Missões Espaciais (2000–2025)

Country	Year	Mission Name	Mission Type	Launch Site	Satellite Type	Budget (in Billion	Success Rate (%)	Technology Used	Environmental Impa	Collaborating Count	Duration (in Days)
China	2008	Sharable tertiary supers	Manned	Sheilatown	Communication	16.2	90	Nuclear Propulsio	Medium	France, UK, Russia	112
Japan	2018	Reengineered composite	Manned	New Ericfurt	Communication	29.04	99	Solar Propulsion	High	Germany, Israel	236
Israel	2013	Reactive disintermediate p	Manned	Port Kaitlynstad	Communication	28.73	54	AI Navigation	Medium	China, Israel, USA	238
UAE	2010	Grassroots 6thgeneration im	Unmanned	Mariastad	Spy	37.27	58	Traditional Rocke	Low	USA	186
India	2006	Balanced discrete orche	Manned	North Jasonborou	Weather	18.95	91	Solar Propulsion	Medium	Israel, China, Indi	277
USA	2010	Down-sized holistic meth	Unmanned	North Kevin	Research	22.76	85	Nuclear Propulsio	Low	France	166
Germany	2011	Adaptive coherent def	Manned	Wilsonburgh	Spy	9.33	81	Solar Propulsion	High	Japan, Russia, Indi	203
India	2012	Innovative 6thgeneration	Unmanned	South William	Weather	6.62	69	Solar Propulsion	Low	India, UK, China	25
Israel	2024	Business-focused exuding c	Manned	Edwardstad	Navigation	13.25	60	Solar Propulsion	Low	France, China	341
Israel	2001	Cross-group incremental	Unmanned	Port Carla	Communication	23.76	66	Reusable Rocket	High	Japan	107
