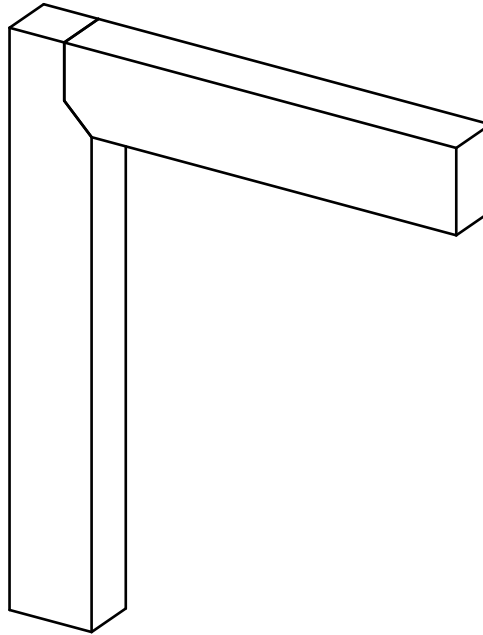


Mitred shoulder corner



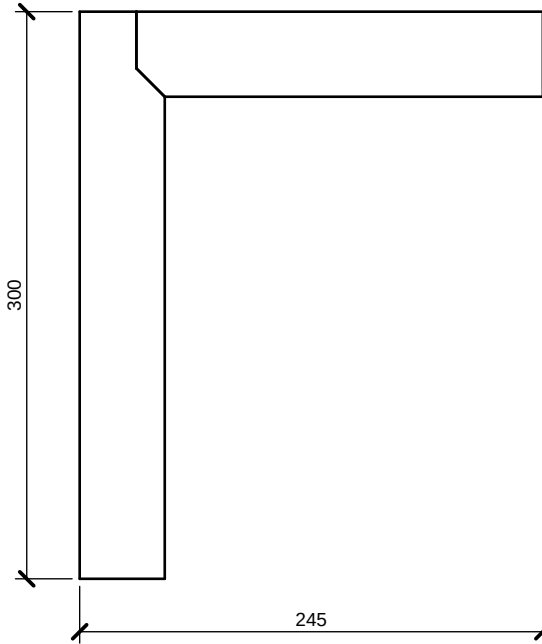
parts	2
overall	245 x 30 x 300 (W x D x H)
material	oak
date	2026-10-25
made with	woodwright 0.9.0

Contents

Drawings	3
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1 stile	5
2 rail	6
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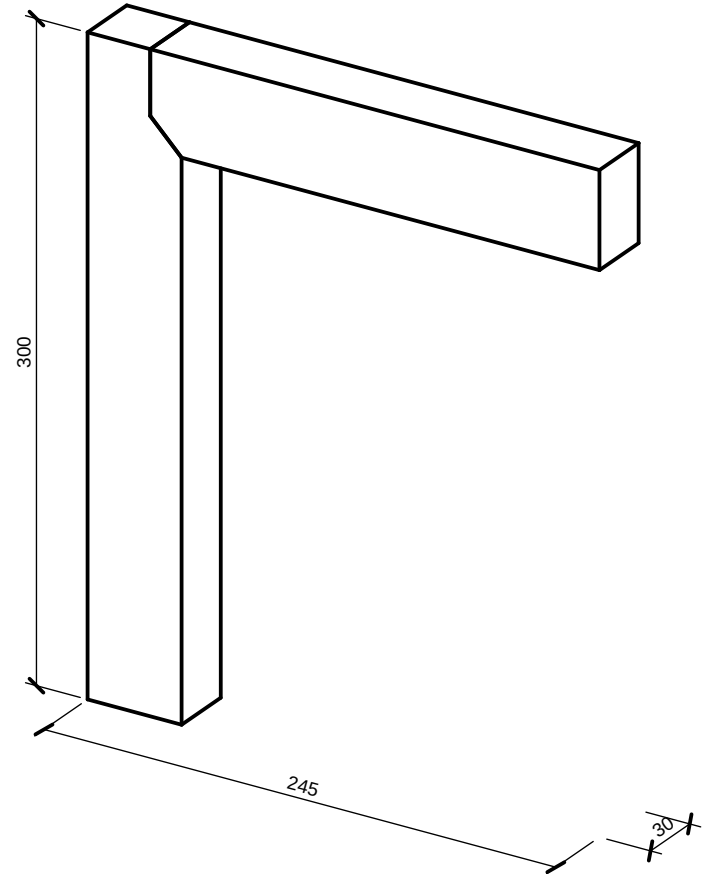
TOP



