

MyStar & Making Space Social

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Build Stars. Create Life. Profit!

Persistency: the game runs on a server in the background so that systems can evolve while the player is offline.

Time Scales: Events occur on a timescale of one million years per minute. Giant worlds can be built in a few minutes; terrestrial worlds a few minutes after that. Single cell life can arise within an hour, but complex life can require several hours. Star lifetimes can range from seconds (for supergiants) to weeks (for sun-like stars).

Currency: Players begin with enough Starbux to create a star and a world. Each star generates income over time: stars with planets earn more; if the planets have life they earn even more.

Achievements: The game encourages certain actions through “Feats”: accomplishing each task earns badges and titles.

Learning Goals: the structure of the game lets us directly address stellar lifecycles; their dependence on initial mass; their relative timescales; as well as some conditions relating to life including both galactic and stellar “habitable zones.”

? Help

This is the main galaxy view, you can click on the yellow stars to get more information. If you have your own stars you can access them through the 'My Stars' window, if you don't then start one by clicking the 'Create a New Star' button.

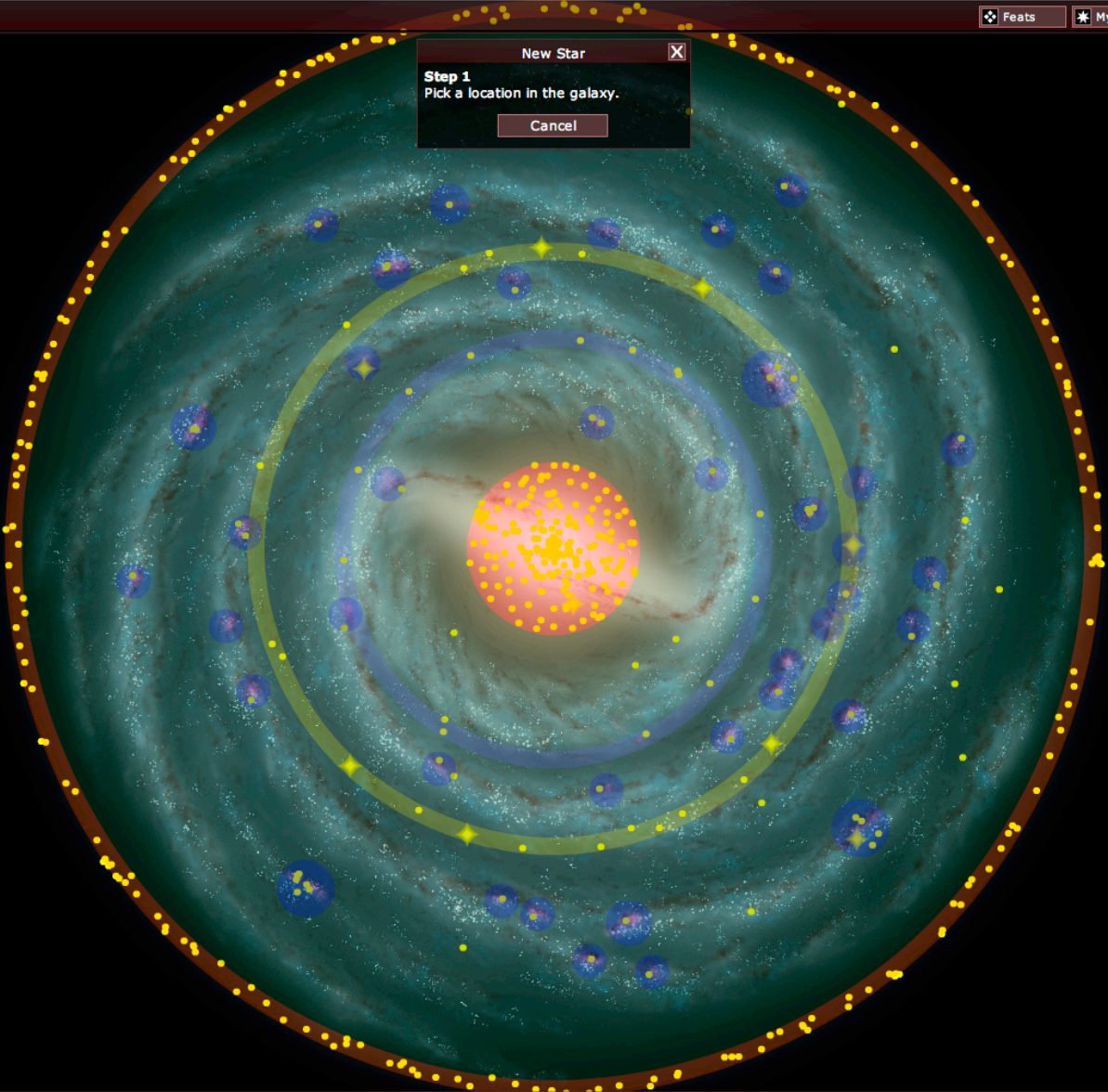
New Star

Step 1
Pick a location in the galaxy.

H History

04.23.2012 11:56am
Completed feat "Nice to Know You..."

04.23.2012 11:55am
Welcome to MyStar Dchines! Chec...



? Help ✕

This is the planet view. Certain planets can be suitable for life! Remember that it takes about 1 billion years for bombardment of the planet to stop.

Name: **Sol A**
Type: **giant**
Distance: **5 AU**
Habitable: **No.**

Giant planets cannot support life.

Customize

Star View

H History ✕

04.23.2012 12:51pm
Star "Sol" reached "Post terrest...

04.23.2012 12:11pm
Star "Sol" reached "Terrestrial ...

04.23.2012 12:04pm
Star "Sol" reached "Post giant p...

04.23.2012 12:04pm
Created a new giant planet, "Sol...

04.23.2012 12:04pm
Created a new giant planet, "Sol...

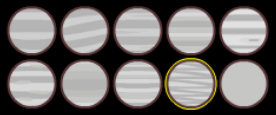
04.23.2012 12:03pm
Created a new giant planet, "Sol...

04.23.2012 12:03pm
Completed feat "Planeteer", earn...

1 2

Customize ✕

Pick a pattern:



Pick first color: Pick second color:

Done



Sol A: 5,498,407,850 years
Star Timeline
5,499,674,517 years
Zoom: - +
10,997,433,333 years

MyStar Learning Goals

- Galactic “habitable zones”
- Stars have life cycle controlled by initial mass
- Time scales of billions of years
- Solar systems have “habitable zones”
- Life may form relatively quickly, but takes billions of years to reach complex stages;
- Stellar encounters, asteroid impacts, and “gamma ray bursters” can interfere with of life

Making Space Social

- Combined project funded by NASA EPO & NSF
 - NASA funds content to support NASA goals
 - NSF funds education and evaluation
- Develop game that is deployable through Facebook, but with stand-alone capability for schools
- Game play leads to in-game “feats” that support National Standards for Astronomy (and fosters STIM)