Blunt transplant dibble with a split depth stop

Form a repeatable pilot hole in loose propagation medium using a blunt four-facet point, while a removable split collar limits travel. The tool makes a hole; it does not prescribe a crop planting depth or compact a hard-soil planting pit.

Capacity and fit

Point-to-handle height 14 in (355.6 mm); 8 in (203.2 mm) cross grip. Point tapers over 3 in to a flat 1/4 in square (76.2 mm taper, 6.4 mm flat). Collar bottom adjusts from 3 to 6 in (76.2 to 152.4 mm) above the tip. Use only with a crop/container protocol compatible with that range.

Limits

Loose potting/propagation medium only. No foot pressure, hammering, levering roots or drilling hard soil; withdraw if significant resistance appears.

Hole width/depth does not replace node placement, media or rooting guidance. Check the actual root/cutting and container before use; do not force a shallow container over the tip.

Finished component envelope

8 x 3 x 14 in / 203.2 x 76.2 x 355.6 mm (x, y, z). Solid-part envelope; operating sweep and loose purchased accessories excluded. Axes: x left-right, y front-back, z up.

Cut list - actual dimensions

Part / quantity	Finished L x W x T / material
P01 / Four-facet stem / 1	13 1/4 x 1 1/2 x 1 1/2 in / 336.5 x 38.1 x 38.1 mm. Straight-grained untreated hardwood, measured actual 1 1/2 in square
P02 / Cross grip / 1	8 x 1 1/2 x 3/4 in / 203.2 x 38.1 x 19.0 mm. Smooth hardwood; nominal 1 x 2, actual 1 1/2 x 3/4 in
P03 / Split stop block / 2	4 x 3/4 x 3/4 in / 101.6 x 19.0 x 19.0 mm. Straight smooth hardwood, actual 3/4 in square

Hardware and consumables

- Two #8 x 2 in (50.8 mm) wood screws for the cross grip.

- Two 1/4-20 x 4 in (101.6 mm) full-thread hex bolts, four wide 1/16 in-thick washers and two through-thread hand knobs/wing nuts. Do not use a blind knob that bottoms on the bolt before clamping.

- One separate rule; soft temporary collar-setting mark. No metal point or blade is installed in the finished tool.

Tools

Tape measure and combination square; Pencil, clamps and safety glasses; Saw with wood blade; drill/driver and piloting bits; 120- and 180-grit abrasive; Plane/rasp suitable for hardwood; 9/32 in bit; backing wood.

Fastener direction and joint schedule

- Grip screws cross 3/4 in grip and enter the stem end 1 1/4 in. Collar bolts span two 3/4 in blocks plus 1 1/2 in stem width: 3 in before washers/knobs.

- Two 1/16 in washers add 1/8 in per bolt stack. The 4 in bolt must engage the actual through knob fully and leave at least two complete threads beyond a wing nut.

Build sequence

01. Cut the stem to 13 1/4 in from straight-grained actual 1 1/2 in-square wood. Mark a line 3 in above its bottom on all four faces; reject a blank with a knot or split across the working end.

02. On the bottom end mark a centered 1/4 in square: its edges are 5/8 and 7/8 in from either original side. These four corners define the blunt final flat.

03. Connect each bottom-square corner to the appropriate 3 in shoulder marks. Clamp and plane/rasp equal facets on four sides, checking symmetry after every pass. Do not sharpen the flat into a point.

04. Sand the four facets and flat without rounding the upper parallel faces. A cloth must pass over the working end without catching; confirm the 3 in taper and 1/4 in flat with a rule.

05. Cut the cross grip to 8 x 1 1/2 x 3/4 in. Center it over the stem at x=-3 1/4, y=0, z=13 1/4 in, leaving equal 3 1/4 in side overhangs.

06. Predrill two vertical grip screws at x=3/8 and 1 1/8 in, y=3/4 in. Drive 2 in screws down through the 3/4 in grip into the stem end 1 1/4 in. Set heads flush and round exposed grip edges.

07. Cut two 4 in stop blocks from actual 3/4 in-square stock. Drill 9/32 in holes through the y direction at local x=1/2 and 3 1/2 in, centered z=3/8 in, using a backing block.

08. Place blocks against front/back stem faces at y=-3/4 to 0 and 1 1/2 to 2 1/4 in. Insert bolts at x=-3/4 and 2 1/4 in; add outside washers and through knobs. The bolts pass beside, not through, the 1 1/2 in stem.

09. With the tool resting on its blunt flat, set both collar bottoms to the crop-selected depth within 3 to 6 in. Measure on both sides so the stop is square, then snug both knobs evenly by hand.

10. Test in an empty trial container filled with the intended loose medium. Push by hand only until the collar just touches the surface, withdraw straight and compare the actual hole to the required root/cutting fit. Do not use the tool where the necessary protocol falls outside its working range.

