

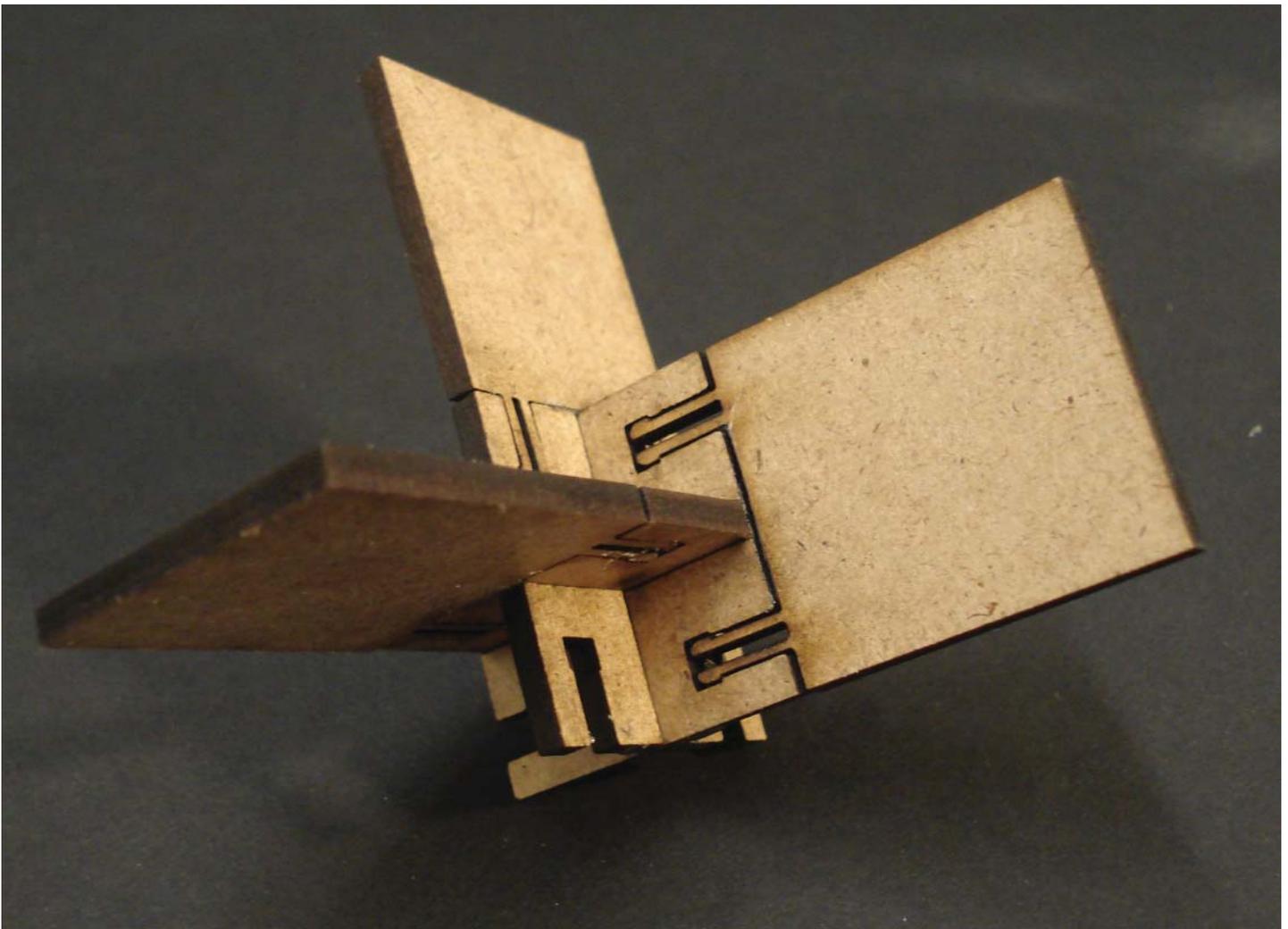
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4.510 Digital Design Fabrication
Fall 2008

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4.510 - Digital Design Fabrication Assignment #5

Design Summary - We investigated using a two prong clip joint for both the warm-up exercise and the panel construction design. After a series of mock ups, we made several design changes before constructing our final prototype. Initially, our joint was about half the length and used a different assembly procedure, but we learned that a longer profile was more flexible and a larger hole would be required to rotate the pieces within each other.

