

MODUSTRUT™

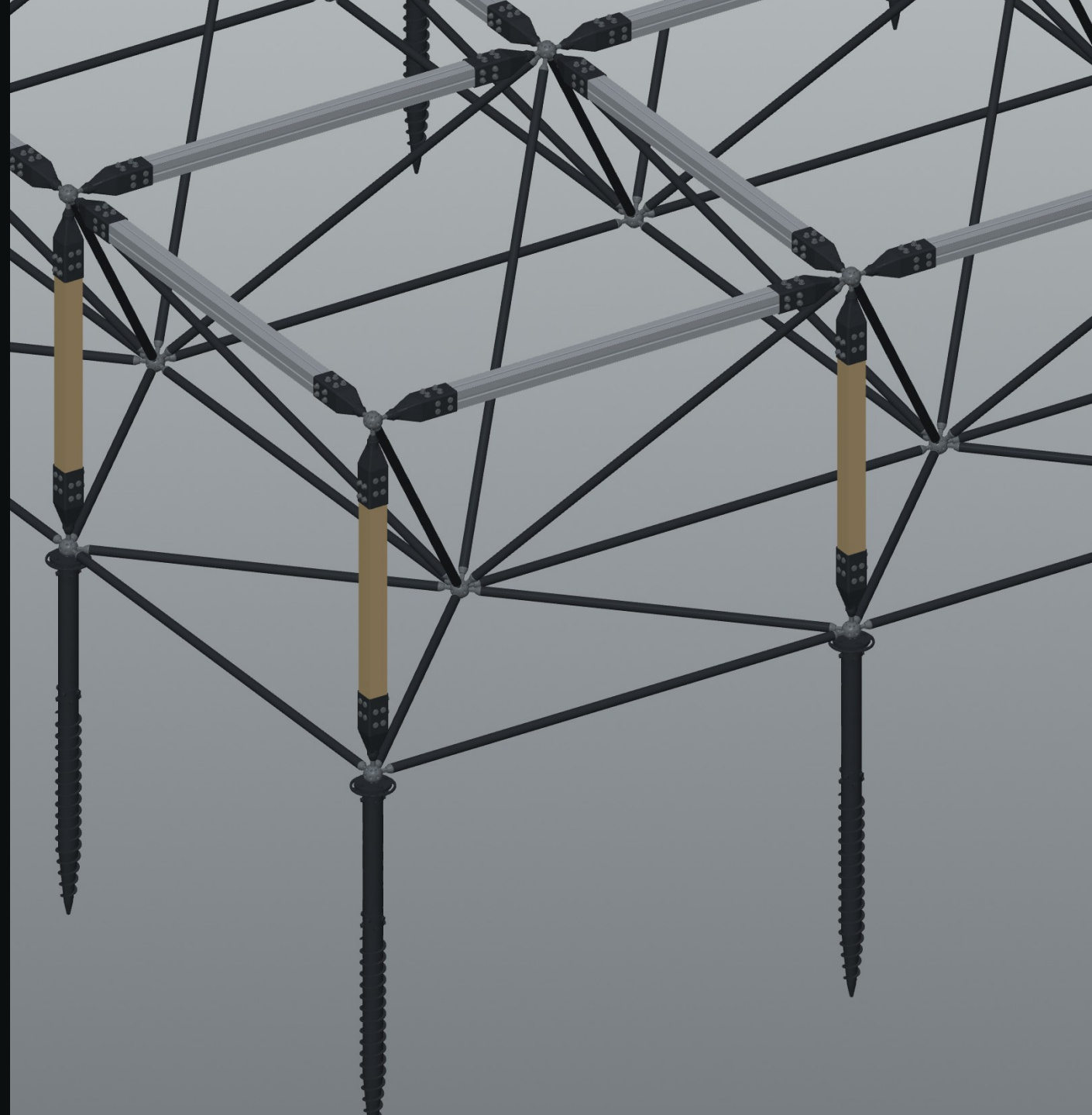
Universal modular structural system

Engineered connections for foundations, framing and façades.

ModuStrut™ is patent pending.