FRONT

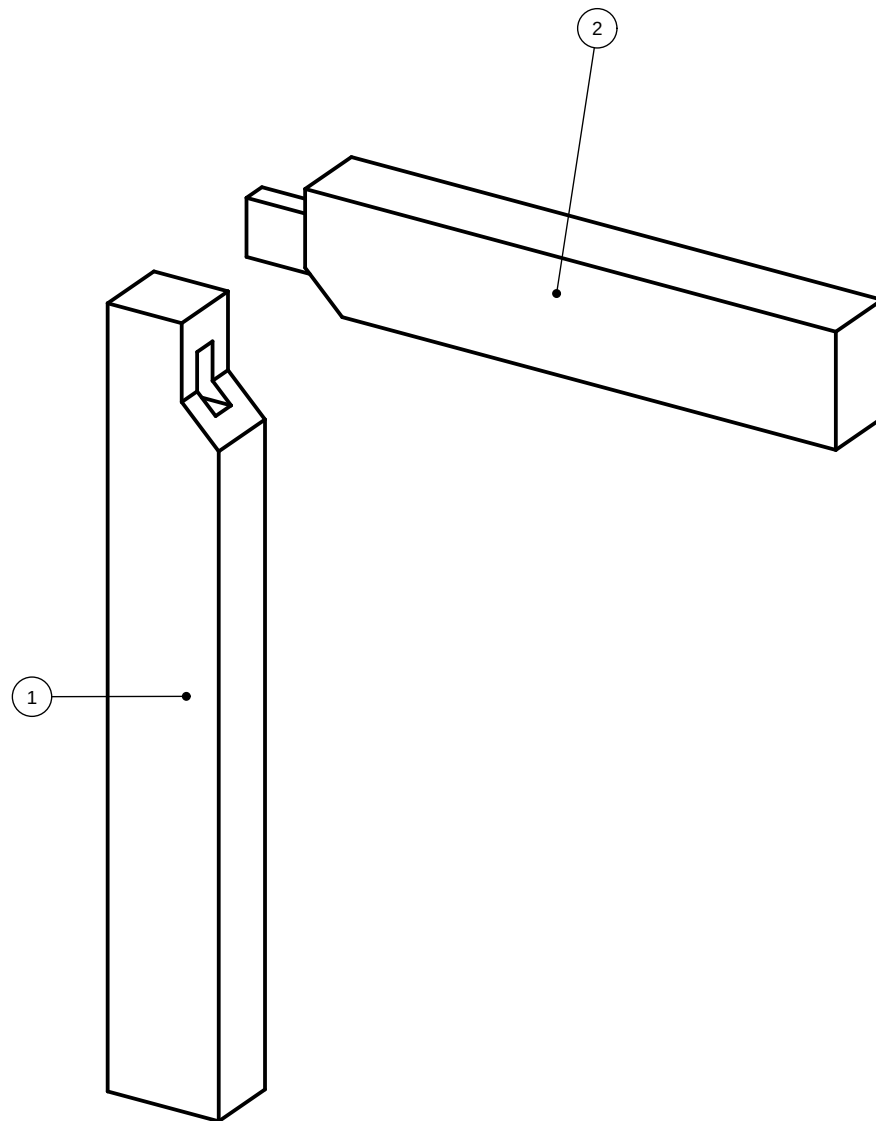


RIGHT SIDE



ISOMETRIC

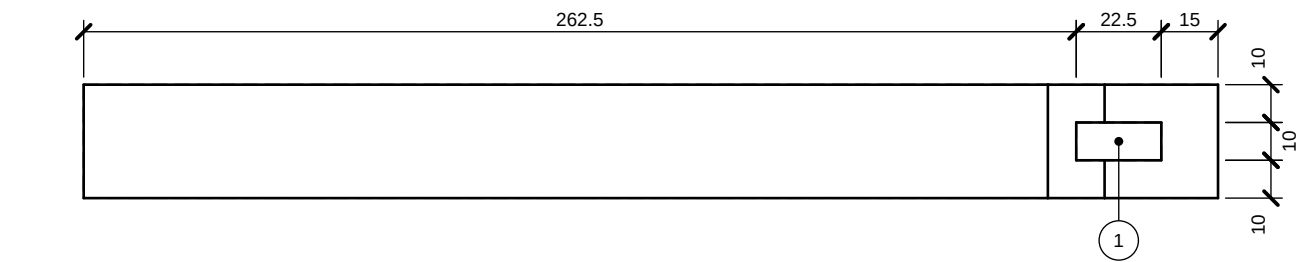
assembly	mitred_shoulder_corner
parts	2
overall	245 x 30 x 300 (W x D x H)
material	oak
scale	1:4, mm