11. Loosen and reset the collar to another allowed position to verify travel and repeatability. If it creeps, split blocks or damaged stem faces must be repaired; do not compensate by excessive knob force.

Acceptance checks

- Tip remains a flat 1/4 in square with four symmetric facets; no splinter or metal point.

- Grip screws stay buried and the cross grip cannot rotate by gentle hand inspection.

- Both stop faces are square at the selected 3 to 6 in depth; actual trial-hole depth agrees before plants are introduced.

Use

- Use the actual crop propagation instructions for the root/cutting, and make only a suitable pilot opening. Backfill/firm the medium as those instructions require rather than treating a dibble-shaped void as a planting specification.

Care

- Brush off media after use, dry the wood and recheck the flat tip and collar grip. Replace a cracked stem, loose grip or split block; keep hardware clean and lightly moving.

Primary context sources

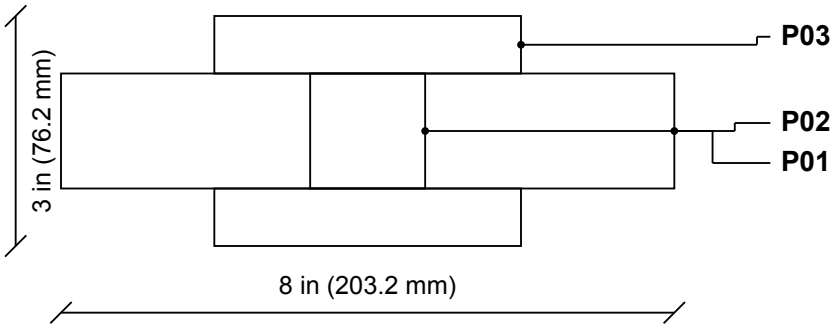
Oregon State University Extension: Vegetative plant parts. Stem nodes and propagation orientation; each crop needs its own horticultural protocol.

University of Missouri Extension: Home Propagation of Houseplants. Keep covering off leaves and keep plastic-covered cuttings out of direct sun. No universal humidity, rooting-time or crop-success claim.

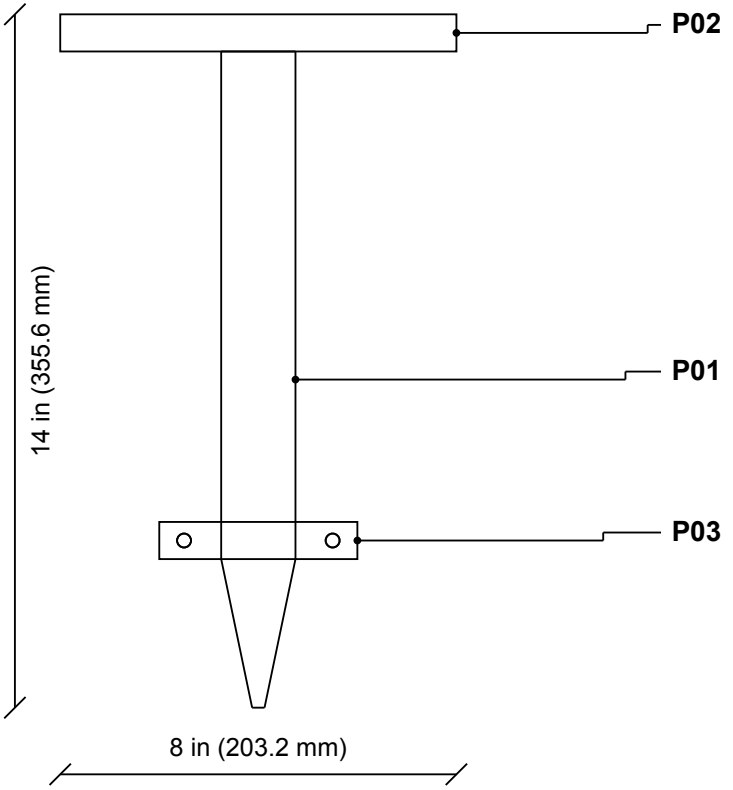
OR-009 / ASSEMBLY VIEWS

Combined tags mark coincident profiles. Repeated members share one callout. P-numbers match the cut list.

PLAN / x-y



FRONT / x-z

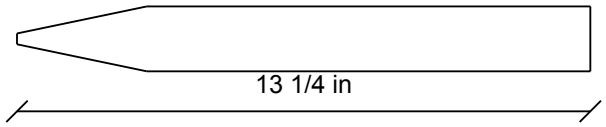


Geometry is schematic orthographic projection. Working clearances and fastener directions are specified in the text.