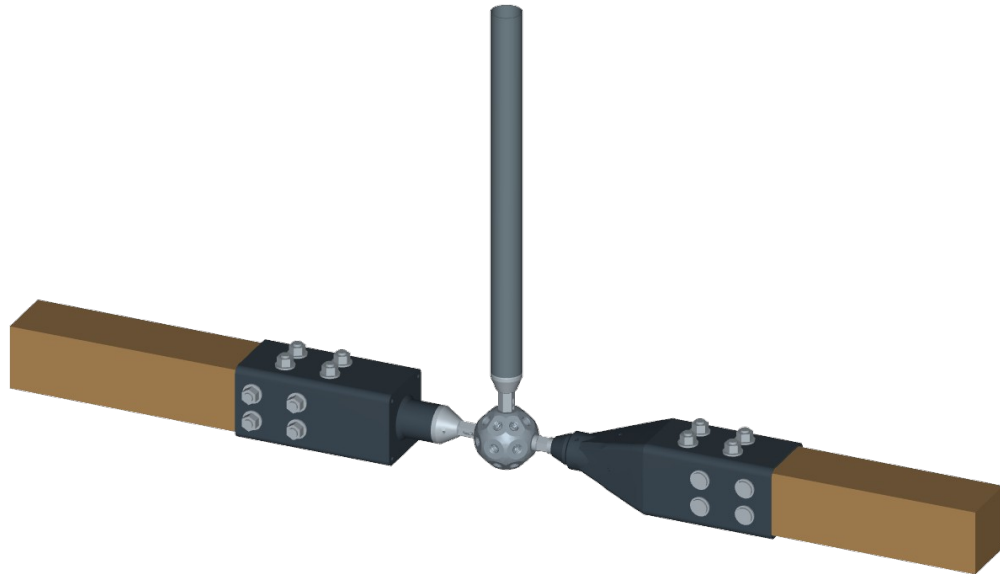
Roctanode™ connections
Strocket™ member interfaces

A Templewall product



ModuStrut components

System 1, V3 and prefabricated System 3 struts share the Roctanode interface. They can be combined within a single structure.



System 1 Strocket™

Straight receiver with an end plate and cone.

V3 Strocket™

Formed receiver with a tapered transition.

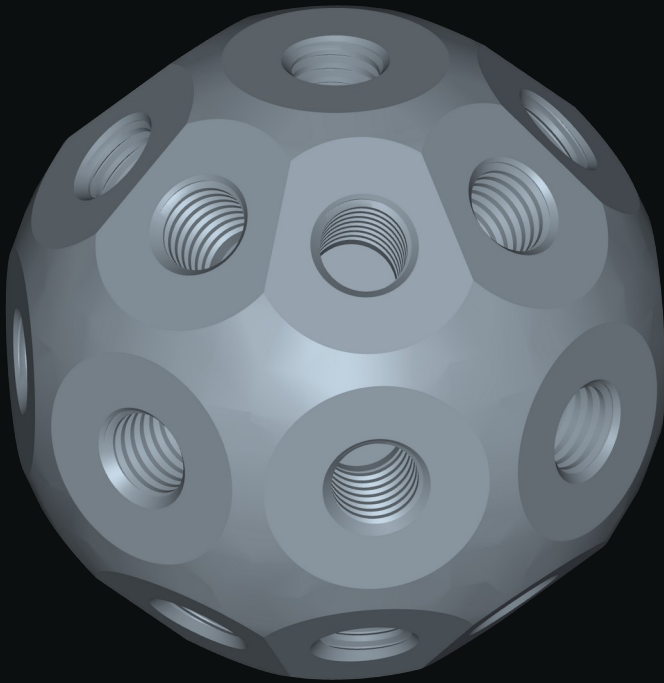
Prefabricated System 3

Space frame struts with factory-fitted end connections.

Roctanode™ provides the shared threaded connection.

Roctanode™: 26 connection directions

A single node coordinates orthogonal grids, diagonal bracing and spatial frames.