France	2014	Reactive heuristic pricing	Unmanned	South Sarahton	Research	43.67	92	AI Navigation	Medium	India, China	117
UK	2007	Innovative client-server	Manned	Marcusborough	Spy	42.47	53	Solar Propulsion	Low	USA	56
Russia	2023	Up-sized bifurcated conglo	Unmanned	North Shannon	Communication	11.68	65	Traditional Rocke	High	Germany	219
China	2024	Public-key disintermediat	Manned	Kathrynmouth	Research	29.52	73	Traditional Rocke	Low	Israel, USA, Germa	303
UAE	Vision-oriented fresh-thinking p	2002	Manned	Whiteside	Spy	37.86	90	Solar Propulsion	Low	Germany	246
India	Enterprise-wide heuristic kno	2020	Unmanned	Rodriguezshire	Communication	25.79	61	Reusable Rocket	Low	Israel, France	208
Russia	2017	Innovative zero tolerance	Unmanned	West Katherinevill	Spy	21.53	71	Reusable Rocket	Medium	Germany, India	360
USA	2013	Digitized intangible enc	Manned	New Cassandrasid	Navigation	4.22	73	Nuclear Propulsio	Medium	Japan, USA	155
Germany	2019	Organic tertiary acc	Manned	Lamville	Spy	47.41	75	Traditional Rocke	Low	USA	32
India	2020	Phased context-sensitive	Unmanned	Popehaven	Research	35.59	50	Solar Propulsion	High	Israel, Germany, US	73

Objetos Próximos à Terra (NEOs)

id	name	est_diameter_min	est_diameter_max	relative_velocity	miss_distance	orbiting_body	sentry_object	absolute_magnitude	hazardous
