Anelok Hardware Design Evolution

Past (2013)
Past (2014)
Present/Future

CPU

Larger memories
Faster
RNG
Dual USB (HS)
Higher cost
BGA/LQFP

Compartimentalization
More memory
All QFN–32
Hardware complexity
Size
Cost

Larger memories
Faster
Higher cost
BGA/LQFP

STM32F2
KL16+KL26
Kinetis K2x

RF–Kill

Radio

No crystal sharing
No TRNG

Ground VDD

Design update

Kinetis KL26

nRF51822

BTLE (vendor)
ARM
Thermal RNG
Lower cost
48–QFN

Simplicity
Too simple ?

None

TI CC2543

BTLE (tweak)
8051

Kinetis KL25

May not work

Throttle

AT86RF232

IEEE 802.15.4

Memcard

User files   System   PWs

CR2032   AAA

Battery size

Use case
Needs USB HS

Capacity
Ubiquity
Leakage
Size

Design
Haptics
Sourcing
Cost
Size

Wheel

Primary

Availability

Cost
Flexibility
Sourcing
Size
Durability
Haptics

Slider

Micro AB

Rechargeable

Greenness
Zeitgeist
Shipping
Wear
Circuit

Size
Cable

Battery type

User input

USB A
Micro B

No cable
Size

Robustness
Non–standard (host)

USB device

Looking good for "alpha" design
Want this, evaluating

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