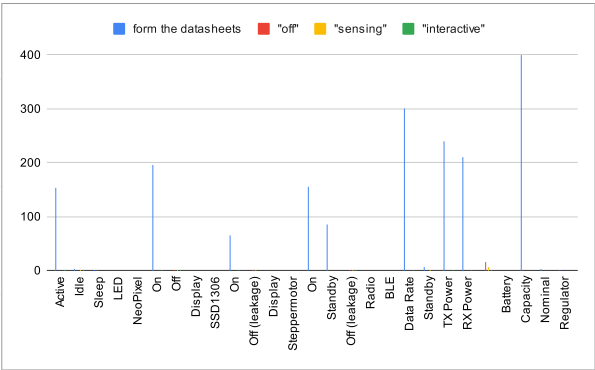


System Parameters (defined by hardware)		Profiles (usage of each component mode - defined by software and usage)		
form the datasheets		"off"	"sensing"	"interactive"
Processor				
XiaoESP32C3				
Active	154 mW	0%	5%	70%
Idle	3 mW	0%	90%	25%
Sleep	1 mW	100%	5%	5%
LED				
NeoPixel				
On	195 mW	0%	5%	20%
Off	0 mW	100%	95%	80%
Display				
SSD1306				
On	66 mW	0%	10%	100%
Off (leakage)	0 mW	100%	90%	0%
Display				
Steppermotor				
On	155 mW	0%	0%	0%
Standby	86 mW	0%	0%	0%
Off (leakage)	0 mW	100%	100%	100%
Radio				
BLE				
Data Rate	300 bps	0%	0%	100%
Standby Power	7 mW	0%	100%	0%
TX Power	240 mW	0%	0%	60%
RX Power	210 mW	0%	0%	40%
Battery		16	7	1 hours/day typical usage
Capacity		400 mAh		
Nominal Voltage		4 V		
Regulator Efficiency		99%		

REFLECTIONS : WHAT DID YOU LEARN FROM ANALYZING YOUR POWER. TALK ABOUT SOME POTENTIAL TRADEOFFS.

From this assignment, I learn that the active mode uses way more power than sleep mode. Also, the display and wireless connection will take a huge part of the power and is really easy to drain the battery. The standby mode will trade off the ability of response time to battery usage. And with BLT device the device will trade of the usage to connection with my other type of device.



Total power in profile (mw)		Maximum Time
"off"	0.89 mW	1646.3 hours
"sensing"	32.9885 mW	44.4 hours
"interactive"	741.65325 mW	2.0 hours

Effective Battery Capacity
1465.2 mW*h

Days of Use 1.48 days
Hours of Use 35.63 hours

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