

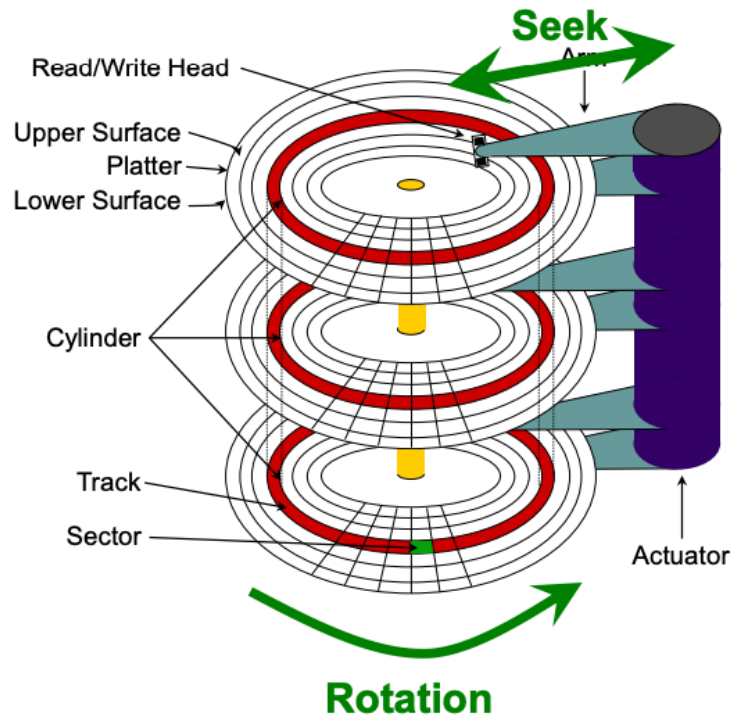
# CSC369 Week 9 Notes

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May 29, 2020

## 1 Disk I/O

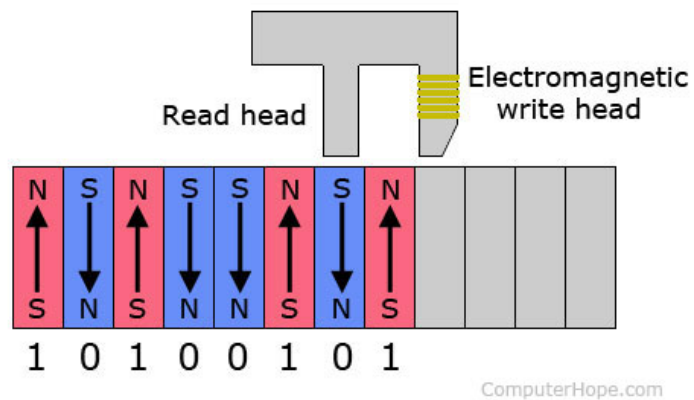
- File system implementation
  - Files and directories live on **secondary storage**
    - \* Anything outside of “Primary memory”
    - \* Is persistent (or non-volatile): Data survives loss of power
- Disk components



- **Actuator:** is an electronic device controlled by a motor that moves the hard drive head arm. <sup>[1]</sup>

- **Read/Write Heads:** are the small parts of a hard drive which move above the disk platter and transform the platter's magnetic field into electric current <sup>[1]</sup>

### Hard drive read/write head



- **Upper Surface:**
- **Lower Surface:**
- **Platter:**
- **Cylinder:**
- **Track:**
- **Sector:**

### References:

- 1) Computer Hope: Actuator, link
- 2) Andrew. (2018, January 16). *Hard links and Symbolic links — A comparison*. Medium. link

- OS ↔ disk interaction
- Logical Block Addressing
- Disk Scheduling
- File System Implementation
- Original Unix File System
- FFS
- Cylinder Groups

- Log Structured File System (LSF)
- NTFS (Windows)
- MFT Record