Design Your Custom Guitar

Designing a custom guitar that fits you can be a daunting task. Body styles and sizes vary widely while the list of available tonewoods seems to be changing every day. A basic understanding of the variables which affect the voice and projection of an instrument will help you focus on the best choices for your playing style.

Consider these questions as you design your custom guitar.

What style of music do you play?
Do you have a light, medium or heavy attack?
Will you be singing while playing your guitar?
What tonal properties do you prefer?
Do you play higher up the neck?
#1. Choose The Guitar Shape That Best Fits You

Your personal size can have a big influence on the guitar you choose. Smaller guitars can be more comfortable to hold and a bigger guitar may be more suited to a larger person. Generally smaller guitars tend to sound brighter with more treble response, while bigger guitars can have potential for greater bass response. One may expect a larger guitar to have a big sound and a smaller guitar to be diminished in volume but this is not necessarily the case. The experienced luthier can make a smaller guitar shockingly powerful in volume.

Finger Style
Smaller body styles are popular for fingerstyle playing, and tend to have more high-end treble response.

All Around
Midsized guitars are well balanced across all notes making them suitable for a variety of playing styles.

Rhythmic
Larger body styles are popular for aggressive strumming and have more resonate bass frequencies.
#2. Options

Full Body

Venetian Cutaway

Florentine Cutaway

Full Body w/ Arm Bevel

Venetian Cutaway w/ Arm & Cutaway Bevel

Florentine Cutaway w/ Arm & Cutaway Bevel
#3. Choose Scale Length

Scale length is calculated by measuring the distance from the nut to the center of the 12th fret and then doubling that measurement.

Strings tuned to the same pitch have greater tension on longer scales.

Shorter scale lengths are lighter to the touch and easier to fret while longer scale lengths are stiffer with more volume.

Typical scales for acoustic guitars are:

- Short - 24.9” (smaller guitars)
- Standard - 25.5” (medium size guitars)
- Long - 25.7”, 26.0” (alternate or dropped tunings)
- Baritone - 27.5”, 28.5” (larger guitars)
#4. Top Woods - Soundboards

**Adirondack Spruce**
- Has lots of “Headroom”
- High Overtone content
- Strumming, Flatpicking, Aggressive Fingerpicking

**European Spruce**
- Strong fundamental
- Good Overtone content
- Strumming, Flatpicking, Aggressive Fingerpicking

**Sitka Spruce**
- Punchy direct sound
- Lower Overtone content
- Strumming, Flatpicking

**Port Orford Cedar**
- Has lots of “Headroom”
- High Overtone content
- Strumming, Flatpicking, Aggressive Fingerpicking

**Englemann Spruce**
- Warm & Mellow
- High Overtone content
- Light Strumming, Fingerpicking

**Alaskan Yellow Cedar**
- Strong Bright Attack
- High Overtone content
- Great Sustain
- Strumming, Flatpicking, Aggressive Fingerpicking

**Western Red Cedar**
- Warm & Expressive
- High Overtone content
- Great for Celtic style, Fingerpicking

**Carpathian Spruce**
- Similar to Adirondack
- High Overtone content
- Sensitive to light touch
- Strumming, Flatpicking, Fingerpicking

**Redwood**
- Similar to Cedar but
- Crisper, more Punch
- Strong Overtone content
- Great Sustain
- Medium Strumming, Fingerpicking

**Sinker Redwood**
- Old-Growth Redwood logs reclaimed from the depths of Northern California rivers
#5. Back & Sides

Resonant Woods
- Complex Overtones
- Fast Response
- Piano-like Bass
- Low Dampening

African Blackwood
Zircote
Cocobolo
Madagascar Rosewood
Bubinga
Indian Rosewood
Macassar Ebony
Brazilian Rosewood

Harder Woods
- Transparant Quality
- Clear Tone
- Brighter
- Predictable Damping

Cherry
Maple
Myrtlewood
Ovangkol

Lighter Woods
- Subdued Overtones
- Strong Fundamental
- Dry, Woody, Warm
- Higher Damping

Koa
Mahogany
Quilted Sapele
Claro Walnut
#6. Pairings

Each guitar, as each person, has its own voice. These are just a few of the seemingly endless combinations possible.

**Sitka Spruce / Indian Rosewood**
A long time favorite combination for a variety of playing styles. Possibly the most versatile combination.

**Carpathian Spruce / Macassar Ebony**
A great combination for solo fingerstyle. Immediate crisp response yielding complex lingering overtones.

**Western Red Cedar / Claro Walnut**
Great for Celtic style, fingerpicking and voice accompaniment.

**European Spruce / Quilted Sapele**
A striking wood and sonic combination which works well in a smaller size guitar.

**Englemann Spruce / Cocobolo**
Also great for solo fingerstyle this combination responds easily to a light touch.

**Port Orford Cedar / Myrtlewood**
Good for voice accompaniment. Strong fundamental with limited overtone content.