The 10 Steps For Recording and Mixing a Song in Under a Day
By Graham Cochrane

**STEP 1: Setup Your Recording Space**

**Most Bedrooms Don’t Sound Good**
- Bare walls cause nasty sounding reflections
- Windows and doors let in outside noises
- Small rooms create weird resonances
- Natural reverb isn't very appealing

**The Secret Is How You Setup Your Room**
- Place your computer/desk at one end of the room
- Don't be completely up against a wall
- Keep books on bookshelves and cover bare walls if possible
- Make space in the center of your room for recording

**Studio Setup Tip**
If you don’t have carpet, put a rug underneath your desk chair.

**STEP 2: Record The Instruments**

**Create Your Guide Track**
- Setup the metronome/click track for the song’s tempo
- You can also use a loop for this instead
- Create markers for each section (intro, verse, chorus, etc)
- Record any scratch tracks you might need for a guide

**Work From The Bottom Up**
- If possible record drums/beats first
- Next record any bass guitar/synth parts
- Finally add all guitars, keys, and other main instruments
- This creates the tightest performance possible

**Recording Tip**
Record with more conservative levels. It will sound better.
STEP 3: Record The Vocals

Choose The Right Microphone
- Most vocalists will benefit from a condenser microphone
- For louder/aggressive vocals consider a dynamic mic (stage mic)
- Every mic sounds different on every voice, so try all your mics
- Make sure your microphone is cardioid or set to the cardioid polar pattern

Choose The Right Distance
- The closer you get to a cardioid microphone the more the bass response
- The closer you are, the more erratic the volume will be if you move your head
- Stand about 1 foot away from the mic for the most balanced sound

Vocal Tip
Point the back of the mic to what you DON’T want to hear

STEP 4: Edit Your Tracks

Clean Up The Lead Vocal
- Comping - If you recorded multiple takes of the vocal, mix and match the best parts of each take
- Clean up any loud and annoying breaths, pops, or clicks
- Tune the vocals if need be (AutoTune can be quick but Melodyne gives you more control and sounds more natural)
- Always tune a COPY of the lead vocal so you can always go back to the original

Tighten Up The Bass/Drums
- Listen through the song and notice when the drums or bass timing seems off
- Manually cut and slide any parts that need a bit of help
- Don’t try to force things on the grid, do it by ear till it’s not a distraction
- If editing multi-track drums, lock them to a group so your edits keep the tracks all aligned

Editing Tip
A little goes a long way here. Perfection is not the goal - lack of distractions is.
STEP 5: Create a Static Mix

Balance The Volume & Pan
- Mix like it’s a live a show and simply balance the faders so it sounds good
- Choose the best panning for each track (left, center, right)
- Loop the song while you do this and continue to adjust as necessary

Static Mix Tip
Set a timer for 20 minutes. Working quickly forces you to react to the song and make the best balance possible.

STEP 6: EQ (Equalization)

Clean Up The Bad
- EQ is a powerful tool that allows you to turn up or down certain frequencies within a track
- Start by using it as a subtracting tool, carving out frequencies that don’t sound good
- Consider rolling off the low end of most tracks with a high-pass filter
- Remove any frequencies that your room emphasized that don’t sound good

Enhance The Good
- Now use EQ to boost the frequencies that you want to hear more of
- Fatten up bass instruments or brighten up lead vocals or strings
- Consider more modest boost of 3-6db to keep things sounding natural
- When in doubt bypass the EQ plugin to make sure that you’re actually helping the track

EQ Tip
Consider putting your mix in mono while you EQ. This prevents the stereo panning from fooling you and forces you to make better EQ decisions.
STEP 7: Compression

Control The Dynamics
- Compression is a smart volume fader in a box, allowing you to automatically turn things down and up
- Use to tame a lead vocal and make each word and syllable sound clear and up front
- Slow attack settings are more natural and gentle as are fast release times
- Experiment with both to see what it does to your track and leave it where it sounds best

Watch The Gain Reduction
- What matters most is not the knob settings but the gain reduction meter
- Look for conservative amounts of gain reduction like 3-6db on the loudest peaks
- Be sure to turn up the Make Up Gain at the end to balance the compressors output to the input level

Compression Tip
You can make a track sound fatter or have more energy simply by adjusting the attack time.

STEP 8: Reverb & Delay Effects

Give Your Tracks Some Glue
- If you record in a small bedroom or basement your tracks will be small sounding and dry
- Reverb can help give them a sense of space
- Putting all your tracks through one subtle reverb can “glue” the mix together
- Start with small room settings, then try plates

Add a Bit Of Echo
- That popular echo effect is achieved with a delay plugin
- Try some on a lead vocal or guitar to give them an effected sound
- Try quarter note delays, eighth note, and then sixteenth note to see which feels right
- I like to EQ out high frequencies on delay with the built in Low-Pass Filters

Reverb & Delay Tip
Don’t put these effects directly on a track, but rather on a buss or aux track and use sends to send a bit of each track to it.
STEP 9: Sweetening Your Mix

An Engaging Mix From Start To Finish
- Well produced songs are interesting and engaging from first beat to final note
- Listen through your song from start to finish and ask yourself "Is it still interesting here? Or would I change the radio station at this point?"
- Try adding vocal harmonies or synth pads to keep things interesting
- Also consider muting or deleting parts at certain moments to create a sense of a drop

Use Your DAW's Automation
- Your recording/mixing software (DAW) has powerful automation
- Use it to turn tracks up or down, pan them left or right, at different points of the song
- Consider having a more narrow verse and then a wider sounding chorus
- Use automation to turn on or off effects throughout the song

Sweetening Tip
Listen to your favorite songs on good headphones and take note of all the different elements they use to keep things interesting. Copy their ideas.

STEP 10: Mastering Your Song

Reference a Professional Song
- When you think you're done bring in a recording of a professional song to compare to yours
- Pay attention to the low end, top end, vocal level, kick and snare drum level
- What about the pro mix sounds better than YOUR mix? Make adjustments as necessary
- Keep in mind the pro mix will be much louder than yours so turn it down to match the level of your mix before comparing

Bring Your Song To Commercial Loudness
- Your mix will likely be much quieter than a professionally mastered song - let's fix that
- Use your DAW's Limiter plugin and place it on your master fader in the last plugin insert
- Set the ceiling to -0.5db and then begin pulling the Threshold down
- As the mix gets louder, watch the Gain Reduction meter and make sure it's not hitting more than -4db on the loudest peaks

Mastering Tip
When rendering down (bouncing down) your song to a final track make sure it's a 16 bit 44.1khz stereo Wav or MP3.