

Kerbal Space Program - Bug #28141

New friction values make landing legs slide on any small slope

07/01/2021 06:35 AM - MarlusKeep

Status:	New	Start date:	07/01/2021
Severity:	Low	% Done:	0%
Assignee:			
Category:	Physics		
Target version:			
Version:	1.12.0	Language:	English (US)
Platform:	Windows	Mod Related:	No
Expansion:	Core Game		

Description

Please fix the friction values for landing legs, cause they start to slide on any slope now.

My suggestion is to make the friction control options available to landing legs too, not just for the wheels.

I made this video for you guys understand whats happening.

<https://youtu.be/tlCK92TMPwg>

History

#1 - 07/01/2021 07:09 AM - JPLRepo

Can you attach save files / craft files. That speeds up the process greatly.

#2 - 07/01/2021 07:16 AM - Anth12

I have some good locations from my wheels bug report. I will do some.

#3 - 07/01/2021 07:41 AM - Anth12

- File 1112 quicksave.sfs added

KSP 1.11.2 + BG + MH

KSP 1.12.1 + BG + MH

"1112 quicksave.sfs" doesn't move on Ike in 1.11.2 but does in 1.12.1

This feels exactly the same as [#28108](#) with wheels.

The major issue here is that friction cant be adjusted like it can be with wheels. There's no way to counter this issue other than to not use landing legs on slopes

Confirmed. I will do a few more tests though

#4 - 07/01/2021 09:18 AM - Anth12

- File 28141 Different Locations.sfs added

- File LT-1 Landing Strut Big Craft.craft added

- File LT-2 Landing Strut Big Craft.craft added

- File LT-2 Landing Strut.craft added

- File LT-05 Smaller Craft.craft added

- File screenshot220.png added

"28141 Different Locations.sfs" has crafts with landing legs in multiple locations

But what I found interesting is Minmus where there's three crafts. Two wont start sliding unless I increase gravity Maybe that will help with what's going wrong

The other crafts on other planets I tested all slide without changing gravity

All the crafts I used are attached

The screenshot is the Minmus location

In 1.12.1 use hack grav and increase until you see the other two crafts starting to slide.

Note: The save was created in 1.11.2 so it can be compared if necessary

#5 - 07/01/2021 01:23 PM - MarlusKeep

- File No Friction Control.png added

Sorry for the late response

Unfortunately I don't have the save and ship anymore because I deleted them. But this is easily reproducible since version 1.12.

Thank you Anth12 for submitting new files.

As you can see in the video, all landing legs have a parameter called "frictionAdherent" in their .cfg files. The default value of this parameter is 0.1.

If you manually change this value in the .cfg files to higher numbers like 1.0, 2.0 or 3.0, the landing legs stop sliding even on steeper slopes.

These parameters can also be found on wheels. The difference is that in the game, it is possible to override these wheel friction controls, and change their values.

So as I suggested, I think the best option would be to add these friction controls to the landing legs as well, so players could tweak them however they wanted.

#6 - 07/01/2021 08:45 PM - Anth12

My bug report for the wheels that are sliding as well: [#28108](#)

There's a comment there that it might be a bit more complicated than just setting frictionAdherent = 1.0

#7 - 07/01/2021 09:12 PM - MarlusKeep

I found a solution to this bug.

Theres a parameter on the landing legs .cfg files called "autoFrictionAvailable". This is set "False" by default.

If you change it to True, the options to override friction control appear for landing legs too! So i think thats exactly what we need to at least fix the prolems with sliding.

This is a extremely simple fix, for a so anoying bug, and need to be on the next patch!

You can see this video to understand better.

<https://youtu.be/2l0ZafAld4>

#8 - 07/02/2021 02:42 AM - jclovis3

My workaround has not been to change values in configuration files, but to work with the bug as it stands because I thought maybe they intended for those flat footed landing gear to slide on sandy surfaces in low gravity. My workaround was to have structures with the rubber grip pads on the bottom extend just short of the reach of the landing gear so I can use the landing gear to make contact with the ground and stop my downward momentum, then retract the landing gear to set stable on those structures with the rubber pads. No more slipping.

#9 - 07/02/2021 02:57 AM - MarlusKeep

I understand your point jclovis3.

Unfortunately this bug happens on any planet or moon, including Eve.

I think the best option is to turn on the friction controls option on landing legs, to give the player more ways to explore oportunities on the game.

As i demonstrated on the second video, its a extremely simple fix on the .cfg file: <https://youtu.be/2l0ZafAld4>

But as I said at the beginning, I completely understand your point, and i hope you agree with me.

#10 - 07/02/2021 04:07 AM - Anth12

jclovis we are experienced KSP players. I personally have well over 5000 hours in the game. I eventually can figure a way around most issues with the game. But less experienced players shouldn't have to work around an issue which could come up within days of playing the game for the first time in my opinion

Files

1112 quicksave.sfs	90.3 KB	07/01/2021	Anth12
28141 Different Locations.sfs	823 KB	07/01/2021	Anth12
LT-1 Landing Strut Big Craft.craft	93.1 KB	07/01/2021	Anth12
LT-2 Landing Strut Big Craft.craft	93.4 KB	07/01/2021	Anth12
LT-2 Landing Strut.craft	36.2 KB	07/01/2021	Anth12
LT-05 Smaller Craft.craft	18.5 KB	07/01/2021	Anth12

screenshot220.png

2.75 MB

07/01/2021

Anth12

No Friction Control.png

2.92 MB

07/01/2021

MarlusKeep