GA-006 Garden row-line winding paddle

Store and tension one reusable planting alignment line without tangling it.

Controlling dimensions: US inches and feet. Metric equivalents are references. Original editorial design; no physical build, animal trial or load certification is claimed.

Before marking and cutting

Measure the stated stock sections before cutting. Use the cut-list geometry, not scale measurements from the drawing.

US inch dimensions control; millimeter values are rounded conversions. Ordinary cut target ±1/16 in (1.6 mm); fit commercial accessories before boring attachment holes.

Use limits

Original bounded garden component, not an occupied structure.

No human standing, sitting, climbing, lifting or fall protection use. No stated safe working load.

Geometry and fastener quantities are editorially checked; no prototype build, wind test or crop trial is claimed.

Materials and finished cuts

Part	Qty	Size to cut	Material and detail
P01 Paddle blank	1	16 × 4 × 3/4 in 406.4 × 101.6 × 19.05 mm	measured 3/4 in plywood exterior-bond plywood for protected non-food-contact fixtures
P02 Hand grip spacer	1	4 × 1 1/2 × 3/4 in 101.6 × 38.1 × 19.05 mm	1 × 2 in board sound untreated cedar or other durable untreated wood; no unknown salvage

Hardware and consumables

2 #8 × 1-1/4 in screws

50 ft (15.24 m) braided alignment line, not load-bearing rope

2 smooth commercial row stakes, height chosen for site

Tools

Tape measure and steel rule; Pencil, square and clamps; Saw suited to the stated stock; eye and hearing protection; Drill/driver, countersink and bits matched to fasteners; Sandpaper and edge file; gloves when handling cut mesh

Primary context and design record

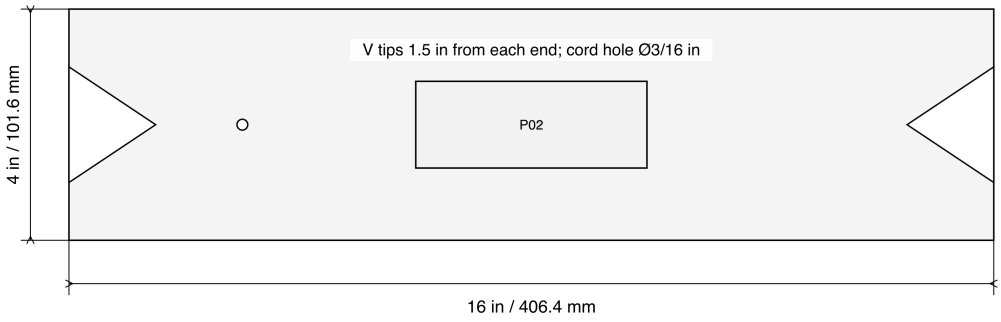
Context references; not design endorsements or certifications.

E01 · Raised bed gardens · University of Minnesota Extension · https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/raised-bed-gardens

Assembly and first checks

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PLAN — looking down; rear at top; controlling dimensions in inches



Part IDs refer to the finished cut list. Shapes are not load-rated. Read assembly before cutting.
Notches, holes, fittings and operating angles: see numbered steps and geometric annotations.
Original editorial draft • B/W vector • not physically built or tested • no implied Extension endorsement

01 Plan the garden row-line winding paddle for this result: Store and tension one reusable planting alignment line without tangling it. Confirm the design reference before cutting: Both V throats rounded; no cutting edge contacts the line. In the drawings x runs left to right, y runs front to rear and z runs upward.

02 Verify the required stock before laying out these parts: 1 × 2 in board: actual 0.75 × 1.5 in (19.05 × 38.1 mm); measured 3/4 in plywood: measured thickness 0.75 in. Reject split or twisted wood and unknown salvage; thinner stock requires recalculating the joints, not simply using the listed lengths.

03 Cut and label the finished parts: 1 Paddle blank 16 × 4 × 0.75 in (406.4 × 101.6 × 19.05 mm), mark P01; 1 Hand grip spacer 4 × 1.5 × 0.75 in (101.6 × 38.1 × 19.05 mm), mark P02. Keep saw kerf outside each finished line. Rip only where the finished width is narrower than the actual stock; use a suitable guide and target ±1/16 in (1.6 mm) for ordinary cuts. Dowel triples mean length × diameter × diameter, not square dowel stock.

04 Lay out two centered V notches on the short ends: apex at x = 1-1/2 and 14-1/2 in, both at y = 2 in. Each mouth extends from y = 1 to 3 in.

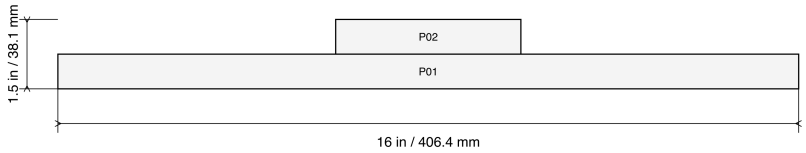
05 Cut along the four notch lines outside the marks, then round each apex with a file. The notch throat must not contain saw splinters.

06 Drill a 3/16 in line-anchor hole at x = 3 in, y = 2 in. Sand both faces of the hole so the cord cannot chafe.

Complete the assembly

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FRONT — transparent assembly projection from y = 0; controlling dimensions in inches



Part IDs refer to the finished cut list. Shapes are not load-rated. Read assembly before cutting.
Notches, holes, fittings and operating angles: see numbered steps and geometric annotations.
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07 Place the 4 in grip spacer over x = 6–10 in. Pilot two holes at x = 7 and 9 in, centered at y = 2 in.

08 Fasten from the underside with the two 1-1/4 in screws; confirm the heads are flush and neither point emerges through the grip.

09 Tie one line end through the anchor hole using a simple stopper knot. Wind the line between both V notches, distributing wraps side by side.

10 Walk the line out between two row stakes. Tie to the stakes separately; do not leave the paddle supporting a stretched overhead cord.

11 Align the marked row with the line, then remove the line immediately after planting so it does not become a trip or entanglement hazard.

12 Complete the acceptance checks below before putting the assembly into service. Record any changed stock thickness, fastener or equipment fit on the project sheet. The published geometry has not been physically built or load-tested.

Acceptance and intermediate checks

Both V throats rounded; no cutting edge contacts the line.

Grip is secure; line can pay out without pulling neighboring turns.

Operation

Ground-level alignment only; no support, restraint, trapping or lifting use.

Cleaning and maintenance

Air-dry line before winding and replace frayed sections.