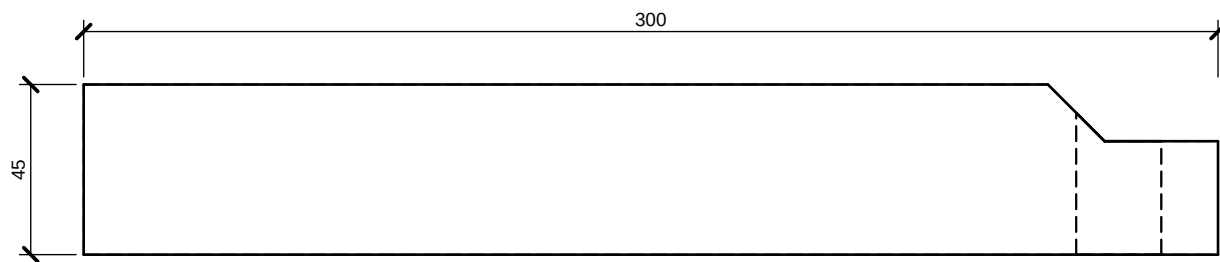
no.	part	qty	cut size (L x W x T)	material
1	stile	1	300 x 45 x 30	oak
2	rail	1	245 x 45 x 30	oak

EXPLODED

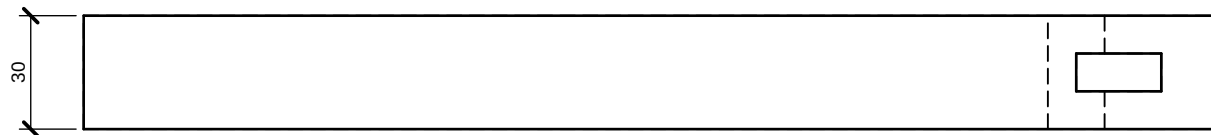
assembly	mitred_shoulder_corner
parts	2
overall	245 x 30 x 300 (W x D x H)
material	oak
scale	not to scale, mm



