Easysleep - night-time difficulty prevention device with logging and wireless communication

Device 1 (K64F with FreeRTOS)

Moisture detection sensor → ADC

FreeRTOS

RTC

SD card / Flash → << physical data transfer >>

LCD screen

UART/BT/Wi-Fi/Ethernet? (nRF24L01+ or JY-MCU v1.06) → << wireless data transfer >>

Buttons
Keypad → GPIO

Power management

External Applications (one or both)

Qt used for graphing data obtained from the SD card for physical data transfer

Possible Android Application for wireless data transfer

<< two-way communication >>

Device 2 - bracelet (K64F)

UART/BT/Wi-Fi/Ethernet?

Power management

Heart rate monitor → GPIO

Actuator   Relay