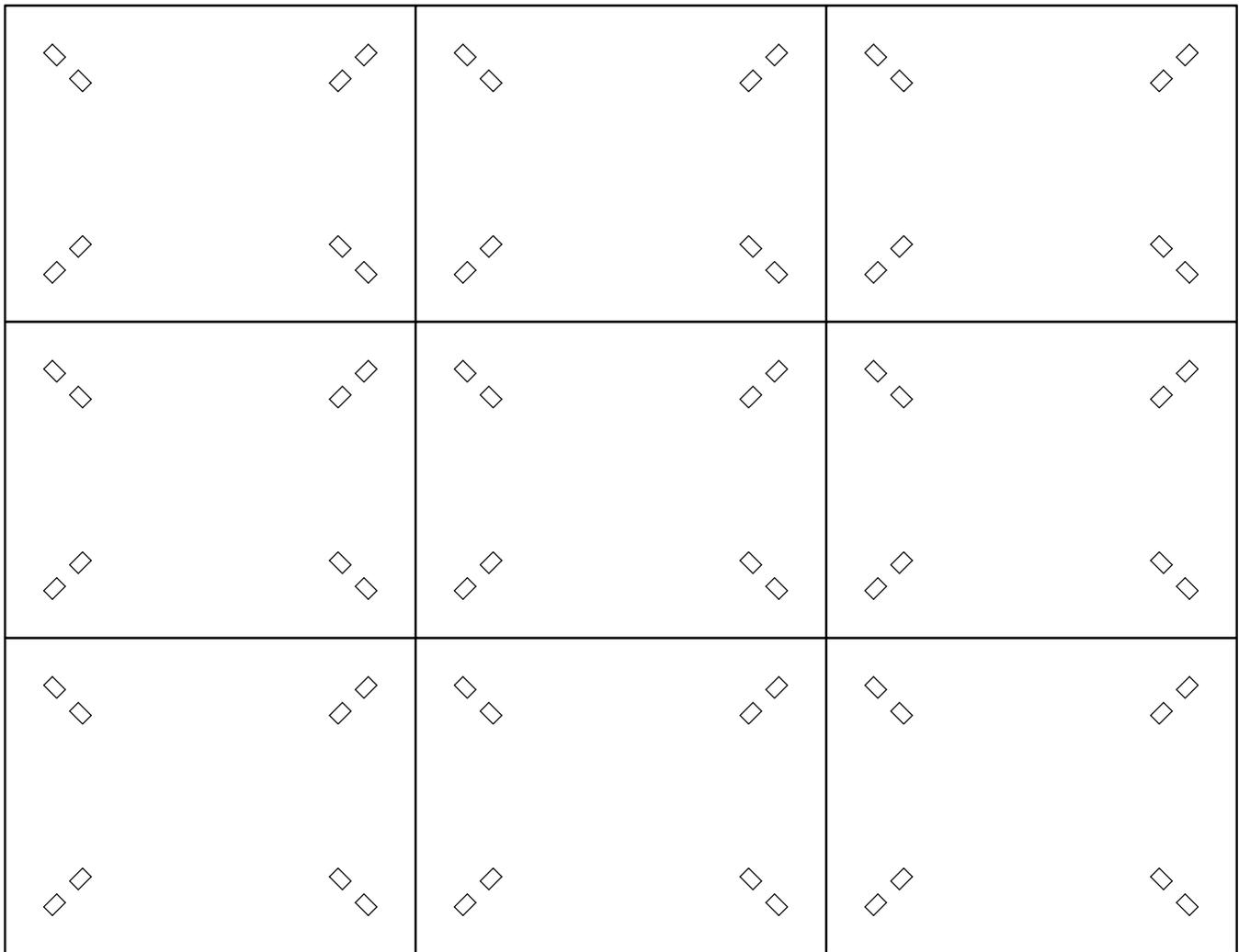


Warmup - Snap-fit Joint

Two prong snap ensured a snug fit.

