

# **DIY Recording**

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# Outline

- What do I need?
- How do I use it?
- What should I think about?

The background is a dark blue gradient with a complex pattern of thin white lines. These lines form a grid and various geometric shapes, including circles and rectangles, some of which are partially cut off by the edges of the frame. The overall aesthetic is technical and modern.

**WHAT DO I NEED?**

# What don't I need?

- Thousands of dollars worth of equipment
- A sound-proof room
- Great gear does not great music make!

# What do I need?

- A computer
- A microphone
- An interface
- An XLR cable
- A stand
- A pop filter
- Headphones

# What do I need (cont'd)?

- A computer
  - Platform: Mac vs. PC
  - Connectivity: USB, Firewire

# What do I need (cont'd)?

- An interface
  - Requirements
    - Mic preamp(s)
    - Phantom power
  - Platform/Connectivity
  - Important considerations
    - Stability
    - Preamp quality
  - Read reviews!



# What do I need (cont'd)?

- An interface
  - Focusrite Scarlett 2i2 (\$149)
  - PreSonus AudioBox USB (\$149)
  - Roland Duo-Capture EX (\$199)
  - MOTU MicroBook II (\$249)
  - Apogee One (\$249) - Mac Only
  - Avid Mbox (\$399) - Comes with Pro Tools Express





# What do I need (cont'd)?

- A microphone
  - Condenser (needs phantom)
  - Rode NT1-A (\$229)
  - Shure PG42 (\$199)
  - Audio-Technica AT2020 (\$99)



# What do I need (cont'd)?

- A pop filter
  - Disposable vs. washable



# What do I need (cont'd)?

- Headphones
  - Make sure they are “closed”
    - To prevent mic bleed
  - Sennheiser HD280 Pro (\$99)



# What do I need (cont'd)?

- On a budget?
- All-in-one USB mic
  - Includes mic, interface, and cable in one device
  - Not “as good” as fancier equipment
  - Shure PG42USB (\$249)
  - Blue Spark Digital (\$199)
  - Audio-Technica AT2020USB+ (\$169)
  - Blue Yeti (\$129)

# What do I need (cont'd)?

- Software
  - Digital Audio Workstation (DAW)
    - Industry Standard: Pro Tools
      - Educational version (\$249), Full version (\$699)
    - Reaper (\$60)
      - Cross platform, lightweight, nearly as featureful
    - Others: SONAR, Cubase, Logic, Digital Performer, Samplitude
  - Beyond this class, but if you want to dabble in editing
    - Melodyne Studio (\$699)

The background is a dark blue gradient with a complex pattern of thin white lines. These lines form a grid-like structure with various geometric shapes, including circles, squares, and rectangles, some of which are partially cut off by the edges of the frame. The overall effect is that of a technical drawing or a modern, abstract design.

**HOW DO I USE IT?**

# How do I use it?

- Preparation – Organization is key!
- Make a spreadsheet
- Rehearse for recording
  - You'll record one a time, when you rehearse that way, you'll get people used to the exposure and identify part uncertainties

# How do I use it (cont'd)?

- How many people do you need to record per part?
  - Think about the function of the part
    - Big / thick – lots of people
    - Thing / clean – one person per part (pick the best)



# How do I use it (cont'd)?

- Edit your arrangements for the studio
  - What works live might not work recorded
  - If you're not sure how, have your tracking engineer do it in advance of the recording session
  - Bass parts often need this the most
    - Roots
- Leave time for setbacks!

# How do I use it (cont'd)?

- Edit your arrangements for the studio
- What works live might not work recorded
  - And vice-versa
  - If you're not sure how, have your tracking engineer do it in advance of the recording session
  - Bass parts often need this the most
    - Roots

# How do I use it (cont'd)?

- During recording
  - Understand what can and can't be fixed in editing / mixing
    - Can be fixed: pitch, rhythm
    - Can't be fixed: energy, emotion, tone, articulation, vowels
  - People will be nervous
    - Be willing to make a fool of yourself when demonstrating what you want.
  - Overdo everything!

# How do I use it (cont'd)?

- How to actually record
  - One person at a time
  - ~4-6 inches away from the mic
    - Pop filter should sit halfway between singer and mic
  - Convert the MIDI of the arrangement to a wav, and play it through one ear of the headphones
    - You can also add singers that have also recorded – not my preference, but many do it

# How do I use it (cont'd)?

- How to actually record (cont'd)
  - Get 2 takes of everything
    - Make 2 tracks for each singer, pan one 100% left, the other 100% right
    - Major exception: VP (non-cymbals)
    - If you aren't sure, get 2 takes
  - Set mic gain low enough to never “peak”

# How do I use it (cont'd)?

- Recording VP
  - Record a “live take” section-by-section
    - This will layout where the sounds happen in the pattern and capture the “organic” content
  - Record fills
  - Record quality samples in isolation
    - Kick, snare, toms (low, med, high), aux percussion
  - Record crash/suspended cymbals on separate tracks
    - Get doubles, let decay fully

# How do I use it (cont'd)?

- Keep your recording session organized
  - Name tracks by part *and* name
    - E.g. BassB-CJ1, not just CJ1
    - This will make next-stage producers' lives much better
  - Order your tracks from low to high

# How do I use it (cont'd)?

- After recording / before editing
  - Leave time to get creative!
  - Send bounce to next-stage producers
    - Specific questions are ideal, but an open-ended “What doesn’t work / could be better?” will give you an idea of where you stand
  - You will only have time for this if you are on / ahead of schedule



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**WHAT SHOULD I THINK  
ABOUT?**

# What should I think about?

- Why would I want to record myself?
  - You can save a lot of money
  - Flexible scheduling
  - You're not on anyone's clock
    - More freedom to experiment
    - You can be as OCD as you want

# What should I think about?

- Why should I NOT want to record myself?
  - An outside ear is immensely useful, both from a technical and creative standpoint
    - Producers have a lot of experience about what does and doesn't work, which can save time and frustration
    - Producers can also help fight political issues
  - Being responsible for both the technical and logistical aspects of recording is *a lot* of work

# What should I think about?

- Be realistic about your skills in the context of the project's goals
  - It's ok to learn on the job
  - However, if you overestimate your abilities, you risk compromising the quality of the final product

# What should I think about?

- Clearly define your goals
  - Who are you making your album for?
    - Your friends/family?
    - The a cappella community?
    - Pop charts?
  - What does your group want out of it?
    - Money?
    - Exposure?
    - Compilations/Awards?

**QUESTIONS?**