

Kerbal Space Program - Bug #22766

Docking landed on Minmus with robotics parts teleports vessels, ripping them apart.

06/04/2019 10:08 AM - Madrawn

Status:	Confirmed	Start date:	06/04/2019
Severity:	Low	% Done:	10%
Assignee:			
Category:	Physics		
Target version:			
Version:	1.7.1	Language:	English (US)
Platform:	OSX, Windows	Mod Related:	No
Expansion:	Breaking Ground, Core Game, Making History		

Description

When I extend the piston to make the connection between 2 docking ports the second vessel suddenly teleports behind my vessel upon successful docking ripping both vessels apart in the process. I see a short "physics easing" message, but disabling it in the settings, the message still appears and behavior isn't different.

See the save in the attachment. Just extend the piston and watch. Pay attention to the single docking port clipped in the command pod afterwards, which you can undock although it isn't connected to anything, leading to it spinning away.

History

#1 - 06/30/2019 02:05 AM - 18Watt

- Status changed from New to Confirmed

- % Done changed from 0 to 10

- Platform OSX added

I'm seeing similar behavior on OSX, with Breaking Ground (and Making History).

My attempts have involved two vessels on the ground. One is a 'stationary' landed vessel with docking ports. The other is a 'rover', which is mobile using wheels. I'm using (stock) robotic parts to facilitate docking.

On the 'rover', I have a CanadArm style assembly, which consists of Servo, Hinge, Piston, Hinge. At the end of the last hinge is a docking port, which I'm trying to dock with the stationary, 'landed' vessel.

What happens: When the 'rover's' robotic arm and docking port attach to the docking port of the other vessel, the two ports appear to try to line up with one port 'flipped' 180 deg. This ends up violently flipping the lighter vessel. Usually one vessel ends up clipped inside the other vessel. On low G bodies (Minmus) the process usually has enough energy to send one or both vessels flying and tumbling.

#2 - 06/30/2019 05:04 PM - 18Watt

- File screenshot0.png added

- File screenshot4.png added

- File screenshot6.png added

- File screenshot7.png added

- File screenshot15.png added

- File screenshot16.png added

Adding screenshots.

I've tried reducing servo, hinge, and piston motor strength to the lowest settings.

#3 - 06/30/2019 08:01 PM - 18Watt

- File screenshot17.png added

- File screenshot18.png added

- File screenshot19.png added

Did some more testing, using simpler vehicles.

In attempt 1, I attached Dock Port Jr.'s to hinges on the ends of the vessel. The hinges were initially aligned for docking. This test was successful, no docking issues.

In attempt 2, I attached the same Dock Port Jr.'s to the same hinges, but this time the hinges were not initially aligned for docking. I needed to rotate the hinge(s) 90 deg. to dock. This resulted in the following bizarre results:

- The vessels lurched violently during docking.
- The docking ports were 'joined', however their alignment was not correct, roughly 90 deg. off.
- After undocking, one Dock Port Jr.'s attachment to it's hinge is now 90 deg. off, appears to have permanently changed the geometry of the pair.

One guess is that after docking, the docking port tries to orient itself how it was when the vessel was launched.

#4 - 06/30/2019 08:04 PM - 18Watt

- File screenshot20.png added
- File screenshot21.png added
- File screenshot22.png added

More screenshots.

Files

bug.zip	139 KB	06/04/2019	Madrawn
screenshot0.png	1.1 MB	06/30/2019	18Watt
screenshot4.png	744 KB	06/30/2019	18Watt
screenshot6.png	979 KB	06/30/2019	18Watt
screenshot7.png	628 KB	06/30/2019	18Watt
screenshot15.png	965 KB	06/30/2019	18Watt
screenshot16.png	1010 KB	06/30/2019	18Watt
screenshot17.png	919 KB	06/30/2019	18Watt
screenshot18.png	971 KB	06/30/2019	18Watt
screenshot19.png	919 KB	06/30/2019	18Watt
screenshot20.png	835 KB	06/30/2019	18Watt
screenshot21.png	1.02 MB	06/30/2019	18Watt
screenshot22.png	750 KB	06/30/2019	18Watt