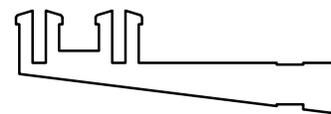
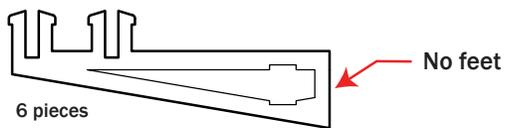
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Cut Sheets:

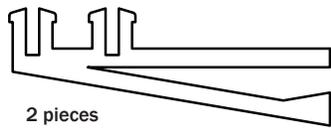
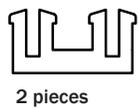


Scale 1:2A

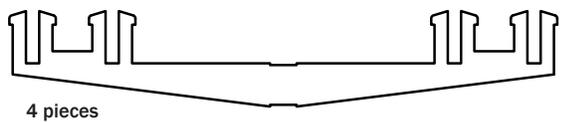
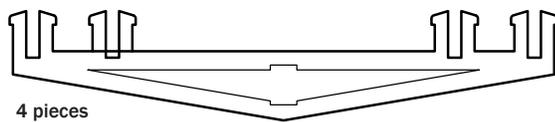
Top and side interior joints



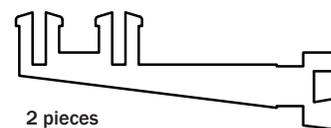
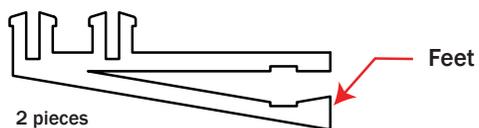
Top and bottom coner joints



