds_count++

UART RX

Add UDR0 to command_buffer
(with safety checks)
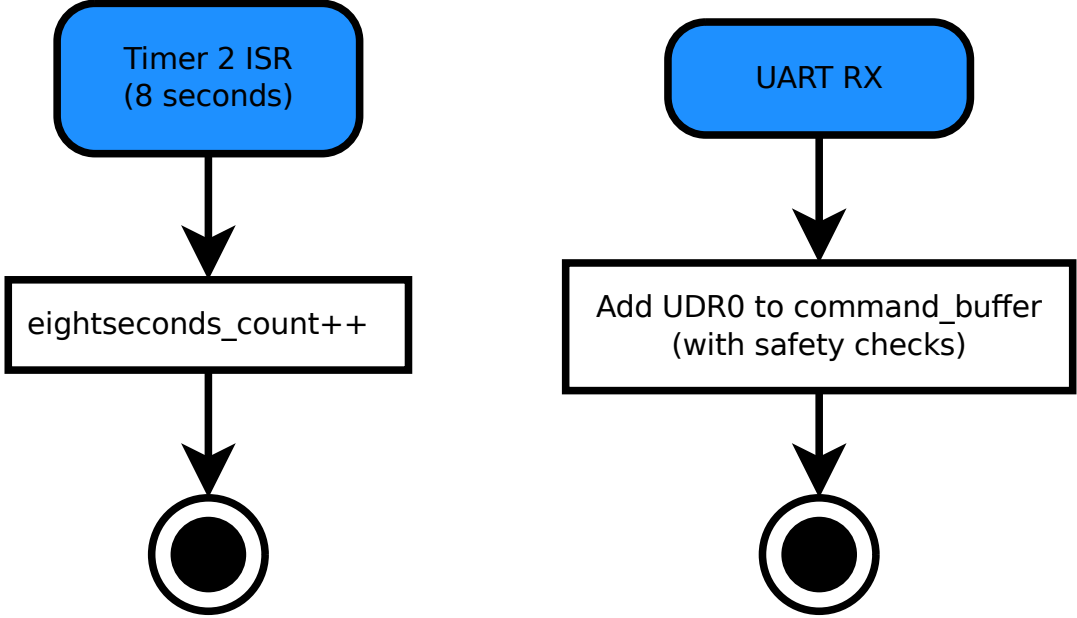
Functions

Do Log

Enable TWI
Measure temperature
Disable TWI

Enable SPI
Save temperature
Disable SPI

eightseconds_count = 0

Init system

Disable all modules
Set all pins to input
Enable all pull-ups
Initialize LED
Start Timer 2 (RTC)
Put temp sensor to sleep
Put memory to sleep

UART Exchange

Clear command buffer
Enable uart
Enable uart interrupt
Send "listening" code over uart
_delay_ms(1000) (reduce to 10)
Disable uart
Disable uart interrupt
Analyze command
Respond

D: Dump Data
B: Begin logging
E: End logging
S: Get serial n.
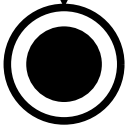
If fresh logging config is
received, don't forget to
restart Timer/Counter 2