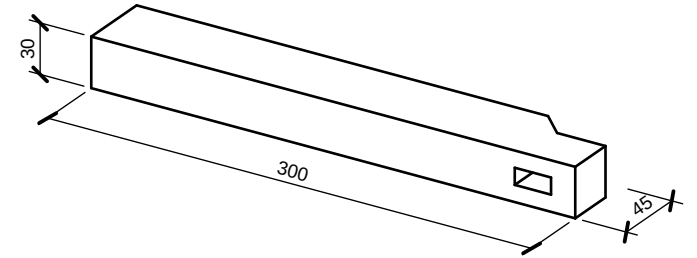
BACK EDGE



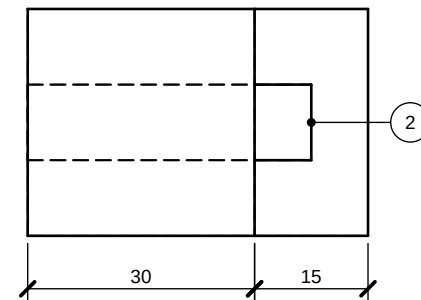
TOP FACE



FRONT EDGE



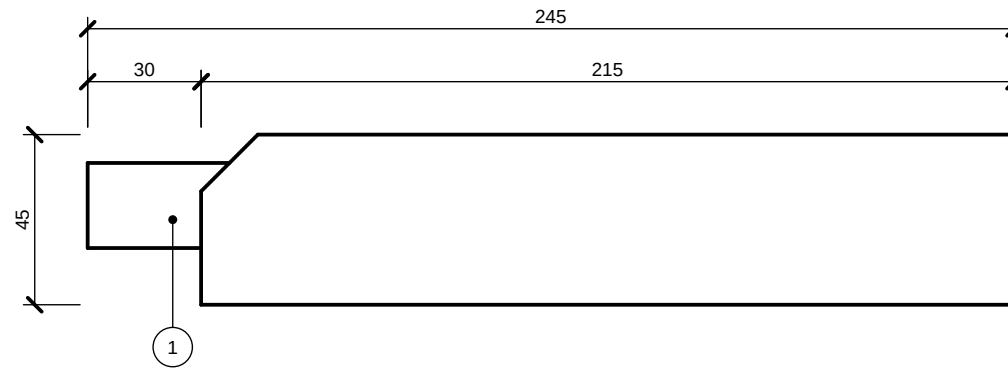
ISOMETRIC



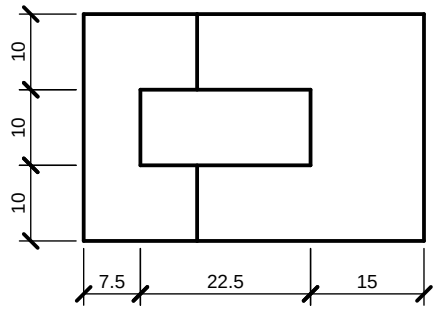
RIGHT END 1:1

- 1 through mortise 22.5 x 10 mm in back_edge
 2 notch 45 long, 15 deep, mitred at one end, in back_edge

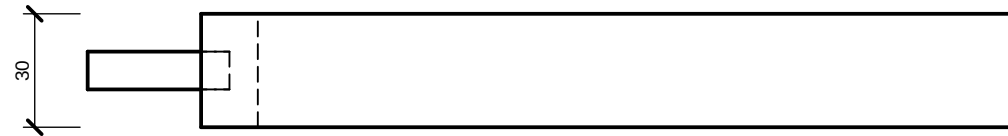
part	stile
of	mitred_shoulder_corner
make	1
cut size	300 x 45 x 30
material	oak
scale	1:2, mm



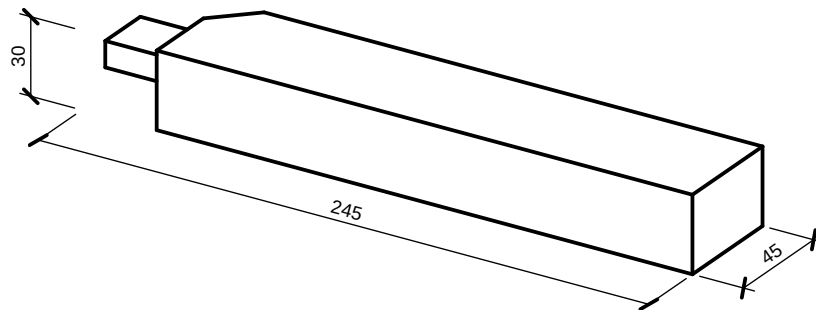
TOP FACE



LEFT END 1:1



FRONT EDGE



ISOMETRIC

1 tenon 22.5 x 10 mm, 30 long, reaching 15 beyond the shoulder, mitred at back_edge, on left_end

part	rail
of	mitred_shoulder_corner
make	1
cut size	245 x 45 x 30
material	oak
scale	1:2, mm

Cut list

stile 300 x 45 x 30 mm oak
- through mortise 22.5 x 10 mm in back_edge
- notch 45 long, 15 deep, mitred at one end, in back_edge
rail 245 x 45 x 30 mm oak
- tenon 22.5 x 10 mm, 30 long, reaching 15 beyond the shoulder, mitred at back_edge, on left_end

Appendix: source

Made with woodwright 0.9.0, build123d 0.13.0, Python 3.14.4.

To make these plans again:

```
uvx --python 3.14 woodwright==0.9.0 export joints.mitred_shoulder_corner
```

joints.mitred_shoulder_corner, in woodwright/examples/joints.py

```
def mitred_shoulder_corner(
    stile_length: float = 300,
    rail_length: float = 200,
    width: float = 45,
    stock: Stock = THICK_OAK,
) -> Assembly:
    """An L-shaped frame corner of square-ish stock, mitred only at the inner edge.

    Like a mitre corner whose mitre stops a third into the stile; the rest
    is butted, with a through tenon behind the notch. The tenon reaches
    half-way under the mitre, but keeps a full shoulder towards the end of
    the stile, so that enough material is left there.
    """
    asm = Assembly("mitred_shoulder_corner", root_location=STANDING)
    stile = asm.add(Board("stile", stock, length=stile_length, width=width))
    rail = asm.add(Board("rail", stock, length=rail_length, width=width))
    depth = width / 3
    asm.join(
        MitredShoulderTenon(
            tenon=rail.left_end,
            mortise=stile.back_edge,
            position=flush_with(stile.right_end),
            mitre_depth=depth,
            mitred=(rail.back_edge,), # the inner edge
            tenon_length=width - depth, # through
        )
    )
    return asm
```