Center interior joint



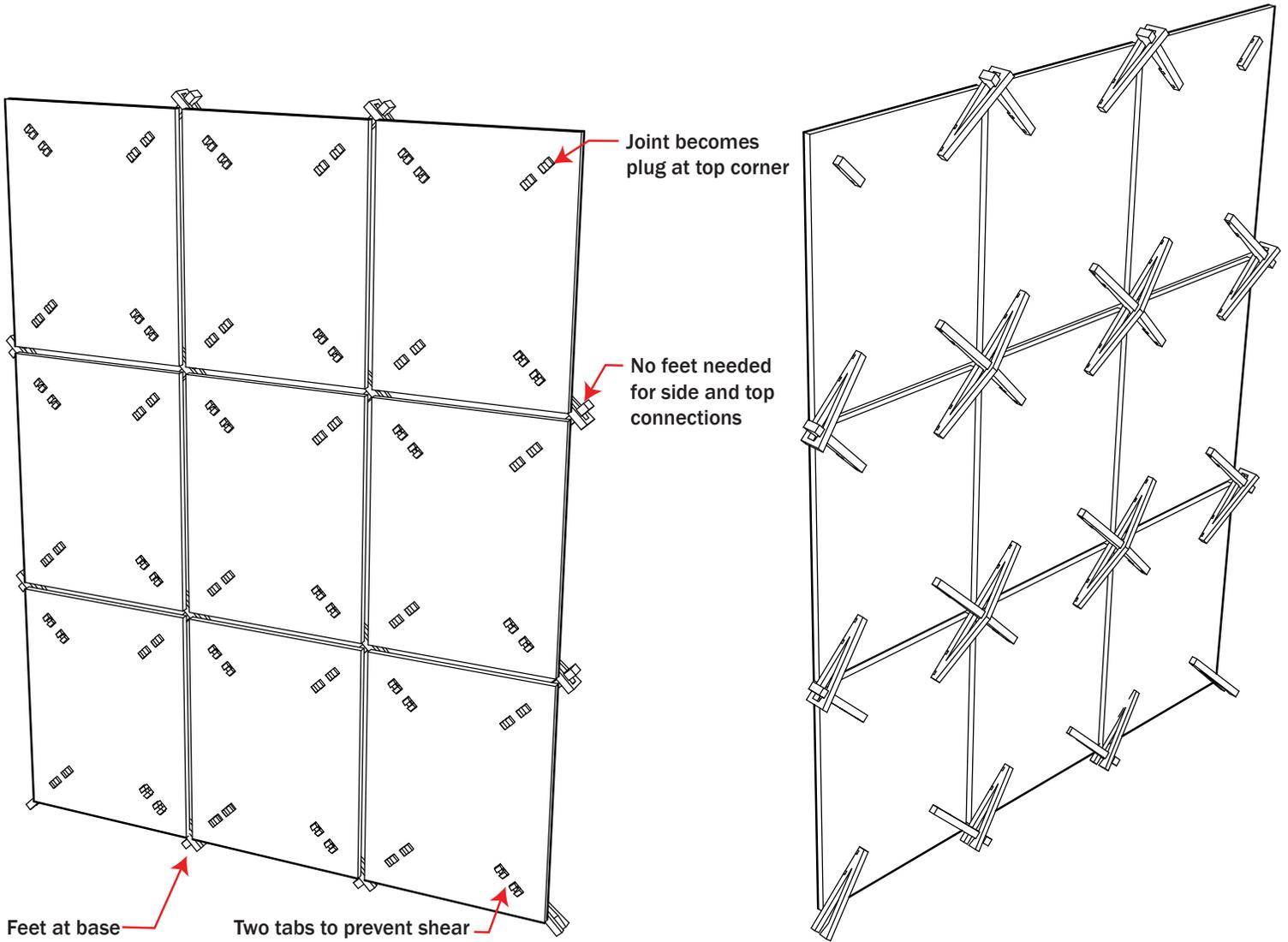
Bottom interior joint



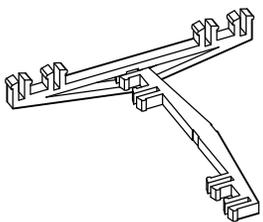
Scale 1:A

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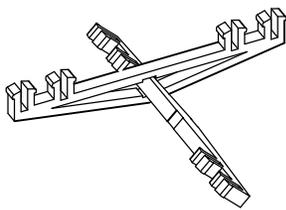
Wall Joint Conditions:



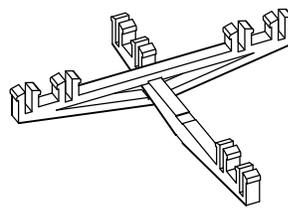
Design based on Assembly Requirements:



