

Posting Date: 2018-02-27	Level: Beginner	Title: Structural Wiring	Species: Any
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- 1) Structural Wiring principles apply to trunk & primaries **ONLY**
- 2) **Consistently:** apply wire at 55-60°; same turn spacing
 - a) *Even at shoulder/collar/base crossings!!! (no coiling!)*
- 3) No substantial air gaps (**hug**, don't squeeze, bark w/wire)
- 4) "Same angle, same spacing, no gaps"**
- 5) Position your body to the **side** of the branch
- 6) Function depends upon **points of immobility (poi)**:
 - a) *On crown of root system at trunk base*
 - b) *On collar of each primary branch*
- 7) Cross trunk base or branch collar **opposite** bend direction
 - a) *Wire stretches at poi then resists spring-back forces*
 - b) **Except** when **acute angle** prevents shoulder/collar contact
 - i) *Can twist when bending to take up the slack*
 - ii) *And/or use guy wire*
- 8) During actual bend, **press wire to tree firmly at poi**
- 9) Leave extra length of wire to maintain leverage
- 10) Apply with **straight-line motions** to cover each 90° of wrap
- 11) Avoid unnecessary (un)bending of wire during application
- 12) Support branch/trunk just $\frac{1}{2}$ **turn behind** w/other hand
- 13) Pair nearby branches needing similar gauge w/same wire
- 14) Protect crotches on primaries by wiring outside not inside
- 15) Wire **1½ turns beyond a crotch** where gauge should change
- 16) Bend at point where wire touches **INSIDE** of curve
 - a) *Bend point (bp) is **fulcrum**: hold/press wire in place there!*
 - b) *Also hold/press wire on opposite side $\frac{1}{2}$ **turn away***
 - c) **Limit bend:** watch bark opposite bp start to separate
- 17) Bend so branches emerge on **outside of curve** (*Creates fan-shaped pads*)

Posting Date: 2018-05-08	Level: Beginner	Title: Detail Wiring (Part 1)	Species: Any
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- 1) Builds upon structural wiring backbone/skeleton
- 2) Consistently: apply wire at 55-60°; same turn spacing
 - a) *No coiling!*
- 3) No substantial air gaps (**hug**, don't squeeze, bark w/wire)
- 4) "Same angle, same spacing, no gaps"**
- 5) Position your body in **front** of the branch, looking along it toward trunk
- 6) **Prepare** branch carefully prior to wiring:
 - a) **Clean** crotches: assure $\frac{1}{8}$ - $\frac{1}{4}$ " gaps for wire
 - b) Remove **dead & weak** growth
 - c) Leave **only 2 branches per node/crotch**
 - d) Prefer **lateral** over top/bottom unless "needs must"
 - e) Decide lengths for **desired silhouette NOW**
 - f) Prune tertiary (*deciduous*) to ≥ 2 buds for taper/backbudding
- 7) Pair **nearby** branches of **similar size** to share wire
- 8) Overlap previous thicker wire on one of each pair
 - a) *Follow helical path of thicker wire*
- 9) Other half of pair must have **opposite** helical orientation
- 10) **Never change** helical orientation once cw or ccw is chosen!
- 11) **Always** enter any crotch from outside (trunk-side)
- 12) **Leave 1½ turns** beyond the terminal crotch
- 13) "Off" hand: **gently pinch** wire-to-branch $\sim \frac{1}{2}$ turn behind
- 14) Wire underneath tip (to support & protect); **no loop!**
- 15) Crossing wires *sometimes* necessary to avoid see-saw

Posting Date: 2018-05-29	Level: Beginner	Title: Detail Wiring (Part 2)	Species: Any
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- 1) First bend of child branch **ALWAYS INWARD** toward parent ("main")
- 2) Second bend **always out**, away from parent branch ("sun")
- 3) "In toward the main, out toward the sun"
- 4) Adjust up/down bends to **keep pad bottom flat**
- 5) Bend secondaries/tertiaries subtly compared to primaries
- 6) One goal is to **assure good light** to all foliage! (**photosynthetic efficiency**)
- 7) "Keep it simple, keep it straight"
- 8) PINE tips should point SLIGHTLY upward
- 9) Still should make contact with collar at forks!
- 10) Same angle, same spacing, no gaps!
- 11) If have less than 1.5 turns of structural wire to overlap. can cross wire if it provides support
- 12) No crossing of structural branches but fine tips can cross subtly as long as good light to all foliage
- 13) Strive toward uniform foliage distributions
- 14) Once a wire starts as CW (or CCW), it should NOT change
- 15) Off-hand should hold branch and wire together while wire goes on, moving outward on each turn
- 16) Avoid breaking PINE needles by careful support by off-hand from below
- 17) PINE branching can be multi-layered pads (so can cross branches)
- 18) Pluck PINE needles where needed so as to avoid crushing them
- 19) Lay down elongating species foliage pads FLAT (hemlock, larch, redwood, etc.)
- 20) Deciduous styling: more dramatic bends than conifers, as well as variation in vertical foliage distribution
- 21) Well executed deciduous wiring requires ONE structural & TWO detail wirings, followed by CLIP & GROW
- 22) MASCULINE design should have larger pad width & thickness, more merged/unified pads
- 23) FEMININE design should have narrower, more separate, and thinner pads
- 24) DECIDUOUS lend themselves to more feminine design