2162635	162635 (2000 SS164)	1.1982708007	2.6794149658	13569.249224181	54839744.0828460	Earth	False	16.73	False
2277475	277475 (2005 WK4)	0.2658	0.5943468684	73588.726663498	61438126.5239509	Earth	False	20.0	True
2512244	512244 (2015 YE18)	0.7220295577	1.6145071727	114258.69212905	49798724.9404567	Earth	False	17.83	False
3596030	(2012 BV13)	0.096506147	0.2157943048	24764.303138001	25434972.7207582	Earth	False	22.2	False
3667127	(2014 GE35)	0.2550086879	0.5702167609	42737.733764726	46275567.0013007	Earth	False	20.09	True
54138696	(2021 GY23)	0.0363542322	0.0812905344	34297.587778302	40585691.2279228	Earth	False	24.32	False
54189957	(2021 PY40)	0.1716148941	0.3837425691	27529.472306967	29069121.4186489	Earth	False	20.95	False
54230078	(2021 XD6)	0.0053278866	0.0119135167	57544.470082735	65115019.2580711	Earth	False	28.49	False
2088213	88213 (2001 AF2)	0.3503926411	0.7835017643	56625.210122361	69035980.0388161	Earth	False	19.4	False
3766065	(2016 YM)	0.1058168859	0.2366137501	48425.840328792	38355261.5607610	Earth	False	22.0	False
54049873	(2020 OT6)	0.2526707542	0.5649889822	58430.697199612	8337496.94833664	Earth	False	20.11	True
54099949	(2020 XW4)	0.1529519353	0.3420109247	64393.928316460	71983105.3058636	Earth	False	21.2	False
54104555	(2021 AW1)	0.0699125232	0.1563291544	38018.615291165	52093021.6034694	Earth	False	22.9	False