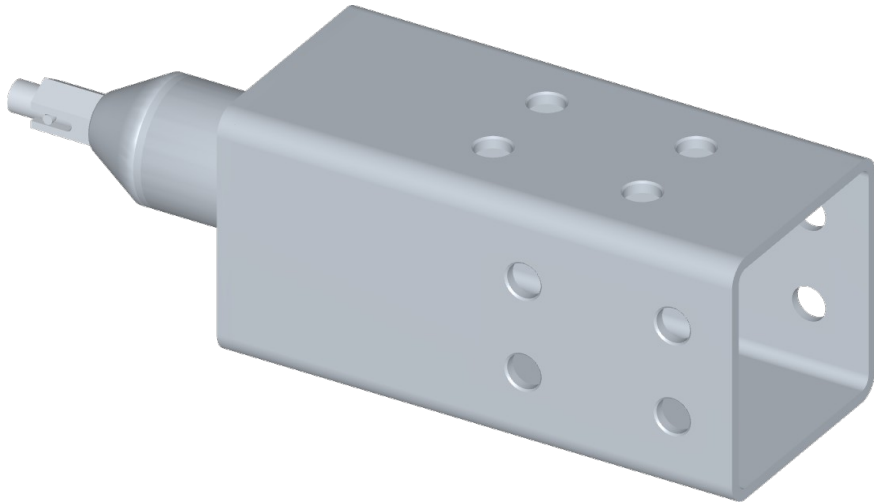


Direction family	Ports	Geometry
Axial	6	Three perpendicular axes
Planar diagonal	12	45° in the coordinate planes
Inclined diagonal	8	45° elevation over plan diagonals
Total	26	One shared node interface

Strocket™: System 1 and V3

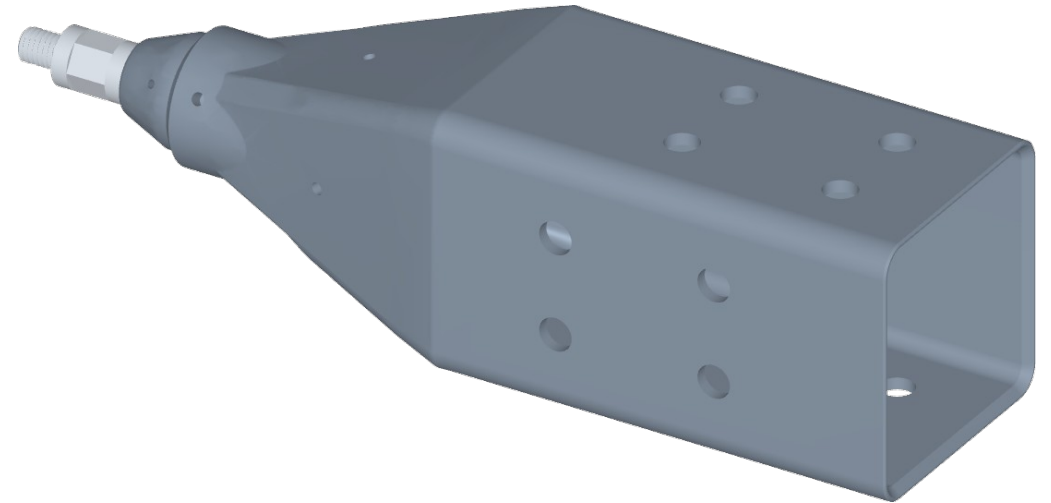
Two receiver designs connect structural members to the Roctanode.

System 1



Straight receiver with an end plate and cone connection. Standard and extended neck configurations.

V3

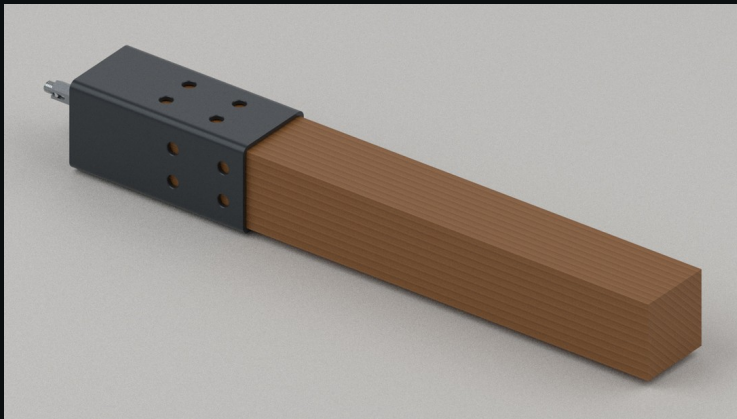


Formed taper between the square receiver and round node connection.

