Supplementary Material for
A Versatile Octagonal Beam and V-Piece to Create Sculptures

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Abstract

We provide additional images for our Bridges 2025 paper.

Additional images

Figures 1 through 4 appear in the paper in Figures 1 and 5 as smaller images. Figures 5 through 9 show additional artwork. Figures 10 through 22 are additional illustrations for the paper.

Figure 1: Rotunda, *from 48 octagonal pieces (maple wood, 37.5 cm diameter).*

Figure 2: *Three rings connected by V-pieces (oak wood, $h \times w = 20 \times 32$ cm).*

Figure 3: Lantern*, (maple wood,* 22×17.5 *cm).*

Figure 4: *Octagonal cycle with square (maple wood,* 17.5×17.5 *cm).*

Figure 5: Tower *(maple,* $17,5 \times 17.5 \times 57$ *cm).*

Figure 6: *Three connected squares (maple,* $14 \times 17.5 \times 21$ *cm).*

Figure 7: *Two intersecting rectangles (maple,* $12 \times 12 \times 29$ *cm).*

Figure 8: *8-sided cycle with bypass (maple,* $17,5 \times 17,5 \times 20$ *cm).*

Figure 9: *Climbing prisms (maple,* $17.5 \times 17.5 \times 60$ *cm).*

Figure 10: *Visit at studio of Koos Verhoeff (Jan. 2015).*

Figure 11: *Koos and Tom Verhoeff visit studio of Friedhelm Kürpig (Nov. 2017).*

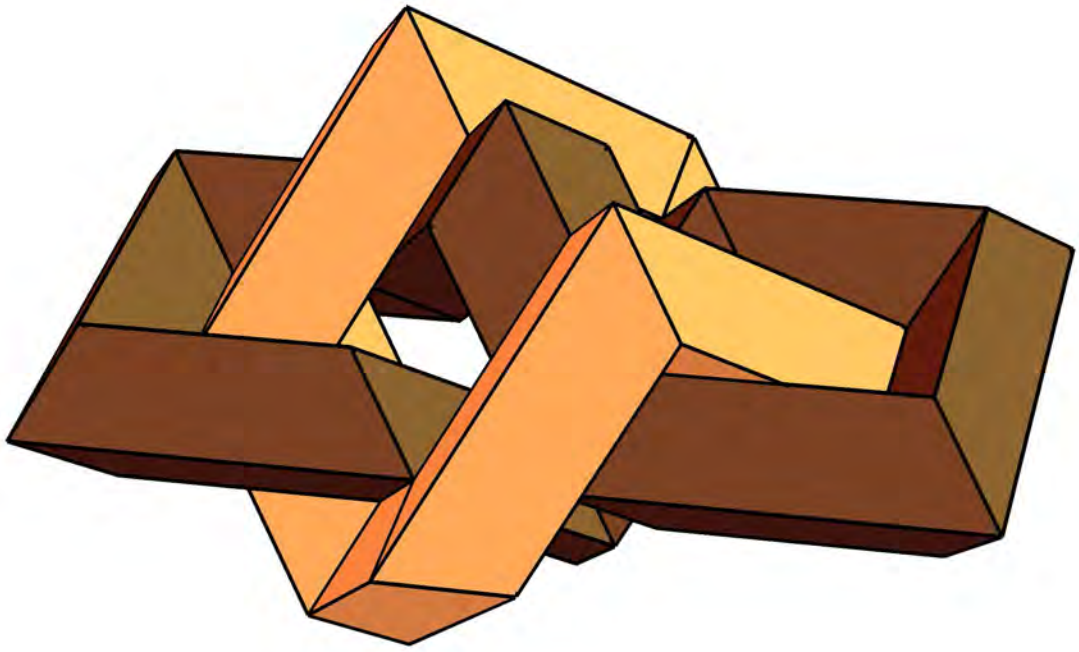


Figure 12: *Early sketch for joint work (Whitehead link, linking number zero).*

Figure 13: *Decagonal cycle for joint work (wenge).*

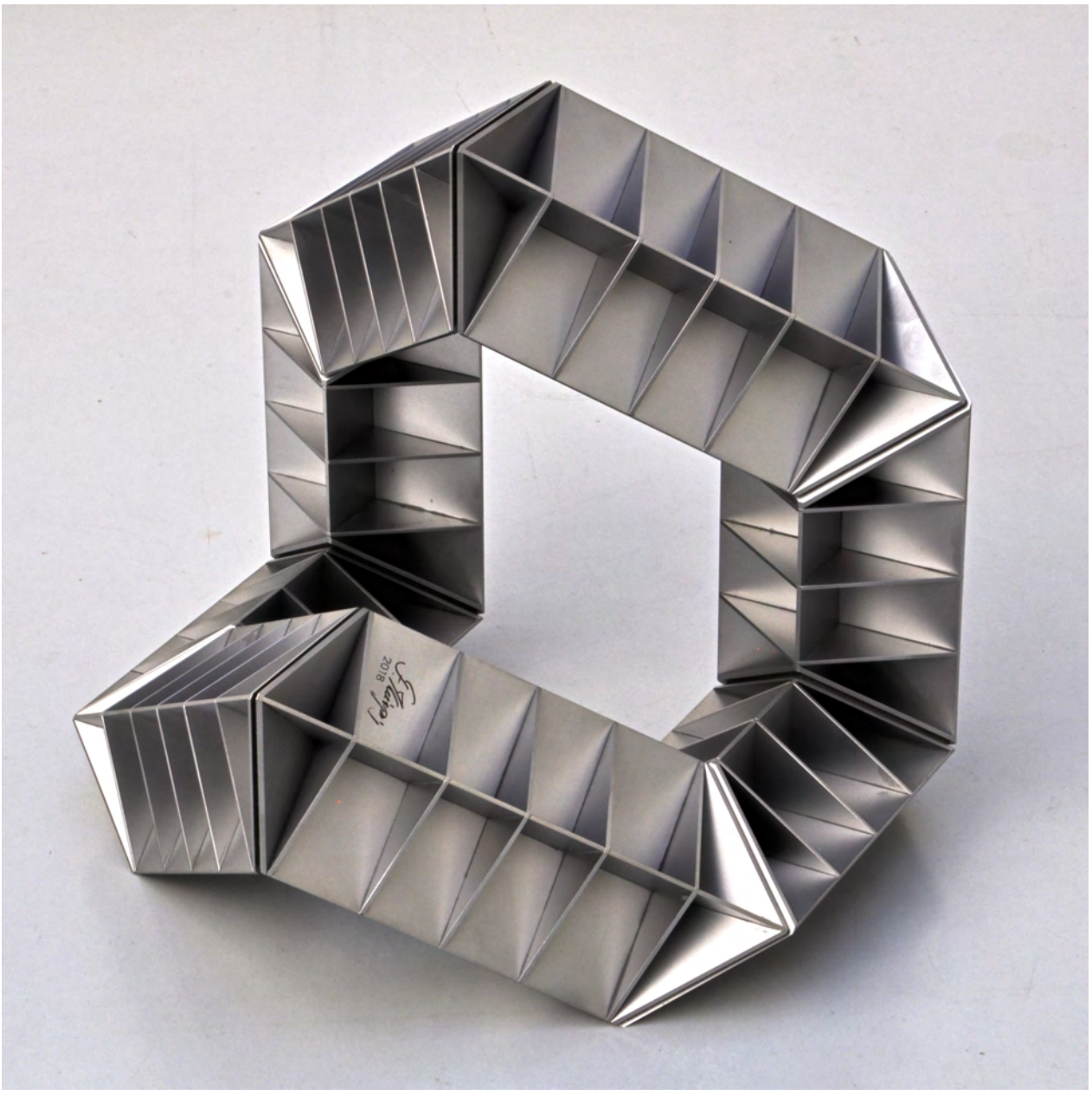


Figure 14: *Octagonal cycle for joint work (stainless steel).*

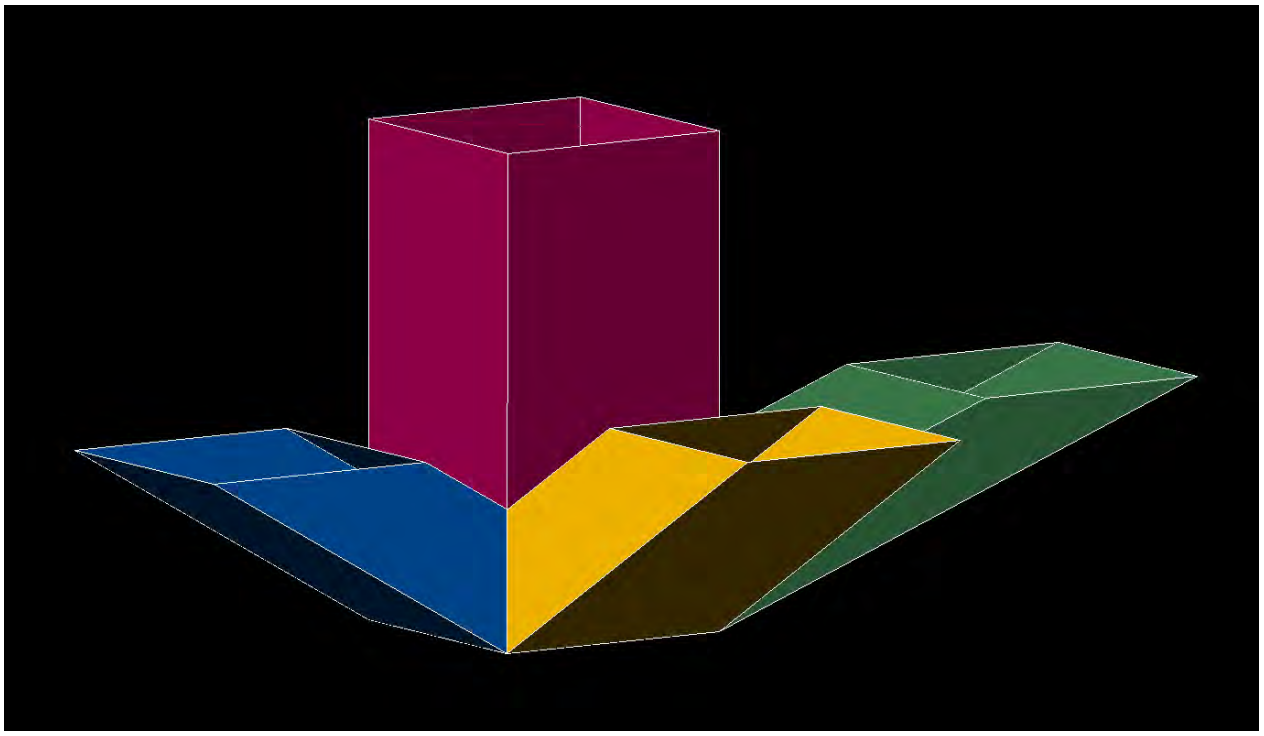
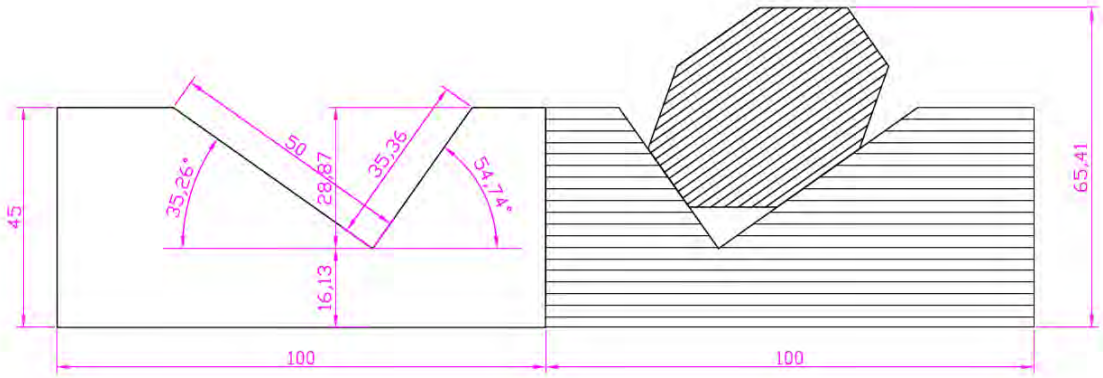


