**Studio equipment**

**Furniture**
You can buy special studio furniture, but you are probably better off having local carpenters build it. Buy good office chairs. The cheap ones (Wal-Mart) don't last.

**CD Players**
Cheap: Home single play will work, won't last.
Look for: wired remote control, balanced out, countdown timer, easy track selection
Avoid: “5-disk”
Caution: The dual ones may seem convenient, but if one breaks you have none.
Brands: Denon, Tascam, Stanton, Numark
Price: $250

**Turntables**
More important than you think.
Look for: direct drive, magnetic “DJ” cartridge
Avoid: belt drive, ceramic cartridge, audiophile cartridge, USB interface, straight tone arm.
TT Brands: Technics (1200 used !!!), Stanton
Cartridge brands: Shure, Stanton, Audio Technica
Price: $200 - $500

**Turntable Preamp**
Interface from turntable to board
Look for: balanced out
Brands: ART, Rolls, RDL
Price: $50 - $100

**DJ Mixer**
Not really needed but some club DJ's prefer it.
Usually it is just added complexity.

**Cassette desk**
Cassettes are inconvenient no matter what you do.
Don't buy new. Install one at a transfer station.
**Stand-alone recorder**
Really part of remote equipment.
Brands: Zoom
More flexible, easier to record on the computer in the studio
Price: $100

**Computer**
Look for: Linux, big disk, good sound card, second sound card, second network card, higher quality motherboard, Higher quality CD (Plextor), quiet.
Avoid: proprietary software.
Brands to look for:
- Motherboards: MSI, Asus
- CD: Plextor (worth the extra money!)
- Buy the parts, custom build
Price: $500-$1000

**Software**
Look for: Free/open-source.
Avoid: Zero/low cost come-ons that will cost more in the long run.
Names: Rivendell, Audacity, Mplayer, Airtime
Caution: Changing to a different automation system is painful. Choose something you won't outgrow.
Price: $0.

**Sound card**
Look for: Low noise, good filter, good headroom, balanced in/out
Caution: some cheap sound cards have poor filters, very low in and out levels. Likely you will need to pad pro level signals feeding so-called line in.
Price: $100.

**Microphone**
Quality is important for good sound, but enough is enough. You need several of them.
Brands: Shure (SM-58), Electro-Voice, AKG, Audio Technica
Avoid: Cheap Hi-Z mics, connectors other than XLR.
Price target: $100.

**Microphone stands and booms**
You need these! At least 2.
Brands: OC White
Price: $20 - $150, $100 for the studio

**On-air console**

Price range: $100 - $100000
Reasonable price range: $1000-$4000.

Look for: Simple (no eq), switchable monitor with muting, real VU meters, high headroom, balanced inputs, balanced and/or floating outputs, modular, expandable, repairable, Standard connectors, such as RJ45 “Studiohub compatible”, 1/4” TRS, or XLR.

Avoid: unbalanced inputs, RCA connectors, small LED meters, proprietary interface, mixers designed for recording or live performance, surface mount components.

If you need to ask, you are not ready for digital. Go analog.

Brands: Wheatstone/Audioarts, Arrakis, AEQ, Kaatskit

Think of 3 categories:

- **Minimal (6-8 faders, dead end):**
  - Arrakis ARC-8 $800
  - Wheatstone/Audioarts AIR-1 $1800
  - Henry six-mix $1200

- **Medium (12 faders, dead end):**
  - Wheatstone/Audioarts AIR-4 $4000

- **Ideal (12 or more faders, modular):**
  - Wheatstone/Audioarts R55 $5000 - $10000
  - Kaatskit $1000 - $3000 kit, $2000 - $6000 assembled.

**EAS Decoder**

Required, no short cuts.

Brands: Sage, DASDEC, Trilithic

Look for: For LPFM, it is probably best, certainly easiest, to buy a unit that has it all, including the radios, in one box.

Avoid: Old Pre-CAP units, consumer radios that lose settings in a power failure.

Caution: When comparing prices, be sure to compare bottom line price for the whole system, and also compatibility with your other equipment and software. Some brands include radios, some do not.

Price: $2000 - $3000 for the whole package, including 2 or 3 radios.

**FM Monitor Tuner**

A consumer tuner will do.

Brands: Sony, Rolls

Price: $200
Monitor speakers
Look for: rugged
Recommend: Car radio speakers
Avoid: Cheap consumer speakers with poor power handling.
Price target: $100/pair

Monitor amp
Look for: balanced input, hideable volume controls
A good consumer amp will do.
Brands: ART (SLA1), Crown, Rolls
Price target: $200-$300

Headphones
Some are more rugged than others, some sound better than others.
Look for: sturdy cord, replaceable cord, full ear cup.
Don't spend too much money here. They all break. Plan on replacing frequently.
Brands: Tascam, Sennheiser
Price target: $20.

Headphone amp
There are many. Look for the features you need, especially its physical configuration. Also look for balanced input.
Brands: Rolls, ART.
Price range: $25 - $100
Price target: $50.

Distribution Amp
Many to pick from. Not sure why such a price range.
Kaatskit has a bare-board for $75 for use with a Studiohub system.
Rolls has a rack mount unit for $150.
More expensive probably has more outs, but 4 is probably enough.
Look for and question: Type of outputs, floating vs nonfloating. Both have advantages. Type of connections. RJ45/Studiohub, 1/4”TRS, XLR preferred. Most seem to have screw terminals.
Brands: Rolls, ATI, Rane, Audioarts, Kaatskit, Henry, Broadcast Tools.
Price range: $100 - $600.

Telephone hybrid
Look for: digital
Avoid: knobs on the front
You can start with a cheap one and upgrade later. If you do this, go cheap cheap. Better quality comes with going digital. A more expensive analog hybrid is not much better than the cheapest.
Brands: JK, Telos
Price range: $100 analog, $500-$1000 digital

**Impedance matching, isolation**
Sometimes you need some kind of isolation on audio lines, most likely to feed unbalanced inputs from a non-floating balanced source. Example: console out or DA feeding a computer.
Could be a transformer or electronic device.
Don't buy unless you need it. If you think you need it, you may be better off upgrading the box you think needs it to a better one that doesn't.
Brands:
- Transformers: Neutrik ($30), Jensen ($100)
- Electronic: Kaatskit, ATI, Radio Systems, Henry

**Equipment rack**
To securely mount your equipment.
Brands: Middle Atlantic
Price: $100-up, or you can make one.

**On-air light and relay**
Make or buy
Brands: Henry, Broadcast Tools, Radio Systems, Canna-Kit
Price: $0 to $200

**Wiring**
Shielded cat-5 cable is excellent audio cable .. $100 for 1000 foot box.
You need to decide how much to make, how much to buy.
Pre-made brands: Radio Systems (studiohub), Hosa
Cost: Figure $500 by the time you are done.

**Who??**
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