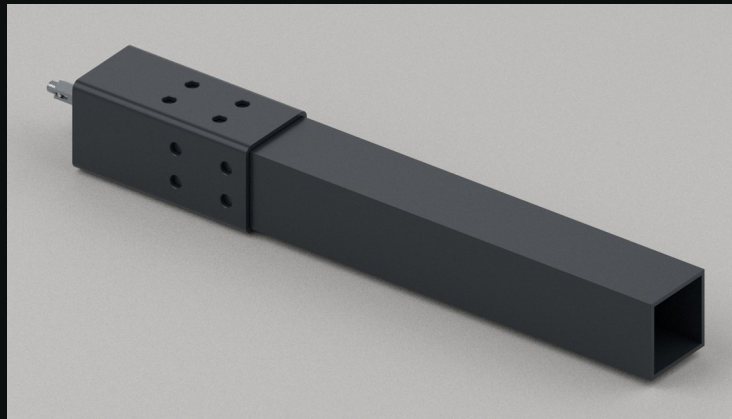
Strut materials

ModuStrut is strut material agnostic.

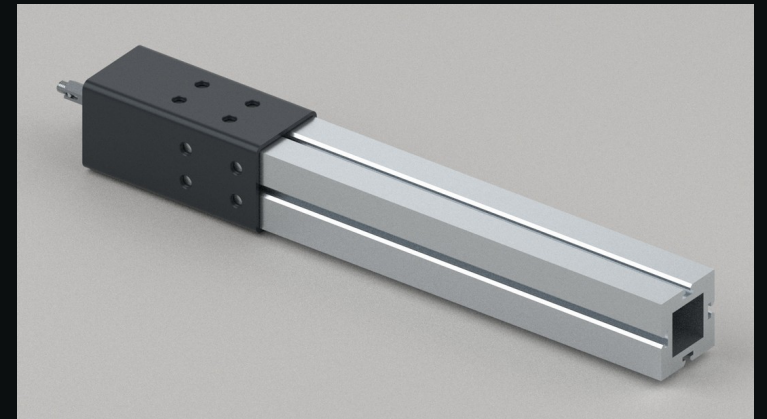
Members are selected for their loads, exposure, finish and fabrication method.



Timber connection



Steel connection

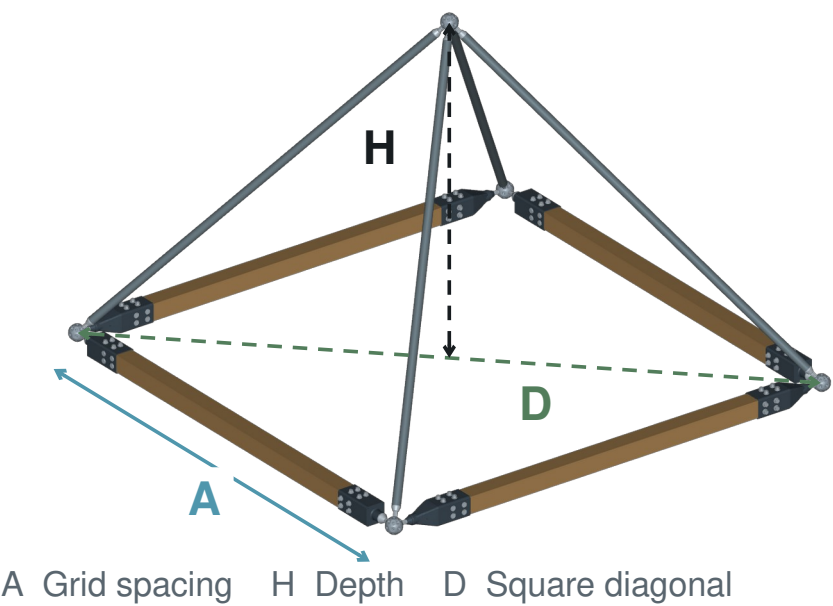


Aluminum extrusion connection

Timber, steel, aluminum, plastics, titanium, composites and other structural materials.

Module dimensions

Module dimensions run from node center to node center.
For a standard double-layer grid, depth $H = A / \sqrt{2}$.



Grid A (ft)	$H = A / \sqrt{2}$ (ft)	$D = A \times \sqrt{2}$ (ft)
6.00	4.24	8.49
8.00	5.66	11.31
10.00	7.07	14.14
12.00	8.49	16.97

Member cut length = node-center length – connection offsets at both ends.