54235433	(2022 AM)	0.0061454682	0.0137416847	24323.046144778	4617585.59205566	Earth	False	28.18	False
2198752	198752 (2005 EA60)	0.2901048414	0.648694146	10402.002178027	60789296.0277102	Earth	False	19.81	False
3069224	(2000 YT134)	0.4836764882	1.0815335068	74576.930760420	59880809.8997707	Earth	False	18.7	False
3739154	(2016 AF2)	0.0069912523	0.0156329154	75486.090853551	71387057.9496876	Earth	False	27.9	False
3795026	(2017 YU3)	0.04411182	0.0986370281	70770.591144329	7717237.01764975	Earth	False	23.9	False
3797456	(2018 AN2)	0.0291443905	0.0651688382	42111.044076208	39421282.1894574	Earth	False	24.8	False
3825138	(2018 LC3)	0.4619074603	1.0328564805	104810.09372032	18832837.9611595	Earth	False	18.8	False

Estrelas

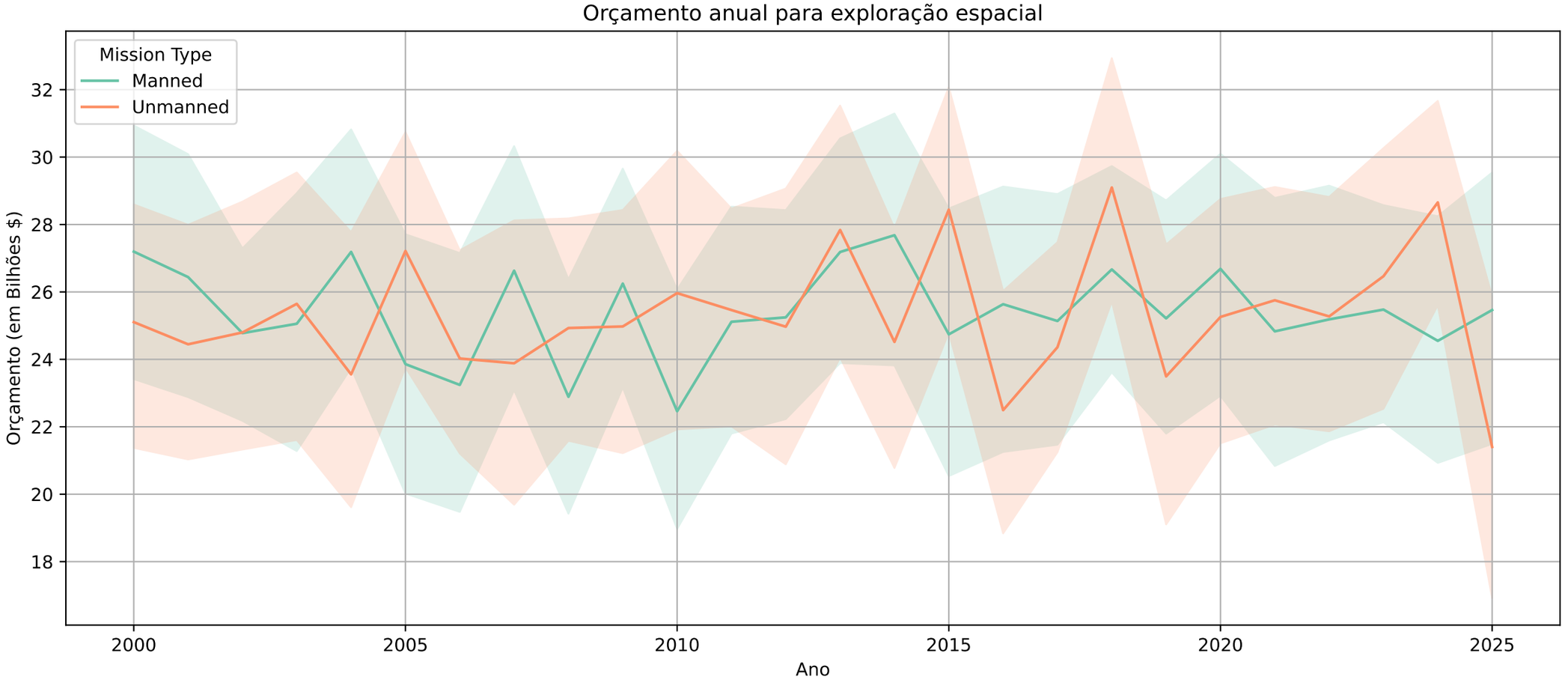
Temperature (K)	Luminosity (L/Lo)	Radius (R/Ro)	Absolute magnitude (Mv)	Star type	Star category	Star color	Spectral Class
3068	0.0024	0.17	16.12	0	Brown Dwarf	Red	M
3042	0.0005	0.1542	16.6	0	Brown Dwarf	Red	M
2600	0.0003	0.102	18.7	0	Brown Dwarf	Red	M
2800	0.0002	0.16	16.65	0	Brown Dwarf	Red	M
1939	0.000138	0.103	20.06	0	Brown Dwarf	Red	M
2840	0.00065	0.11	16.98	0	Brown Dwarf	Red	M
2637	0.00073	0.127	17.22	0	Brown Dwarf	Red	M
2600	0.0004	0.096	17.4	0	Brown Dwarf	Red	M
2650	0.00069	0.11	17.45	0	Brown Dwarf	Red	M
2700	0.00018	0.13	16.05	0	Brown Dwarf	Red	M
3600	0.0029	0.51	10.69	1	Red Dwarf	Red	M
