

Universe number 1
System number 12

max. habitability **5**
 max. affinity **5**

Name of star **Epsilon Indi**

system number **12**

companion stars **2**

class of star **K2 V**

mass **0.1** periapsis **0.07** a.u.

mass **0.765** M(sol)

class **M7 V** apapsis **0.13** a.u.

luminosity **0.244** L(sol)

mass **0.1** periapsis **24** a.u.

age **1.3** billion years

class **M7 V** apapsis **56** a.u.

diameter **0.006** a.u.

row number	ID #	orbit radius (a.u.) (10,000 km)	world type	size (Earth dia.)	mass (Earth masses)	g (Earth g.)	atmosphere	hydrographics	temp (C)	climate	solar day (hours)	HI	RVM	Affinity
1	I	0.10	medium gas giant	10	250	2.3	superdense corrosive				infinite			
2	II	0.45	tiny rock planet	0.27	0.02	0.21	none		10	cool	infinite	0	-1	-1
3	III	0.64	standard garden planet	1.1	1.1	0.89	standard marginal	50% water	-13	cold	23.4	5	0	5
4	IIIa	53	tiny rock moon	0.30	0.02	0.21	none		-37	frozen	1233	0	0	0
5	IV	1.1	standard ice planet	0.73	0.36	0.66	thin suffocating		-74	frozen	25.5	-1	1	0
6	V	2.4	medium gas giant	8.2	100	1.5	superdense corrosive				10.6			
7			7 moonlets						-152	frozen		0	1	1
8	Va	120	small ice moon	0.42	0.04	0.21	very dense mildly toxic	70% hydrocarbons	-142	frozen	365	-1	0	-1
9			4 moonlets						-152	frozen		0	0	0
10	VI	4.2	medium gas giant	11	300	2.6	superdense corrosive				13.3			
11			8 moonlets						-180	frozen		0	0	0
12	VIa	110	tiny sulfur moon	0.13	0.00	0.08	none		-199	frozen	185	-2	0	-2
13	VIb	187	small ice moon	0.37	0.02	0.18	dense mildly toxic	50% hydrocarbons	-178	frozen	410	-1	0	-1
14			6 moonlets						-180	frozen		0	0	0
15	VII	7.1	small gas giant	3.9	15	1.0	superdense corrosive				144			
16			10 moonlets						-202	frozen		0	0	0
17	VIIa	35	standard hadean moon	0.74	0.12	0.22	none		-224	frozen	144	0	0	0
18	VIIb	42	small hadean moon	0.32	0.02	0.16	none		-224	frozen	194	0	0	0
19	VIIc	50	standard hadean moon	0.36	0.02	0.18	none		-224	frozen	254	0	0	0
20	VIIId	61	tiny sulfur moon	0.24	0.01	0.10	none		-217	frozen	341	-1	1	0
21			5 moonlets						-202	frozen		0	0	0

display row #

3

(see system table)

system number	12	world	III	<i>Apollo</i>	
Planetology		Population & economy		Society	
class of star	K2 V	Habitability	5		
mean distance	0.64 a.u.	Resources	average RVM 0		
perihelion	0.62 a.u.	Affinity	5		
aphelion	0.67 a.u.	settlement type			
axial tilt	2.8°	carrying capacity	7.4 E+8		
annual period	0.589 years	population			
	220.2 local days	tech level	10 PR		
local day	23.4 hours	per-capita income	G\$		
		typical wealth			
		economic volume	G\$		
standard garden planet		spaceport class			
diameter	1.1 x Earth's	Government			
	14191 km	world unity			
density	0.80 x Earth's	government type			
	4.4 g/cm ³	control rating			
surface gravity	0.89 g.	Installations			
	8.7 m/s ²	type			
escape velocity	11 km/s	PR			
vulcanism	moderate				
tectonics	moderate				
climate					
temperature	cold				
average	-13 C				
perihelion	-8 C				
aphelion	-18 C				
illumination	46 % Earth's				
oceans					
composition	water				
tidal range	2.8 m				
atmosphere					
main gases	N2, O2				
traces &c.	inert gases				
class	marginal				
pressure	0.89 bar				
	(standard)				
Sky objects	apparent:	size	period	tides	
class		(degrees)	(hours)	(m)	
sun:	K2 V	0.57	23.4	1.9	
IIIa:	tiny rock moon	0.42	23.9	0.91	

GURPS Space

advanced world-building sequence

user controls

Personal user number	1	enter a counting number (i.e. a positive integer)
use US Customary units?	FALSE	enter TRUE for US units, FALSE for Metric
campaign technology level	10	

Base carrying capacity at very high TL	
TL	Base carrying capacity
8	million
9	million
10	million
11	25 million
12	30 million