Figure 15: *Prisms with the same square cut face.*



Lade für Dicktenhobel

Figure 16: *Custom support bed for planing machine to create* $1 : \sqrt{2}$*-octagonal beams.*

Figure 17: *Three rings of prisms with different cross sections, each with order-3 rotational symmetry (left:* $1:\sqrt{2}$*-rectangular; center:* $1:\sqrt{2}$*-rhombic; right:* $1:\sqrt{2}$*-octagonal.*

Figure 18: *Decagonal cycle of* $1:\sqrt{2}$*-octagonal beams (oak wood).*

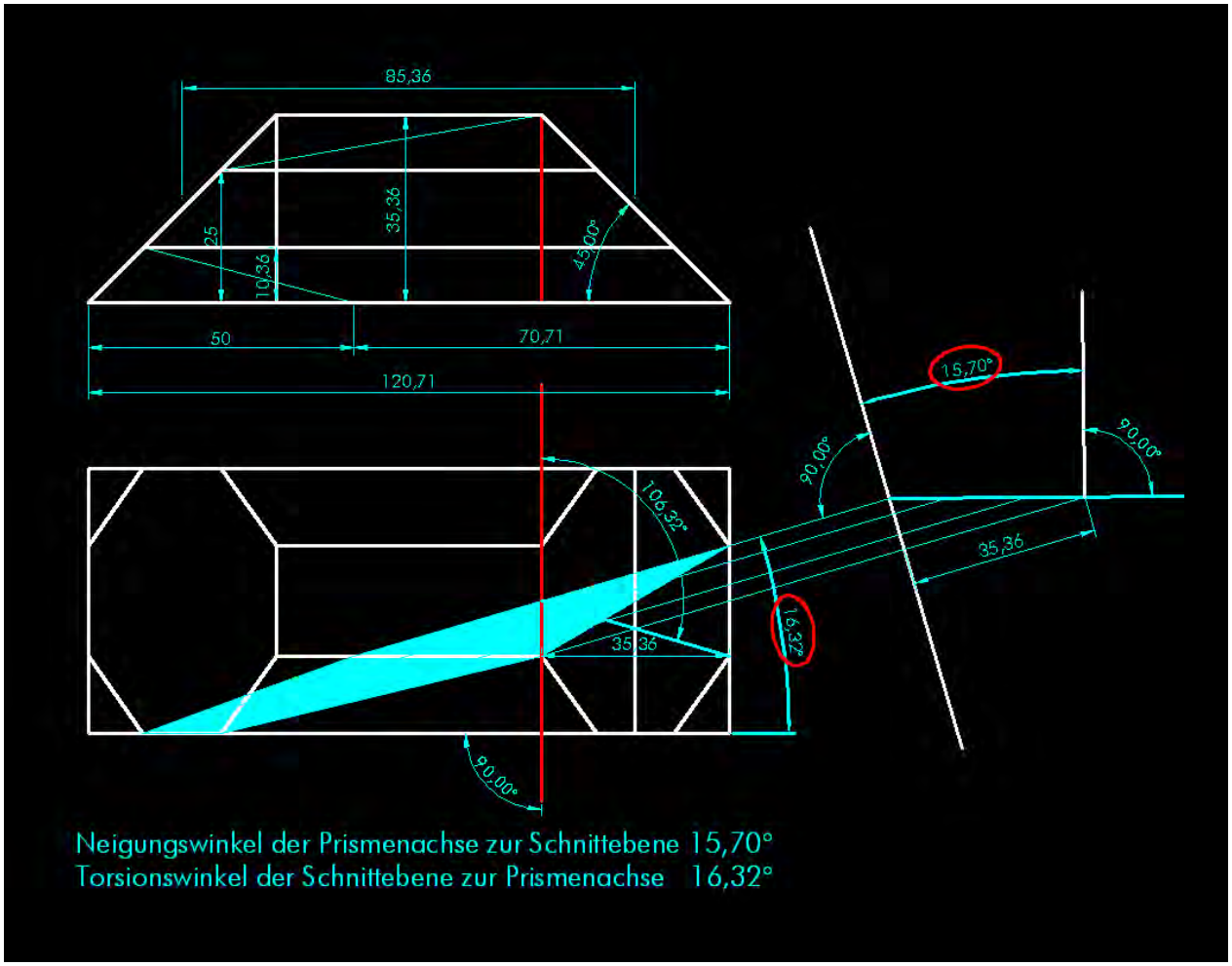


Figure 19: *Angles for V-piece from* $1 : \sqrt{2}$*-octagonal beam.*

Figure 20: *Milling machine with three-axis vise to create V-piece from* $1 : \sqrt{2}$*-octagonal beam.*