Standard double-layer grid

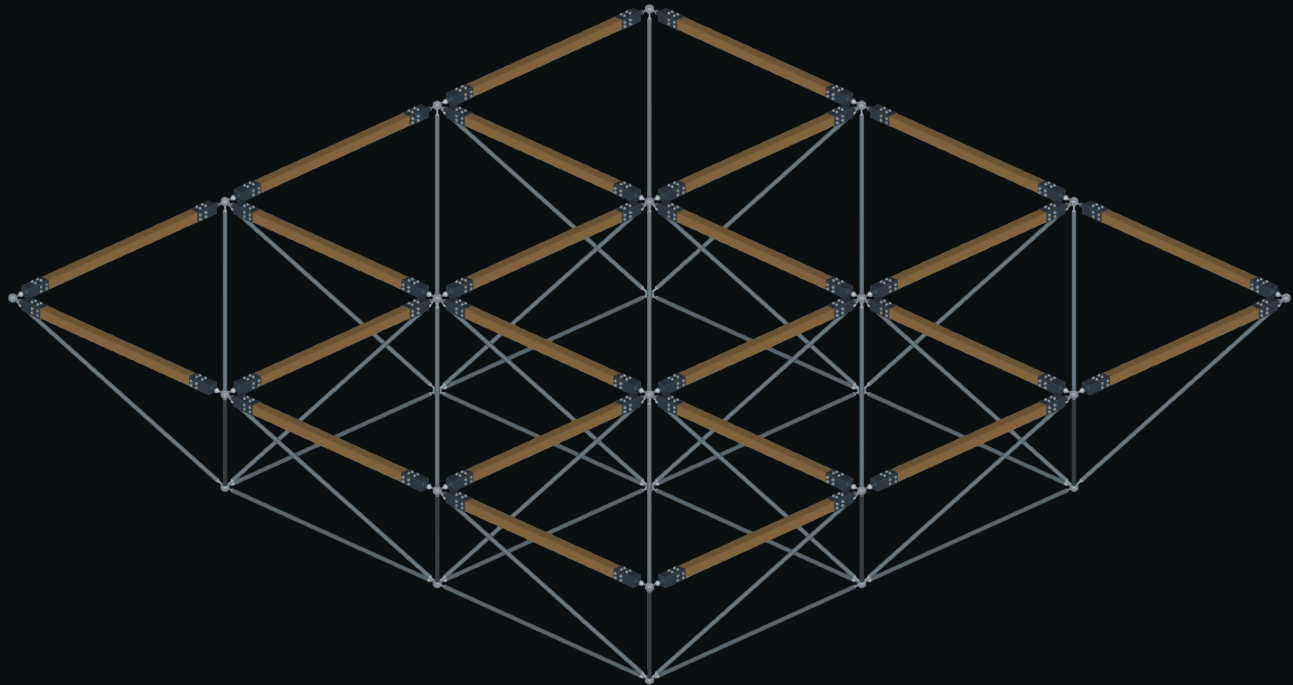
Offset square grids connect through a repeating pyramid web.

System 1 example

Top chords, bottom chords and web struts share node-center length A .

