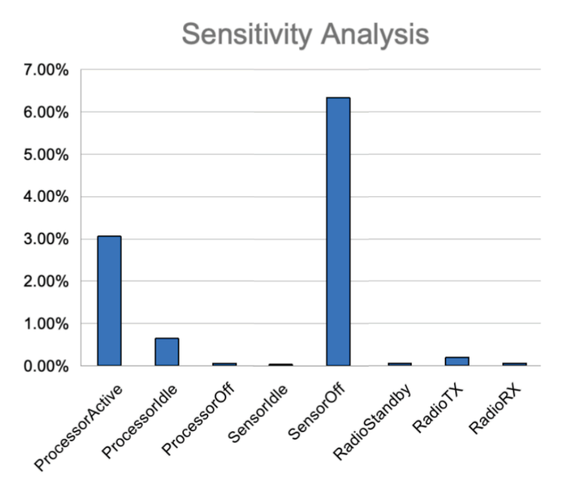
System Parameters (defined by hardware)			Profiles (usage of each component mode - defined by software and usage)			
	form the datasheets					
			"off"	"sensing"	"interactive"	
Processor (ESP32-S3	https://github.com/Michelleyukli/514-Final-Project/blob/main/esp32-s3_datasheet_en%20(1).pdf					
Active	1105.5	mW	0%	20%	25%	
Idle	69	mW	0%	80%	75%	
Sleep	1	mW	100%	0%	0%	
Sensor	https://github.com/Michelleyukli/514-Final-Project/blob/main/MPU-6000-Datasheet1%20(1).pdf					
On	13.32	mW	0%	50%	50%	
Idle	0.0185	mW	0%	50%	50%	
Off	1	mW	100%	0%	0%	
Radio	https://github.com/Michelleyukli/514-Final-Project/blob/main/esp32-s3_datasheet_en%20(1).pdf					
Data Rate	1000000	bps	0%	0%	0%	
Standby Power	5	mW	0%	97%	97%	
TX Power	828	mW	0%	2%	2%	
RX Power	252	mW	0%	1%	1%	
Battery Li-Po battery (	https://github.com/Michelleyukli/514-Final-Project/b		20	2	2	hours/day typical usage
Capacity	748	mAh				
Nominal Voltage	3.7	V				
Regulator Efficiency	90%					



Total power in profile (mw)			Maximum Time	
"off"	101	mW	24.7	hours
"sensing"	307.14	mW	8.1	hours
"interactive"	358.95	mW	6.9	hours

Effective Battery Capacity		
	2490.84	mW*h
Days of Use	**0.74**	**days**
Hours of Use	**17.83**	**hours**