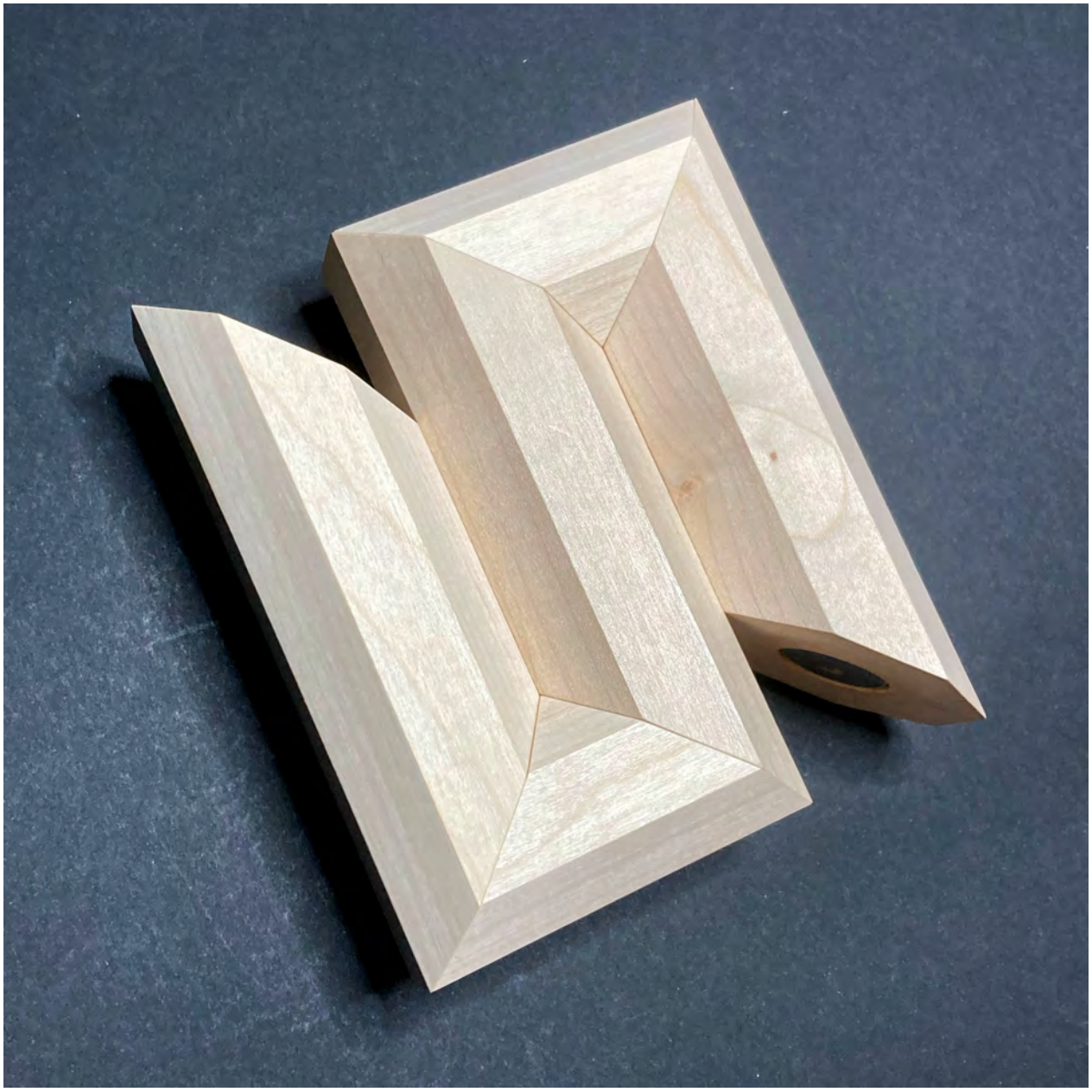


Figure 21: *Modular construction kit with magnetically joinable* $1 : \sqrt{2}$*-octagonal beams.*

