

Secondary Storage Devices

	<i>Description</i>	<i>Uses</i>	<i>Capacity</i>	<i>Pros</i>	<i>Cons</i>
Hard Disk	A series of metallic disks, divided into tracks which can store data magnetically. A read head float above the surface to read/write data.	<ul style="list-style-type: none"> • Secondary storage on PC • Server storage 	20 GB - 500 GB	<ul style="list-style-type: none"> • Fast read/write time • Random access • Low cost per MB 	<ul style="list-style-type: none"> • Susceptible to physical shocks
Magnetic Tape	Stores data magnetically on a plastic based tape. A read head rubs along the tape to read/write data.	<ul style="list-style-type: none"> • Software distribution • Data back-up 	up to many TB	<ul style="list-style-type: none"> • High capacity • Low cost per MB 	<ul style="list-style-type: none"> • Sequential access - can be very slow
Magnetic Stripe	Stores <i>read only</i> data magnetically in three tracks. A read head rubs along the stripe to read data.	<ul style="list-style-type: none"> • Debit/credit cards 	Around 1 kB	<ul style="list-style-type: none"> • Simple • Low cost 	<ul style="list-style-type: none"> • Very low capacity
USB flash drive	Solid state storage, meaning there are no moving parts. Plug-and-play with USB in computer.	<ul style="list-style-type: none"> • Data back-up • Transferring files 	1-256 GB	<ul style="list-style-type: none"> • Very small and stable • Fast seek time 	<ul style="list-style-type: none"> • High cost per MB
Memory Cards	Solid state storage. Flat, printed circuit board with terminal for connection.	<ul style="list-style-type: none"> • Camera storage • Mobile Phone memory 	1-256 GB	<ul style="list-style-type: none"> • Very small and stable • Fast seek time 	<ul style="list-style-type: none"> • High cost per MB
CD-ROM	Metal disc embedded into a plastic protective housing. Read by red laser. "Write Once, Read Many" and each disk is mastered.	<ul style="list-style-type: none"> • Software distribution 	650 - 900 MB	<ul style="list-style-type: none"> • Cheap • Data cannot be overwritten 	<ul style="list-style-type: none"> • Slow seek time • Degrades over time
DVD-ROM	Metal disc embedded into a plastic protective housing. Read by red laser. "Write Once, Read Many" and each disk is mastered.	<ul style="list-style-type: none"> • Film distribution 	4.5 - 9 GB	<ul style="list-style-type: none"> • Cheap • Data cannot be overwritten 	<ul style="list-style-type: none"> • Slow seek time

	<i>Description</i>	<i>Uses</i>	<i>Capacity</i>	<i>Pros</i>	<i>Cons</i>
CD-R, CD-RW	Metal disc embedded into a plastic housing. CD-Rs have layer of dye on top, "Write Once, Read Many". CD-RWs have layer of a special 'phase change' metal, "Write Many, Read Many"	<ul style="list-style-type: none"> • Data archiving 	650 - 900 MB	<ul style="list-style-type: none"> • Cheap 	<ul style="list-style-type: none"> • Slow seek time • Degrades over time
Blu-Ray	Metal disc embedded into a plastic housing. Read by blue laser.	<ul style="list-style-type: none"> • HD Film distribution 	25-50 GB	<ul style="list-style-type: none"> • Large storage capacity 	<ul style="list-style-type: none"> • Expensive readers