No scale measurement from this sheet. Use written dimensions. Unbuilt original design.

OR-009 / CUT AND MACHINING 1

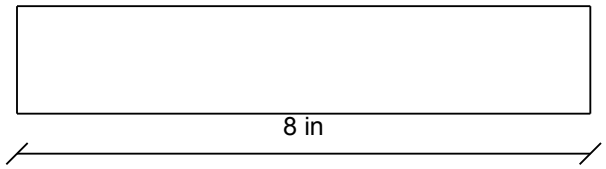
Face view: length horizontal, width vertical. T = actual thickness. Square cuts unless stated.



P01 Four-facet stem / qty 1

13 1/4 x 1 1/2 x 1 1/2 in / 336.5 x 38.1 x 38.1 mm

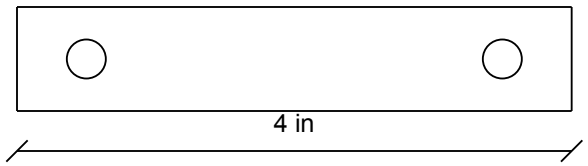
Taper the bottom 3 in equally on four faces to a centered 1/4 in square flat; keep the upper faces parallel.



P02 Cross grip / qty 1

8 x 1 1/2 x 3/4 in / 203.2 x 38.1 x 19.0 mm

Round exposed grip edges; keep central underside flat.



P03 Split stop block / qty 2

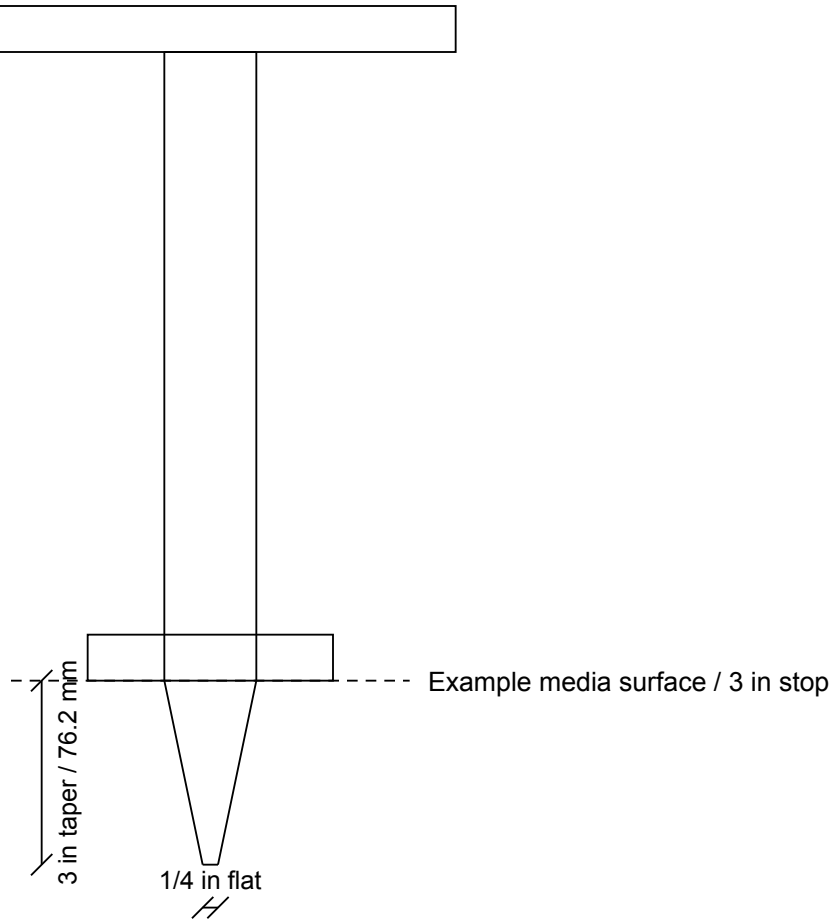
4 x 3/4 x 3/4 in / 101.6 x 19.0 x 19.0 mm

Two 9/32 in holes through thickness, centers local (1/2, 3/8), (3 1/2, 3/8) in on the x-z face.

Dimensions in inches control; metric equivalents are in the cut list. Hole locations are measured from the stated face corner.

OR-009 / POINT FACETS AND SELECTED DEPTH

Front view uses the actual retained taper profile. Repeat the same taper on the perpendicular pair of faces.



Stop range: 3 to 6 in above tip.

Measure both collar ends equally.

Loose media and hand pressure only.

Grip joint: 2 in screws downward.

Cross 3/4 in; embed 1 1/4 in.

No sharp point, foot step or hammering.

A crop's actual depth and node placement

remain separate propagation decisions.

Withdraw straight. Stop at resistance or an incompatible container; the wood dimensions are not universal biological instructions.