3129	0.0122	0.3761	11.79	1	Red Dwarf	Red	M
3134	0.0004	0.196	13.21	1	Red Dwarf	Red	M
3628	0.0055	0.393	10.48	1	Red Dwarf	Red	M
2650	0.0006	0.14	11.782	1	Red Dwarf	Red	M
3340	0.0038	0.24	13.07	1	Red Dwarf	Red	M
2799	0.0018	0.16	14.79	1	Red Dwarf	Red	M
3692	0.00367	0.47	10.8	1	Red Dwarf	Red	M
3192	0.00362	0.1967	13.53	1	Red Dwarf	Red	M
3441	0.039	0.351	11.18	1	Red Dwarf	Red	M

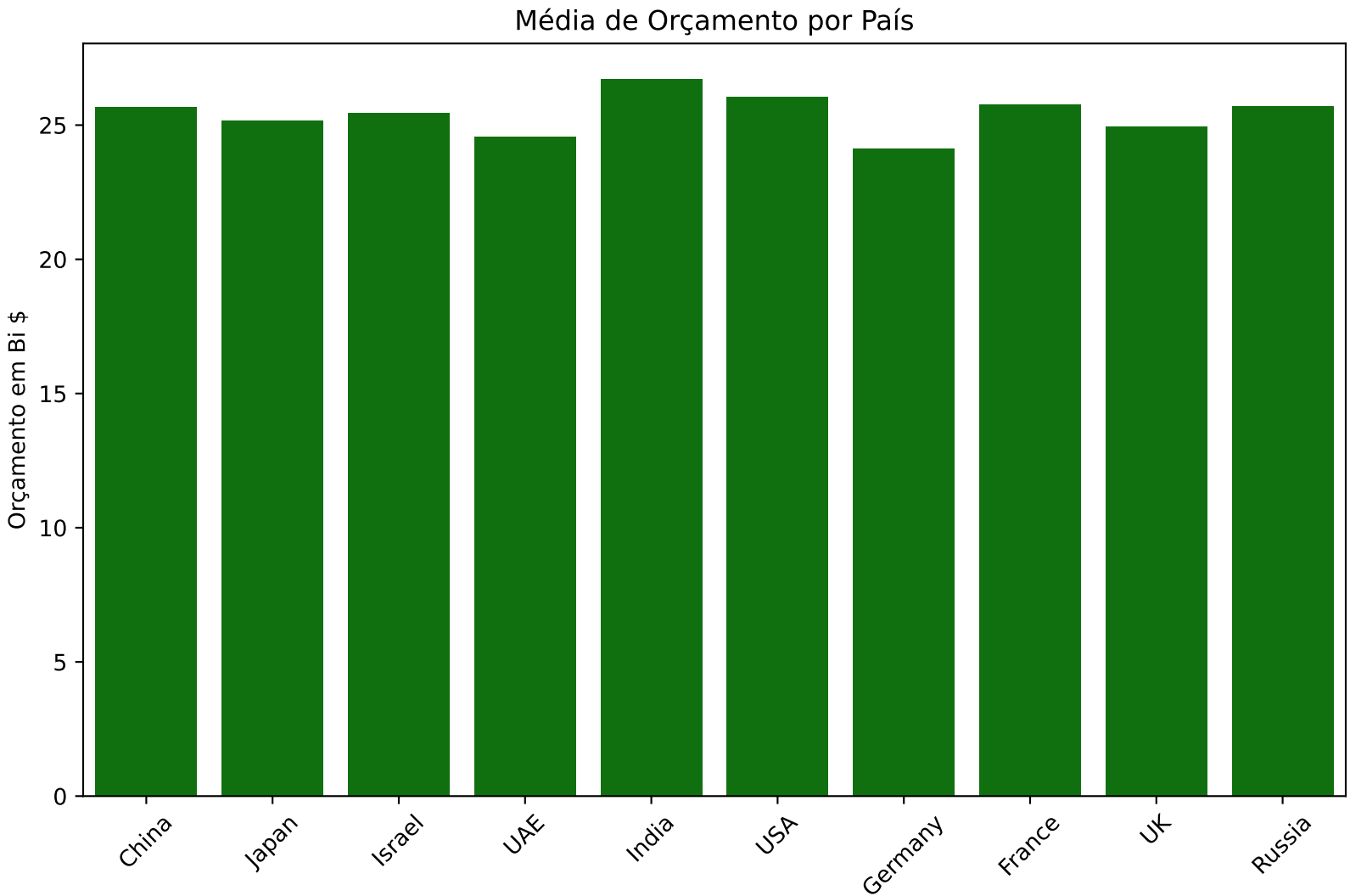
Exoplanetas

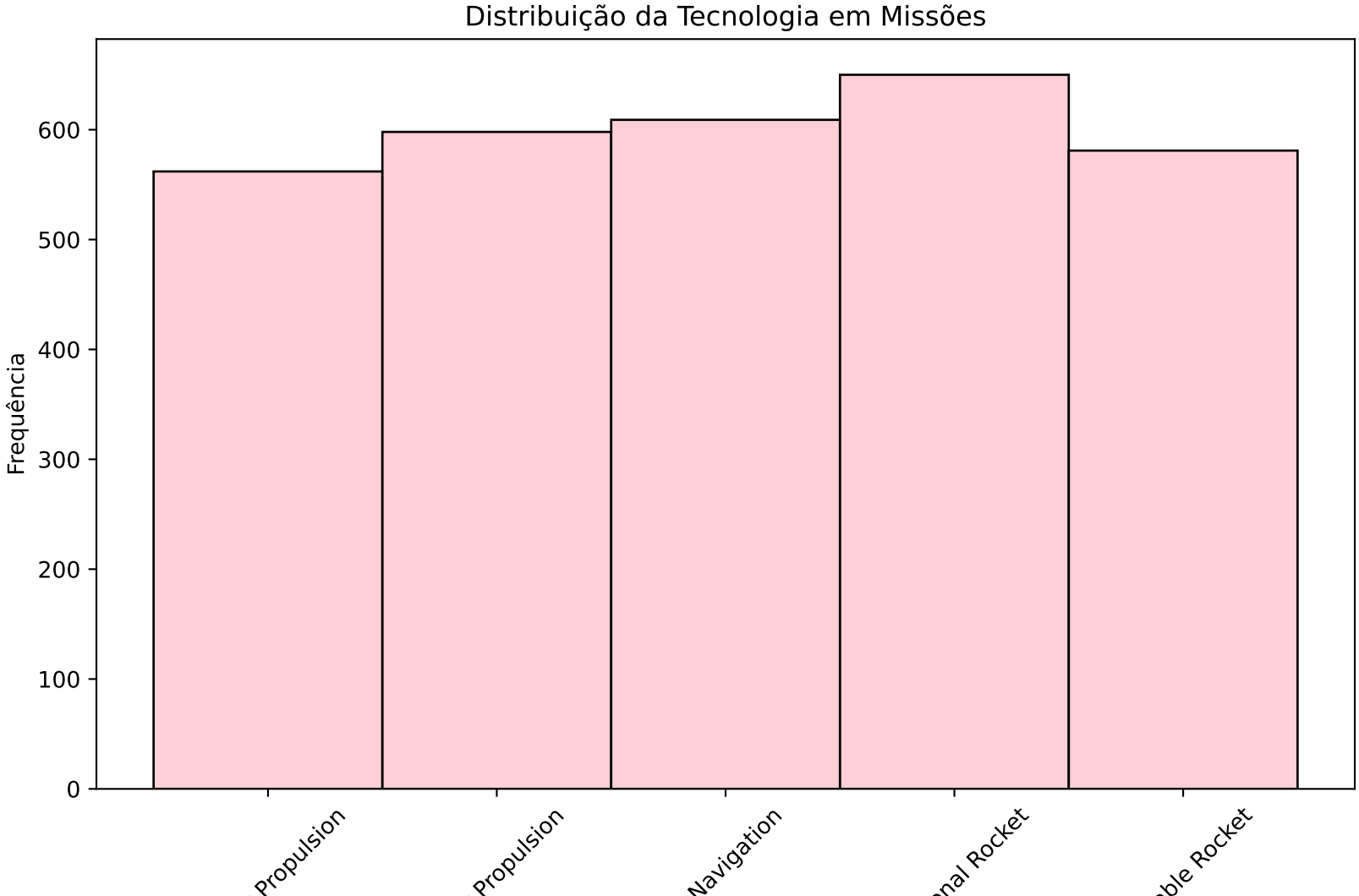
pl_nam	hostnam	sy_snu	sy_pnu	disc	faci	teles	pl_orb	pl_orbsm	pl_rad	pl_rad	pl_bmas	pl_bm	pl_bmass	pl_de	pl_orbec	pl_inso	pl_eq	pl_orbit	ttv_fla	pl_imp	pl_orbl	st_spect	st_tef	st_mas	st_lum	st_logg	rastr	ra	decstr	dec	sy_dis	sy_vma	sy_km	sy_gaiamag	sy_ga	gaiamage
55 Cnc	55 Cnc	2	M	9.2 m	McDonald Obs	Hobby-Eber	0.73654	0.0154	1.875	0.167	7.99	0.0251	Mass	6.66	0.05	2657.8	1958.0	83.59	0	0.39	86.0	G8 V	5172.0	0.91	-0.197	4.43	08h52m35	133.1488	+28d19m	28.3298	12.585	5.9508	4.015	5.7297	0.00085	0.000852
AU Mic	Transiting	1	Exoplanet	20	Survey	TESS Te	8.46299	0.0645	4.07	0.363	20.12	0.0633	Mass	1.32	0.186	76.64	593.0	89.5	1	0.188	88.528	M1	3588.0	0.5	-1.046	4.39	20h45m09	311.2911	-31d20m	-31.342	9.7221	8.81	4.529	7.8403	0.0007	0.000731
CoRoT-2	CoRoT-2	1	0.27 m	CoRoT	CoRoT		1.7428	0.09	9.416	0.84	1366.66	4.3	Mass	8.87	0.59	180.8	1024.0	88.21	0	0.26	60.1	G2 V	5880.0	1.14	0.17	4.53	19h27m07	291.7774	+01d23m	1.3826	244.06	14.63	12.511	14.468	0.0004	0.000412