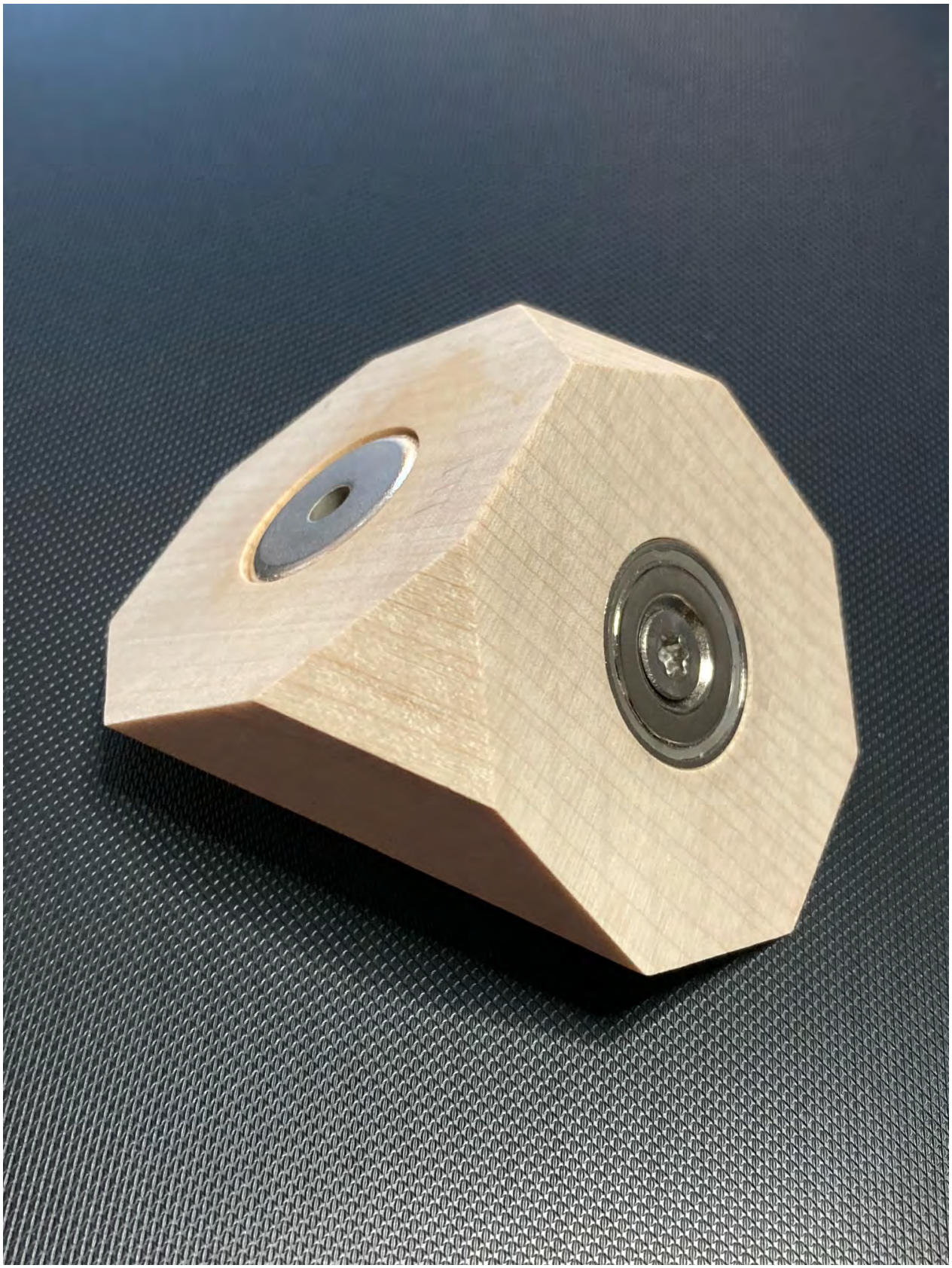


Figure 22: *Degenerate trapezoidal connector piece for* $1 : \sqrt{2}$*-octagonal beams.*