Microphones

Polar Patterns

- Directionality of sound capture

Omnidirectional

- Picks up sound from all directions

Cardioid

- Heart shape
- Most sensitive at top
- No sound on bottom

Bidirectional

- More sensitive from the sides
- No sound on top and bottom

Hyper cardioid

- More focused at top on V shape
- Some sound from bottom

Super cardioid

- More focused on top
- More sound on bottom compared to hyper cardioid

Types

Dynamic

- Wire connected to diaphragm
- Other end of wire coiled on magnet
- Sturdier
- Less sensitive
- Often used for for live sound
- Sometimes used for studios to mic instruments
- Often used for higher SPLs (sound pressure levels)

    - Putting it in front of something with high SPL will be fine (e.g. putting it in front of a kick drum)

Ribbon Mics

- Super thin piece of metal as diaphragm

Condenser

- Needs power (48 V phantom power)
- More fragile
- More sensitive
- More common in studios as they are more sensitive
- Space between backplate and diaphragm

Boundary Microphone

- Good for surfaces
- Picks up overall sounds well

Phantom Power

- Power usually fed via cable
- Required for condenser mics