

Re: DIY space transport

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- *From:* Joe Strout <joe@xxxxxxxxxx>
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In article <gYCdnYcpZaL480rfRVn-vw@xxxxxxxxxx>, "Frank Scrooby" <X@xxxxxxxx> wrote:

> Can you build a DIY spacestation in 2-ton blocks?

This is something I've thought about quite a bit. I believe you can, by producing a number of modules that are specialized in purpose and interior but all have basically the same shape and attachments. The standardized airlock attachments would also have standard ports for plumbing and wiring. Each would be about the size of a minivan; not roomy, but good enough for pioneers.

One module -- probably the most complex and expensive one -- would be a self-supporting mini-station, able to sustain a person for (say) a week, as well as maintain its own orbit for a few months before refueling. It's little more than a small LEO satellite. It would also be cramped as hell, probably have only one small window (if that), and not a very pleasant place to stay. But it gets you started (and provides a retreat if things go wrong elsewhere on the station).

Then you start adding more specialized modules, which might include:

- power module: unfolds big solar panels once on orbit
- propulsion module: provides more control authority
- observation module: lots of windows
- bathroom module: provides a 0-G toilet and shower (luxury!)
- environmental control module: provides scrubbing/recycling and air conditioning enough for, say, a dozen modules
- connection module: basically just a corridor with 4 or 6 airlocks
- inflatable module: expands to a greater volume once on orbit

and so on. On every launch, you would bring one of these with you, bolt it on at an appropriate place, and leave it there when you return. Of course there are complications, for example, station-keeping may be challenging when your center of mass and moments of inertia keep changing. But I think those could be overcome with careful planning.

I've imagined a sort of "time sharing" setup where, say, 52 millionaires get together in a club to share such a growing space station. Each week

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one of them launches with a new module plus consumables, putters about in orbit for a week, and then comes back down. Next year he gets to do it again, on a much bigger facility.

It would be a pretty cramped, habitrail-like space station, to be sure. But I think it could work.

| Joseph J. Strout Check out the Mac Web Directory: |
| joe@xxxxxxxxxx <http://www.macwebdir.com> |

• *Follow-Ups:*

- ◆ **Re: DIY space transport**
◇ From: Hop David
- ◆ **Re: DIY space transport**
◇ From: George William Herbert

• *References:*

- ◆ **DIY space transport**
◇ From: Pete Lynn
- ◆ **Re: DIY space transport**
◇ From: Derek Lyons
- ◆ **Re: DIY space transport**
◇ From: Len
- ◆ **Re: DIY space transport**
◇ From: Martha H Adams
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