User-specified stellar characteristics

number of stars	3	Insert 1, 2, or 3, or leave blank for a random result
age of system	1.3	Insert the system age in billions of years, or leave blank for a random result
mass of primary star	0.765	Insert the mass of the primary star in solar masses, or leave blank for a random result
class of primary star	K2 V	The stellar class is calculated from mass and age. You cannot alter it.
luminosity of primary star	0.24	The star's luminosity is calculated from mass and age. You cannot alter it.
mass of [nearer] companion	0.1	Insert the mass of a companion star in solar masses, or leave blank for a random result
class of [nearer] companion	M7 V	The stellar class is calculated from mass and age. You cannot alter it.
luminosity of [nearer] companion	0.00	The star's luminosity is calculated from mass and age. You cannot alter it.
radius of 1st companion's orbit	0.066	Insert the semimajor axis of the nearer companion's orbit in AU, or leave blank for a random result
eccentricity of 1st companion's orbit		Insert the eccentricity of the nearer companion's orbit, on a scale of 0 to 1, not including 1, or leave blank for a random result
periapsis of 1st companion		Insert the periapsis of the 1st companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
apapsis of 1st companion		Insert the apapsis of the 1st companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
mass of further companion	0.1	Insert the mass of the primary star in solar masses, or leave blank for a random result
class of further companion	M7 V	The stellar class is calculated from mass and age. You cannot alter it.
luminosity of further companion	0.00	The star's luminosity is calculated from mass and age. You cannot alter it.
radius of 2nd companion's orbit	0.08	Insert the semimajor axis of the further companion's orbit in AU, or leave blank for a random result
eccentricity of 2nd companion's orbit		Insert the eccentricity of the further companion's orbit, on a scale of 0 to 1, not including 1, or leave blank for a random result
periapsis of 2nd companion		Insert the periapsis of the 2nd companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
apapsis of 2nd companion		Insert the apapsis of the 2nd companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
arrangement of gas giants		Insert "none", "conventional", "epistellar", or "eccentric", or leave blank for a random result
radius of orbit of first gas giant		Insert the semimajor axis of the first gas giant's orbit in AU, or leave blank for a random result. Will over-ride 'arrangement of gas giants'.
eccentricity of orbit of first gas giant		Insert the eccentricity of the first gas giant's orbit, on a scale of 0 to 1, not including 1, or leave blank for a random result. Will over-ride 'arrange

User-specified planet

world type	standard	Insert "asteroid belt", "tiny", "small", "standard", or "large", or leave blank for a random system.
subtype	garden	Insert "hadean", "ammonia", "ice", "ocean", "garden", "greenhouse" or "chthonian"
complete world type	standard garden	This value is calculated. You cannot alter it.
primordial atmospheric mass	1	Insert relative atmospheric mass (about 0.5 to 1.5). May be diminished by tide-locking.
basic atmosphere	breathable	This value is calculated. You cannot alter it.
worse atmosphere?	TRUE	Insert TRUE for marginal atmosphere, else FALSE or leave blank
atmospheric composition	marginal	This value is calculated. You cannot alter it.
marginal condition number	9	Insert the number of a marginal condition from the table on the right
marginal condition	inert gases	This value is calculated. You cannot alter it.
primordial hydrographic coverage	50	Insert hydrographic % between 50 and 100
average surface temperature	260	Insert temperature between 250 and 340 Kelvins
that's	-13	Celsius
climate	cold	This value is calculated. You cannot alter it.
blackbody temperature	244	This value is calculated. You cannot alter it.
density	0.8	Insert density between 0.8 and 1.2 times Earth's
diameter	1.11	This value is calculated. Adjust it using density and surface gravity.
surface gravity	0.89	Insert surface gravity between 0.53 and 1.13 times Earth's
mass	1.10	times Earth's. This value is calculated, you cannot alter it.
atmospheric pressure	0.89	times Earth's. This figure is calculated. To adjust it, alter atmospheric mass.
orbital radius	0.64	Astronomical units. This figure is calculated. You cannot alter it.
orbital eccentricity	0.04	
obliquity (axial tilt)	2.8	(degrees)
primordial day length	15	Insert the original day length (before tidal braking) in hours. About 6 to 40, average about 12.
number of major moons	1	0, 1, or 2. Or leave blank for a random result.
number of moonlets		0, 1, or 2. This value will be over-ridden if number of major moons is not blank or zero.
type of moon	tiny	Insert a world type no larger than that of the planet (tiny, small, standard, or large), or leave blank for a random result.
distance of moon	37	(planetary diameters). No less than 5. No more than 40.
resource value modifier	0	Insert resource value between -2 and 2
vulcanism	moderate	Insert "none", "light", "moderate", "heavy", or "extreme", or leave blank for a random result.
tectonics	moderate	Insert "none", "light", "moderate", "heavy", or "extreme", or leave blank for a random result.

number	marginal condition
1	Cl, F
2	sulfur compounds
3	NOx
4	organic toxins
5	low O2
6	pollutants
7	high CO2
8	high O2
9	inert gases