

디스크 정보 확인

```
lsblk
```

smartctl 설치

```
sudo apt install smartmontools
```

smartctl 사용

```
sudo smartctl -A /dev/WAl_디바이스 > before_rocksdb.txt
./db_bench --benchmarks=fillrandom --wal_dir= --db=
sudo smartctl -A /dev/WAl_디바이스 > after_rocksdb.txt
```

smartctl 예제

- db_bench 실행 전

- | | ID# | ATTRIBUTE_NAME | FLAG | VALUE | WORST | THRESH | TYPE |
|---------|--------|---------------------|----------------|-------|-------|--------|------|
| UPDATED | | WHEN_FAILED | RAW_VALUE | | | | |
| *** | 177 | Wear_Leveling_Count | 0x0013 | 099 | 099 | 000 | Pre- |
| fail | Always | - | 5**** | | | | |
| *** | 241 | Total_LBAs_Written | 0x0032 | 099 | 099 | 000 | |
| Old_age | Always | - | 15350693272*** | | | | |

- db_bench 실행 후

- | | | | | | | | |
|---------|--------|---------------------|-----------------|-----|-----|-----|------|
| *** | 177 | Wear_Leveling_Count | 0x0013 | 099 | 099 | 000 | Pre- |
| fail | Always | - | 5 *** | | | | |
| *** | 241 | Total_LBAs_Written | 0x0032 | 099 | 099 | 000 | |
| Old_age | Always | - | 15350796120 *** | | | | |

RocksDB 실행 중 102,848 LBA가 추가로 쓰임

- $15350796120 - 15350693272 = 102848$ (LBA : 512 bytes)
- $102848 * 512 = 52,659,456$ bytes
- $52,659,456 / 1,000,000,000 \approx 0.0527$ GB (약 52.7 MB)
- $52.7 \text{ MB} / 3 \text{ MB} \approx 17.57$ P/E 사이클 (TLC NAND 기준 블록 크기: 3MB)