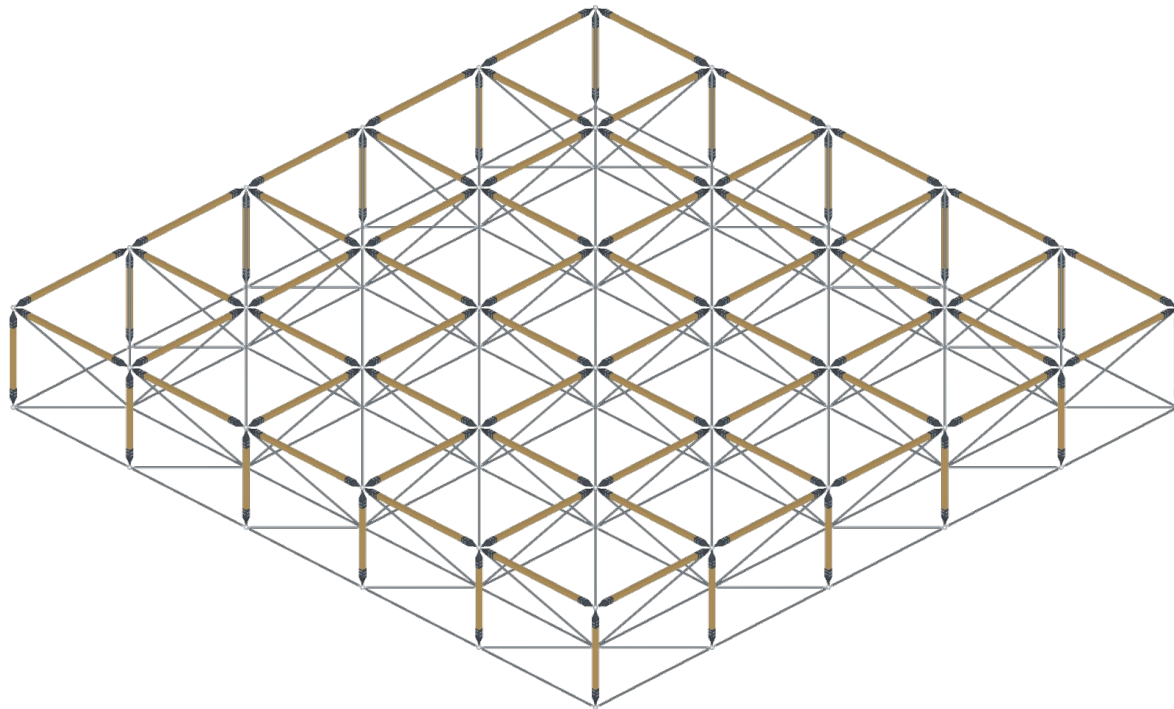
Frame depth $H = A / \sqrt{2}$.

Prefabricated System 3 struts form the webs and bottom chords.



Square-edge framing

Perimeter members form a box edge around the double-layer grid.



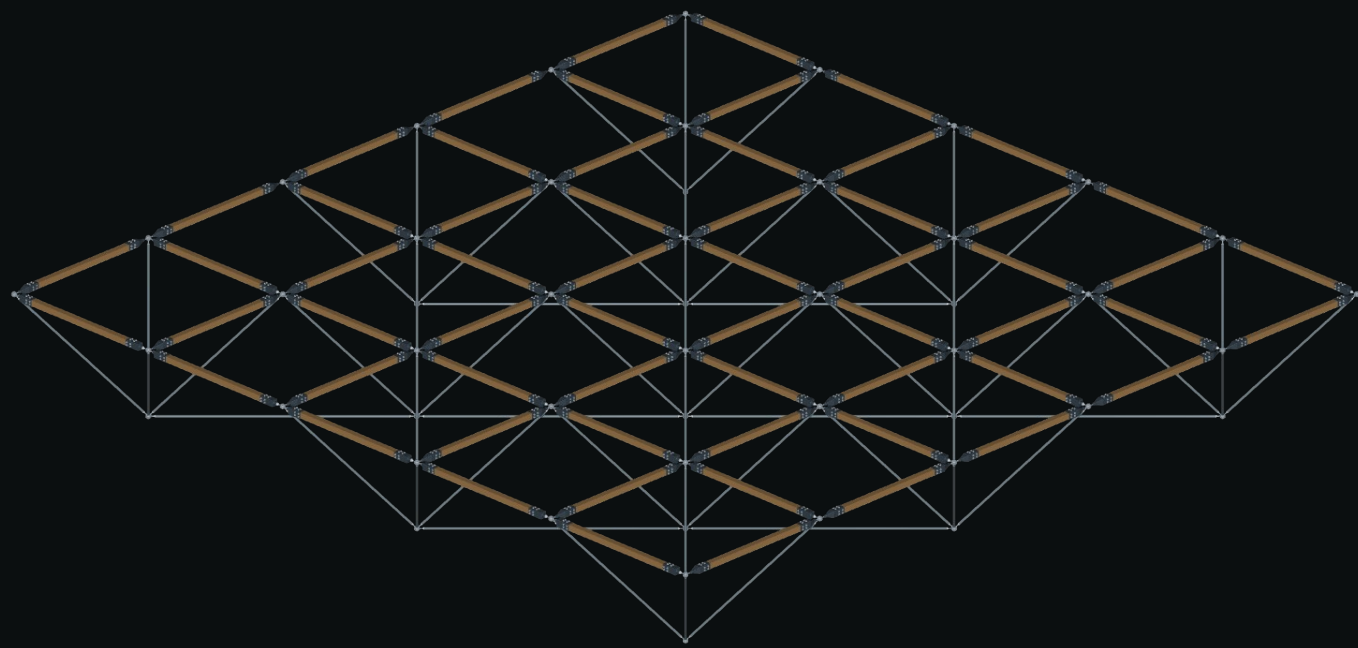
V3 example

Boundary verticals and framing close the edge for decks, platforms and building interfaces.