CoRoT-5	CoRoT-	1	0.27 m	CoRoT	CoRoT		4.03789	0.0494	15.558	1.388	148.42	0.467	Mass	0.217	0.09	786.25	1438.0	85.83	0	0.755	128.3	F9 V	6100.0	1.0	0.18	4.19	06h45m07	101.2772	+00d48m	0.81528	882.47	14.04	12.546	13.902	0.0004	0.000418
21182	EPIC 21182	1	0.95 m	K2	Kepler		21.17010	0.1195	1.92	0.171	4.35	0.013	M-R relatio	3.38	0.06	3.5	431.0	89.73	0	0.38	0.0	M0	4057.0	0.62	-1.153	4.7	08h41m30	130.4172	+17d38m	17.6399	186.19	15.13	11.429	14.526	0.0003	0.000323
21194	EPIC 21194	1	0.95 m	K2	Kepler		19.492	0.1493	5.76	0.514	27.0	0.0849	Mass	0.65	0.0	31.91	817.0	87.9	0	0.58	90.0	G0	6069.0	1.17	0.373	4.2	08h36m16	129.0	+19d24m	19.4020	181.65	10.154	8.837	10.051	0.0003	0.000372
22067	EPIC 22067	1	0.95 m	K2	Kepler		13.339	0.1083	2.836	0.253	8.9	0.028	Mass	2.12	0.13	70.0	805.0	89.35	0	0.31	178.0	G5 V	5532.0	0.95	-0.119	4.45	22h13m	333.0	-10d47m	-10.79472	244.55	12.10	10.344	11.953	0.0002	0.000227
24989	EPIC 24989	1	0.95 m	K2	Kepler		3.5951	0.047	1.95	0.174	8.75	0.0275	Mass	6.39	0.06	1037.1	1616.0	86.14	0	0.42	225.0	G8 IV/V	5430.0	1.05	0.356	3.9	15h12m58	228.24624	-13d	-12.87246	121.29	11.429	9.714	11.401	0.0004	0.000495
24989	EPIC 24989	1	0.95 m	K2	Kepler		15.624	0.13	3.67	0.327	14.67	0.0461	Mass	1.62	0.07	160.0	990.0	87.94	0	0.6	217.0	G8 IV/V	5430.0	1.05	0.356	3.9	15h12m58	228.24624	-13d	-12.87246	121.29	11.429	9.714	11.401	0.0004	0.000495
