

# Disks

# Hard Disk Drive (HDD)

**Platter** (aluminum coated with a thin magnetic layer)

- A circular hard surface
- Data is stored persistently by inducing magnetic changes to it
- Each platter has 2 sides, each of which is called a surface

**Spindle**

- Spindle is connected to a motor that spins the platters around
- The rate of rotations is measured in RPM (Rotations Per Minute)  
Typical modern values : 7,200 RPM to 15,000 RPM

**Track**

- Concentric circles of sectors
- Data is encoded on each surface in a track
- A single surface contains many thousands and thousands of tracks

**Cylinder**

- A stack of tracks of fixed radius
- Heads record and sense data along cylinders
- Generally only one head active at a time