Prefabricated System 3 struts form the webs and bottom chords.

Alternating grid

System 1 and V3 top chords combine with prefabricated System 3 web struts.



Element	Node-center length
Top chords	A
Web struts	A
Bottom diagonals	$A \times \sqrt{2}$
Frame depth H	$A / \sqrt{2}$

Joined pyramid modules

Two pyramids connect through a shared Roctanode at their apex.

Three systems in one assembly

System 1 and V3 form the square frames.
Prefabricated System 3 struts connect both frames to the central node.

Each pyramid has depth $H = A / \sqrt{2}$.

Square edge	Overall depth
A	$A \times \sqrt{2}$



Quick material counts for a standard grid

For $n \times m$ bays in the standard double-layer grid:

Members = $8nm$

Nodes = $(n + 1)(m + 1) + nm$

Top-grid bays	Nodes	Top chords	Bottom chords	Web struts	All members
2×2	13	12	4	16	32
3×3	25	24	12	36	72
4×4	41	40	24	64	128
6×5	72	71	49	120	240

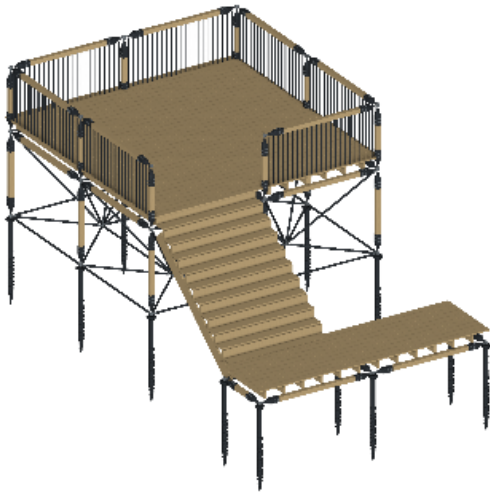
Two end connections per member. Count perimeter framing and application hardware separately.

SpaceDeck™, SpaceRaft™ and SpaceSlab™

Universal modular structural framing

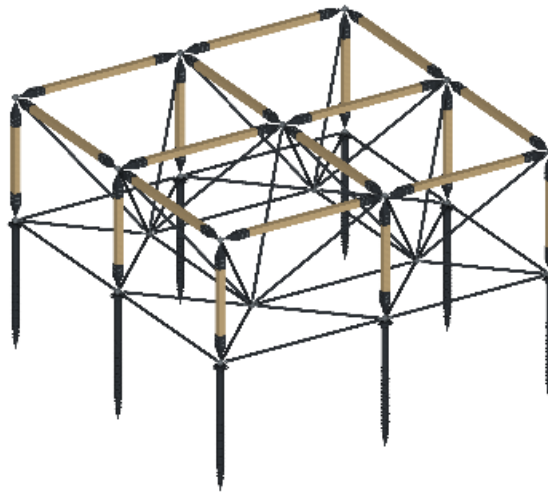
The illustrations use prefabricated System 3 struts in the webs and bottom chords.

SpaceDeck™



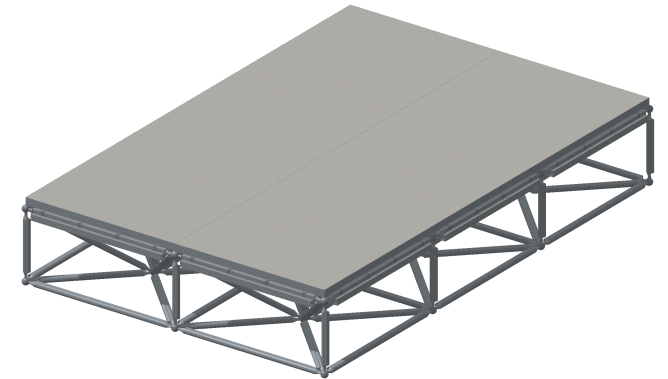
Modular framing for decks and elevated platforms.