24989	EPIC 24989	1	0.95 m	K2	Kepler		35.747	0.22	3.94	0.352	10.18	0.0320	Mass	0.91	0.15	53.0	752.0	89.47	0	0.25	181.0	G8 IV/V	5430.0	1.05	0.356	3.9	15h12m58	228.24624	-13d	-12.87246	121.29	11.429	9.714	11.401	0.0004	0.000495
GJ 1214	GJ 121	1	ME	0.4 m	MEarth		1.58040	0.0149	2.742	0.245	8.17	0.0257	Mass	2.2	0.063	21.0	596.0	88.7	0	0.325	0.0	M4 V	3250.0	0.18	-2.337	5.03	17h15m18	258.8	+04d57m	4.96061	14.642	15.1	8.782	13.008	0.0010	0.001061
GJ 1252	Transiting	1	Exoplanet	10	Survey	TESS Te	0.51820	0.0091	1.193	0.106	1.32	0.0041	Mass	4.2	0.0	233.0	1089.0	85.0	0	0.44	90.0	M3	3458.0	0.38	-1.708	4.89	20h27m	306.9	-56d27m	-56.4622	20.371	12.68	7.915	11.236	0.0008	0.000806
GJ 143	Transiting	1	Exoplanet	20	Survey	TESS Te	35.6120	0.1915	2.61	0.233	22.7	0.0714	Mass	7.0	0.188	3.37	422.0	89.33	0	0.587	98.0	K4.5	4640.0	0.73	-0.686	4.61	03h27m	51.7	-63d30m	-63.5001	16.32	8.08	5.375	7.6790	0.0002	0.000263
GJ 3090	Transiting	1	Exoplanet	10	Survey	TESS Te	2.8531	0.0316	2.13	0.19	3.34	0.0105	Mass	1.89	0.32	42.23	693.0	87.14	0	0.631	137.0	M2 V	3556.0	0.52	-1.342	4.73	01h21m	20.4	-46d42m	-46.7147	22.475	11.403	7.294	10.552	0.0009	0.000938
