User Interface:

Input recording schedule:

* Recording interval
* Stand-by interval

Input sample rate

Input delay of start

Calculate the power consumption of whole system

(Possibly, estimate the operation time of the device )

If power consumption is within limit, confirm the set up configuration

Pass the set up configuration to system memory

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Operation:

Estimate recording duration for each SD card based on set up configuration

Calculate the number of “packet” can be store to the each SD card

SD\_limit = round down (number of “packets”)

Do

Keep store to SD while number of stored “packets” <=SD\_limit

Call interrupt procedure

Call MUX switch procedure:

While number of SD<= max

Turn off the power

Interrupt procedure:

RTC -> input\_down : system goes sleep

RTC -> input\_up: system wakes up

MUX switch procedure:

If number of packets reaches SD\_limit, turn off the power

MUX switches to next SD card

Number of SD=number SD+1

If no power down interrupt from “RTC”, turn on power

Else, wait interrupt (FLAG), turn on if FLAG=TRUE