SpaceRaft™



Modular framing for decks, floors, roofs, walls, awnings and canopies.

SpaceSlab™



SpaceRaft™ with removable concrete form pans for slab applications.

ModuStrut building frames

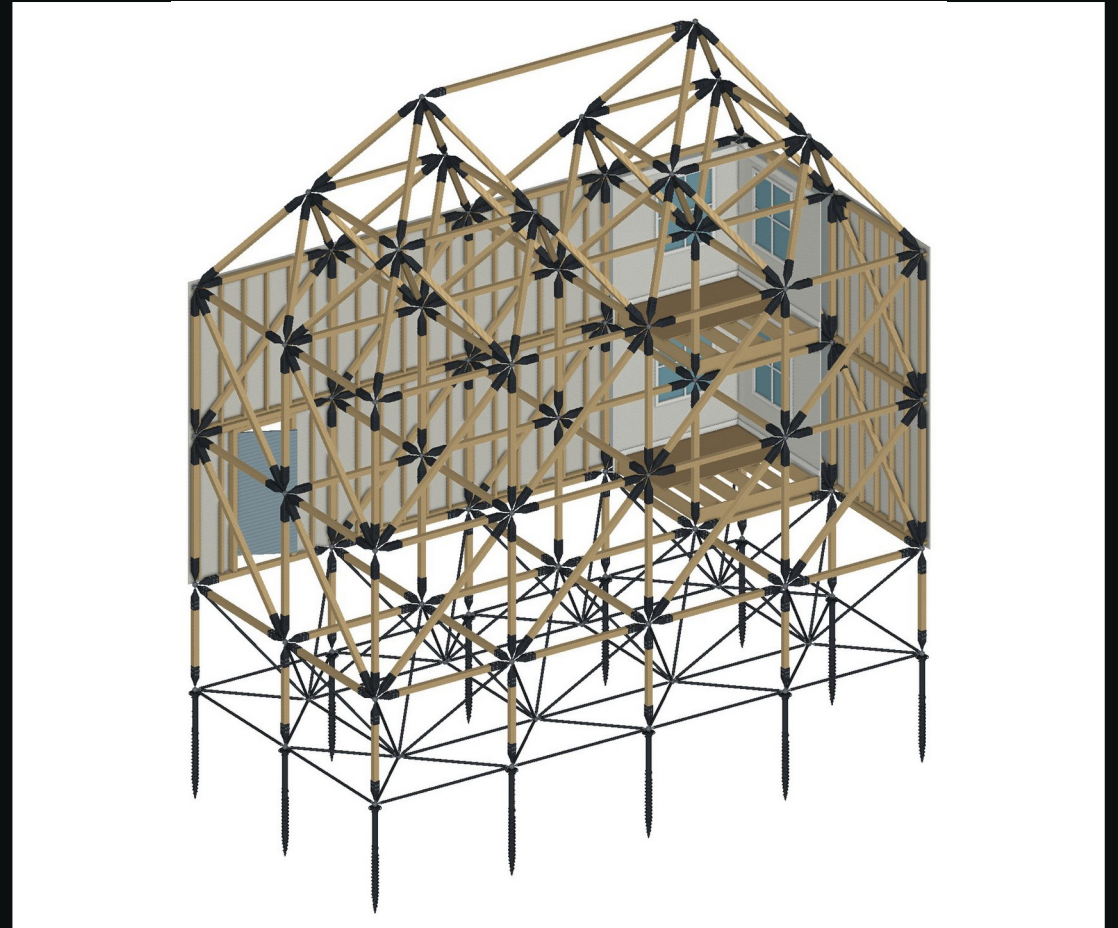
Universal engineered modular components for foundations, framing and façades.

Structural components

The connection family joins columns, beams, roof framing and façade supports.

SpaceRaft™ base

The SpaceRaft™ base uses prefabricated System 3 space frame struts in its webs and bottom chords.



MODUSTRUT™

Universal modular structural framing.

Strut material agnostic.

ModuStrut™ is patent pending.

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