PINEAPPLE UKULELE BUILD CLASS — SESSION 3

Bracing the top

The soundboard gets its skeleton today. We glue the full brace set — bridge plate, transverse braces, fan braces, and soundhole reinforcements — onto the top, flat in the go-bar deck, in that order.

> **Today's finish line**
> Each pair leaves with the top's full brace set glued and curing in the go-bar deck.



The destination: the full brace set, glued, trimmed and shaped.

WHERE TODAY'S WORK FITS

1. Brace stock + bridge	2. Join + thickness plates	**3. Brace the top**	4. Brace the back	5. Bend sides
6. Blocks, linings, rim	7. Close the body	8. Fit neck + fretboard	9. Finish	10. Bridge install + setup

STARTING MATERIAL

Thicknessed top plate with the soundhole cut (Session 2), plus your labeled brace set from Session 1: bridge plate, UTB, MTB, 3 fan braces, 2 soundhole reinforcements.

WHY IT MATTERS

The top plate is just a couple millimeters thick. The braces keep it from folding under string tension while letting it move freely — this is the structure your Session 1 bridge will drive.

Lay out the brace positions

Every brace goes in an exact spot from the plan. The shop's layout templates mark all the positions — no measuring each brace by hand.

INSTRUCTOR INSERT: LAYOUT TEMPLATES
Add photo of the brace layout templates in use, plus any marking tips, after the instructor supplies them.

SEQUENCE

1. Confirm the top is flat and the soundhole edge is clean.
2. Mark every brace position with the layout template.
3. Check that the fan braces mirror left to right.
4. Confirm the bridge plate centerline.
5. Set the template aside — the MDF bits take over at glue-up.

CHECKPOINT

- [ ] Every brace position is marked.
- [ ] Marks are light — no deep scores in the top.
- [ ] Fan braces mirror left to right.
- [ ] Ready for glue-up.

Glue up with the alignment bits

Two things fight you during brace glue-up: getting every brace in exactly the right spot, and **keeping** it there — wet glue is slippery, and go-bars push sideways as they press down. The MDF alignment bits solve both: they register each brace in place and stay on the top through the whole glue-up. Wax paper between the MDF and the top keeps squeeze-out from gluing them down too.

We glue with **Titebond Original** — strong, and reversible with heat and moisture if a brace ever needs to come off. The go-bar deck is this session's bottleneck: pairs rotate through, so have everything ready before your turn.



The spruce setup: go-bars press through cauls onto the braces with firm, even pressure.

> **Shop tip: two rounds, two cauls each**
> **Round 1:** bridge plate + transverse pair — two cauls. **Round 2:** fans + reinforcements — two cauls. Fans go on top of the bridge plate, so plate first. Do not span groups of different heights with one caul.

SEQUENCE

1. Lay wax paper where the MDF bits will sit.
2. Set the MDF alignment bits in place.
3. **Round 1 — bridge plate + transverse pair.** Thin film on the plate and transverse feet. Set the plate on centerline first, then UTB and MTB against their bits. Load go-bars through two cauls — one for the plate, one spanning the transverse pair. Check the plate is still on centerline; wipe squeeze-out.
4. **Round 2 — fans + soundhole reinforcements.** Test-fit each fan first — trim where it crosses the bridge plate and the middle transverse brace (MTB) until it sits flat, no rocking, no gap. Pare or sand a little, test-fit again. Then thin film on each foot. Set the fans — they go on top of the bridge plate, so check the plate has not moved — then the reinforcements. Load go-bars through two cauls — one over the fans, one over the reinforcements.
5. Check every brace for shifting, especially the bridge plate centerline; wipe squeeze-out.
6. Leave the deck loaded and undisturbed to cure.

CHECKPOINT

- ☐ Wax paper under every MDF bit.
- ☐ Every brace seated against its bit.
- ☐ Bridge plate on centerline; fans on top of the bridge plate, trimmed to sit flat at the plate and MTB crossings.
- ☐ Pressure even — no brace starved or swimming.
- ☐ Squeeze-out wiped before it skins over.
- ☐ Deck stays loaded until the instructor clears it.

WRAP-UP

Cure, then trim and shape

Titebond Original takes hours to set, so trimming waits until the glue has cured — at the start of the next session, as part of brace shaping in general.

SHAPING THE BRACES

Peel the wax paper and lift the MDF bits. Trim the brace ends to **1/16 in. height** where they meet the side wall, and taper the ends where they will meet the kerfing with a chisel after gluing. Leave the brace crowns full height for now; voicing comes later.

BEFORE YOU LEAVE TODAY

- [ ] Deck stays loaded until the instructor clears it.
- [ ] Nothing touched — the glue needs hours, undisturbed.
- [ ] Bench cleared for the next pair.

AT SHAPING TIME

- [ ] All braces glued solid — no hollow taps or lifted ends.
- [ ] Brace ends trimmed to 1/16 in. at the side wall.
- [ ] MDF bits wiped clean and back on the shelf.

BUILD LOG

What worked well today?

What should I check before the next operation?

NEXT SESSION

Session 4 opens by trimming and shaping the cured top braces, then braces the back — the same go-bar routine with the back-brace set.

COURSE SIMPLIFICATIONS

The instructor supplies the neck and fretboard. Rosette, binding, neck construction, and CNC inlay are optional advanced work.