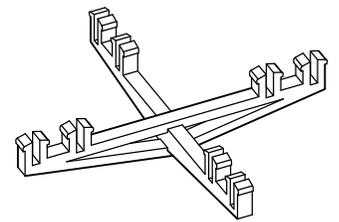
Gap to fit snap-fit heads



Narrow neck for rotation

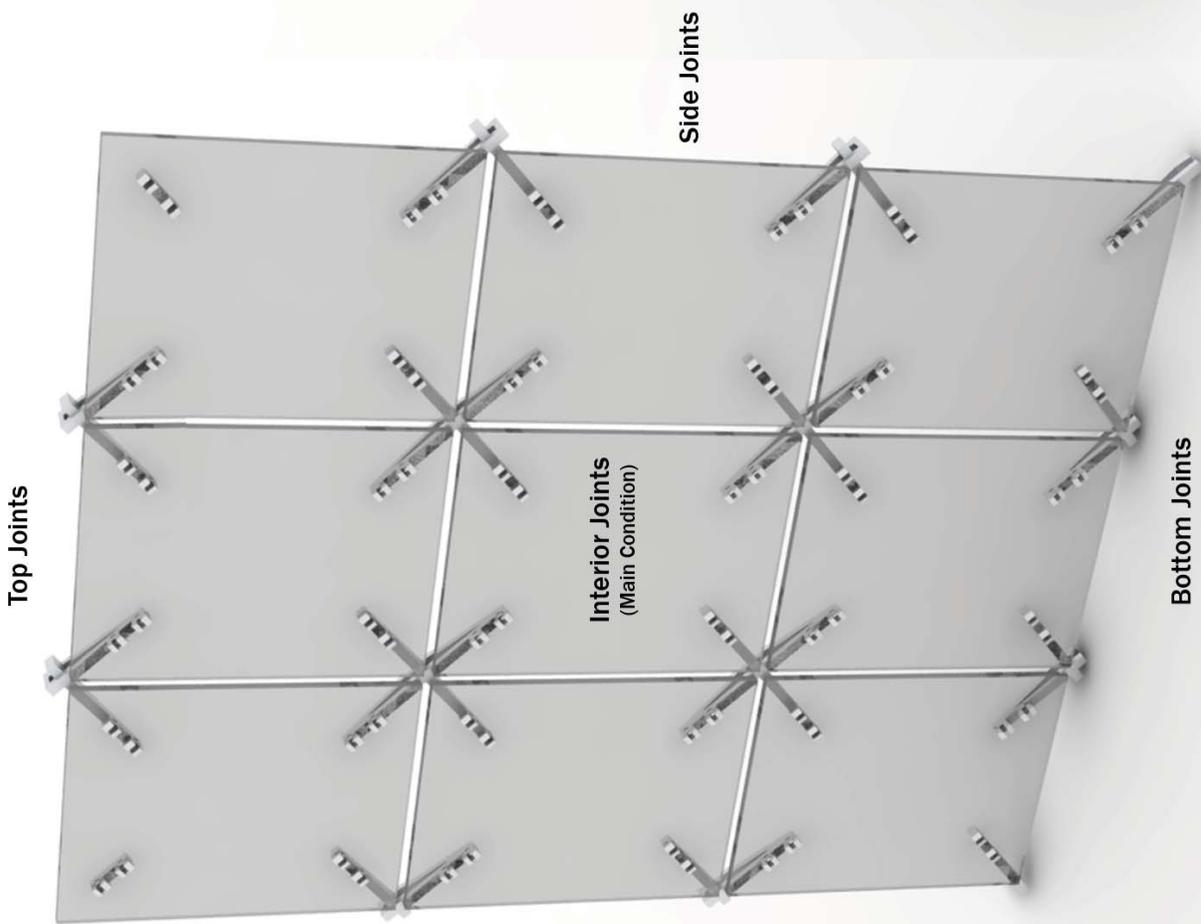
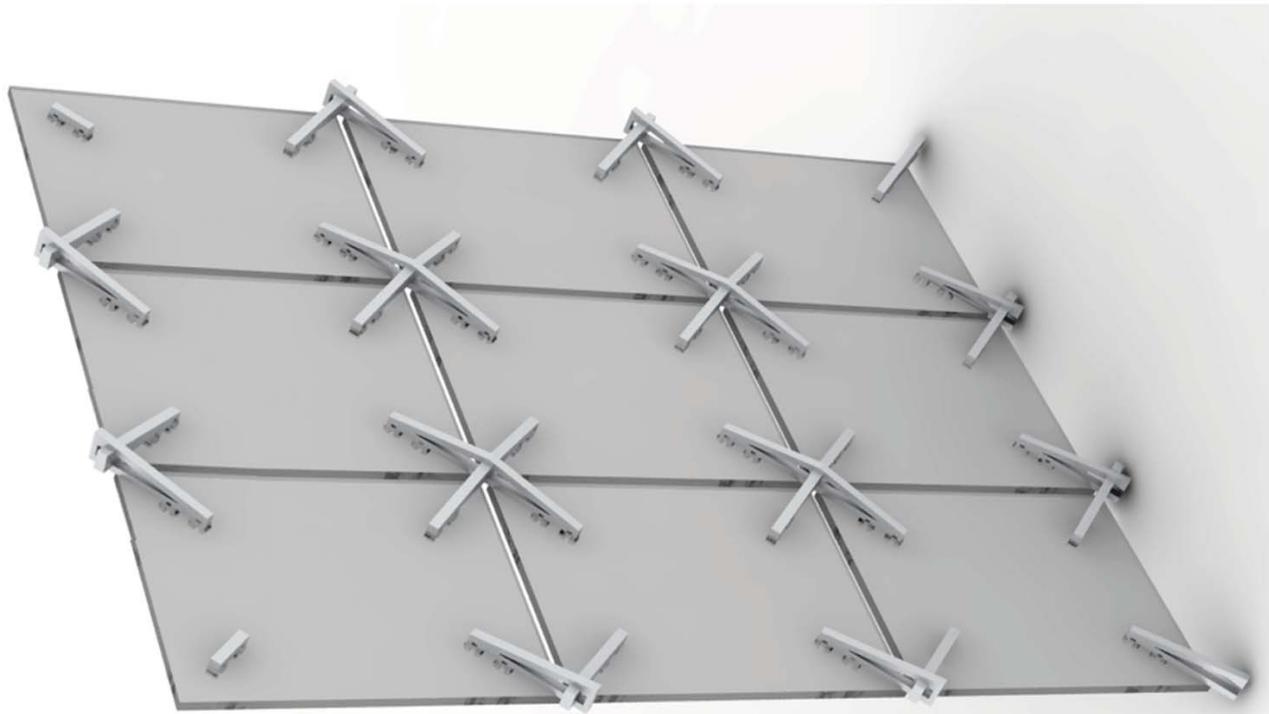


Thin enclosure for bending

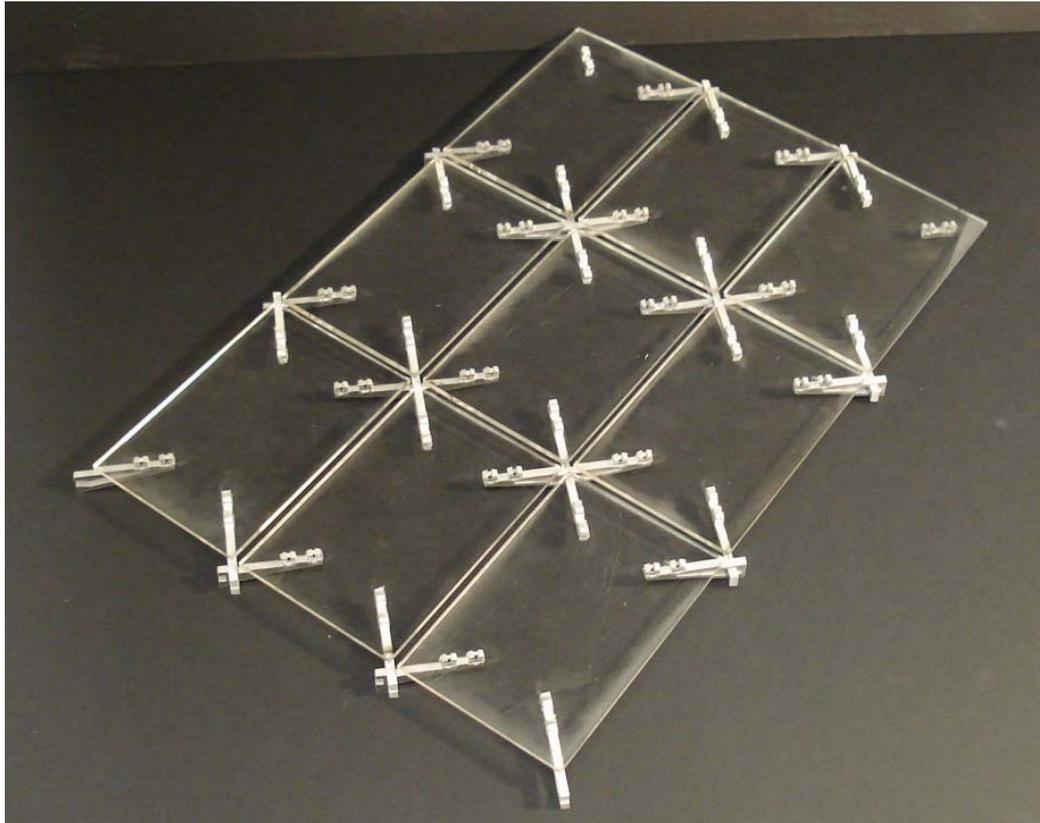


Enclosure tabs to hold in place

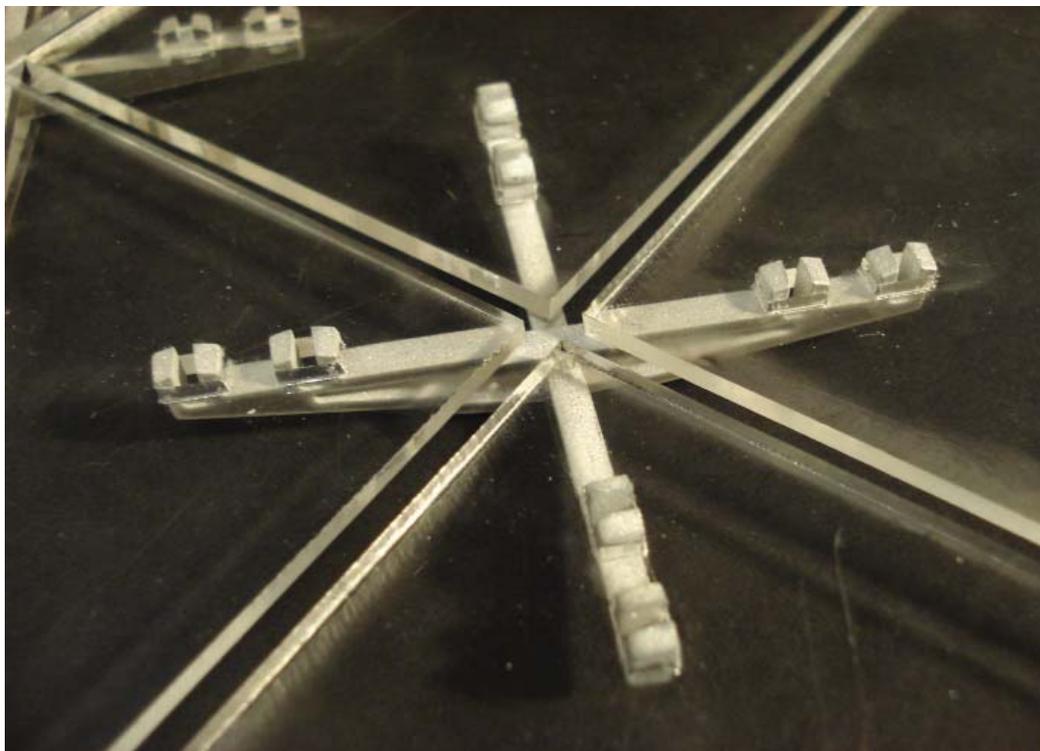
Final Wall Construction:



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Final Design



Joint Detail