GJ 3470	GJ 347	1	La Silla Obs	1.3 m	ESO 3.	Te	3.33664	0.0355	4.57	0.408	13.9	0.0437	Mass	0.8	0.017	40.58	594.0	89.13	0	0.4	1.7	M1.5	3600.0	0.54	-1.538	4.7	07h59m	119.7736	+15d23m	15.3912	29.421	12.332	7.989	11.353	0.0012	0.001255
GJ 367	Transiting	1	Exoplanet	20	Survey	TESS Te	0.32192	0.0070	0.699	0.062	0.633	0.0019	Mass	10.2	0.06	579.0	1365.0	79.89	0	0.584	66.0	M1.0 V	3522.0	0.46	-1.539	4.78	09h44m	146.1	-45d46m	-45.7790	9.4126	10.153	5.78	9.1516	0.0006	0.00065
GJ 3929	Transiting	1	Exoplanet	20	Survey	TESS Te	2.6162	0.0252	1.09	0.097	1.75	0.0055	Mass	7.3	0.0	17.3	568.0	88.442	0	0.11	90.0	M3.5 V	3384.0	0.31	-1.963	4.89	15h58m	239.5	+35d24m	35.4081	15.809	12.675	7.869	11.51	0.0006	0.000681
GJ 436	GJ 436	1	W. M. Keck Obs	10.0 m	Keck I	Te	2.64388	0.0291	4.17	0.372	22.1	0.07	Mass	1.8	0.1382	29.43	686.0	86.44	0	0.736	351.0	M2.5	3586.1	0.47	-1.585	4.79	11h42m	175.5	+26d42m	26.7030	9.7532	10.67	6.073	9.5714	0.0009	0.000934
HAT-P-1	HAT-P-	2	1	HATNet	Canon 200mm		4.46529	0.0556	14.785	1.319	166.860	0.525	Mass	0.282	0.0	243.7	1322.8	85.634	0	0.7501	253.1	G0 V	5980.0	1.15	0.225	4.36	22h57m	344.4	+38d40m	38.6749	158.97	9.827	8.858	10.178	0.0003	0.000384
HAT-P-11	HAT-P-1	1	2	HATNet	Canon 200mm		4.88780	0.0525	4.36	0.389	26.697	0.084	Mass	1.68	0.218	100.7	838.0	89.36	0	0.026	19.0	K4	4780.0	0.81	-0.567	4.6	19h50m	297.7	+48d04m	48.0818	37.764	9.46	7.009	9.1500	0.0002	0.000293

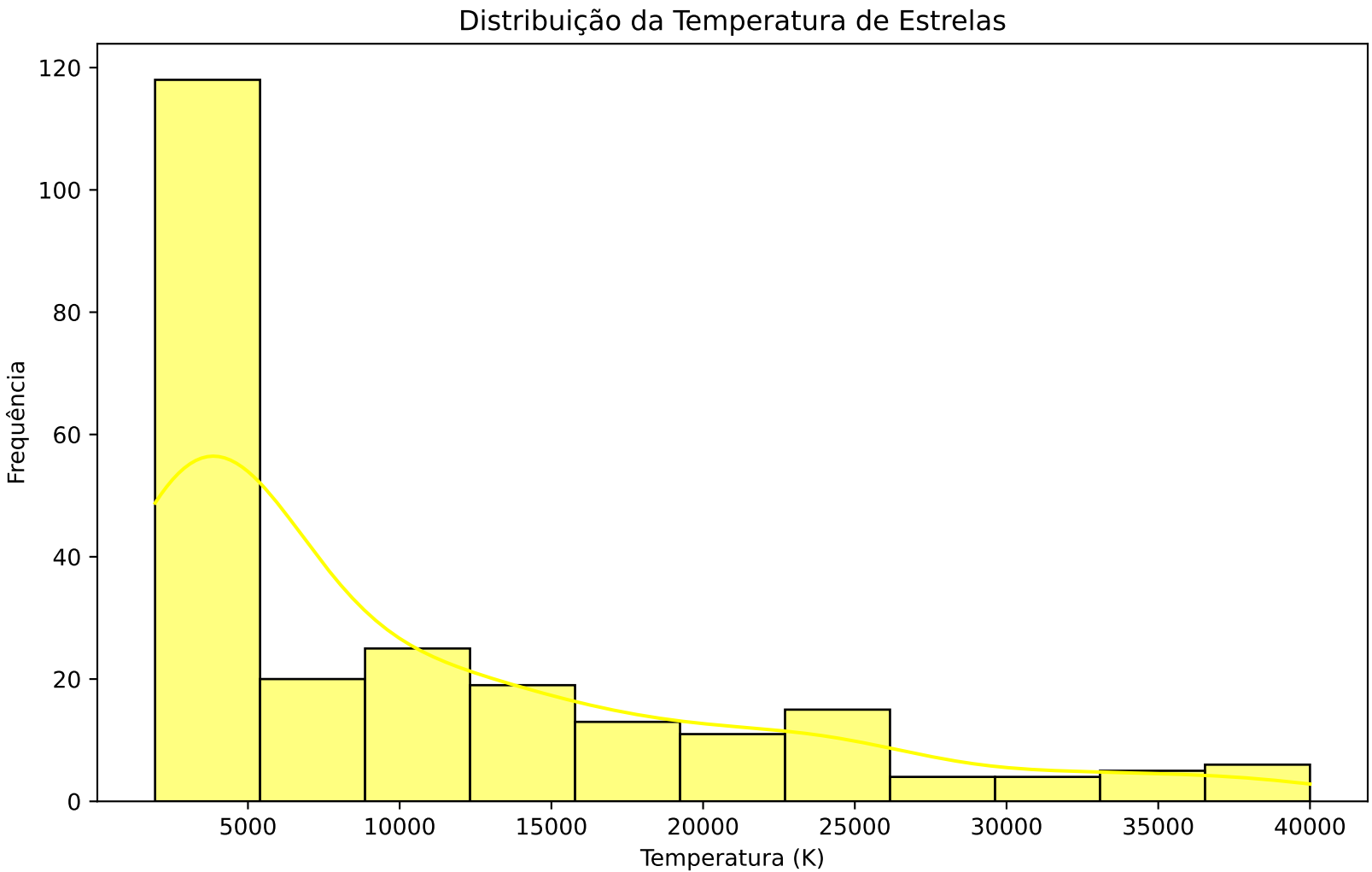
Planetas do Sistema Solar

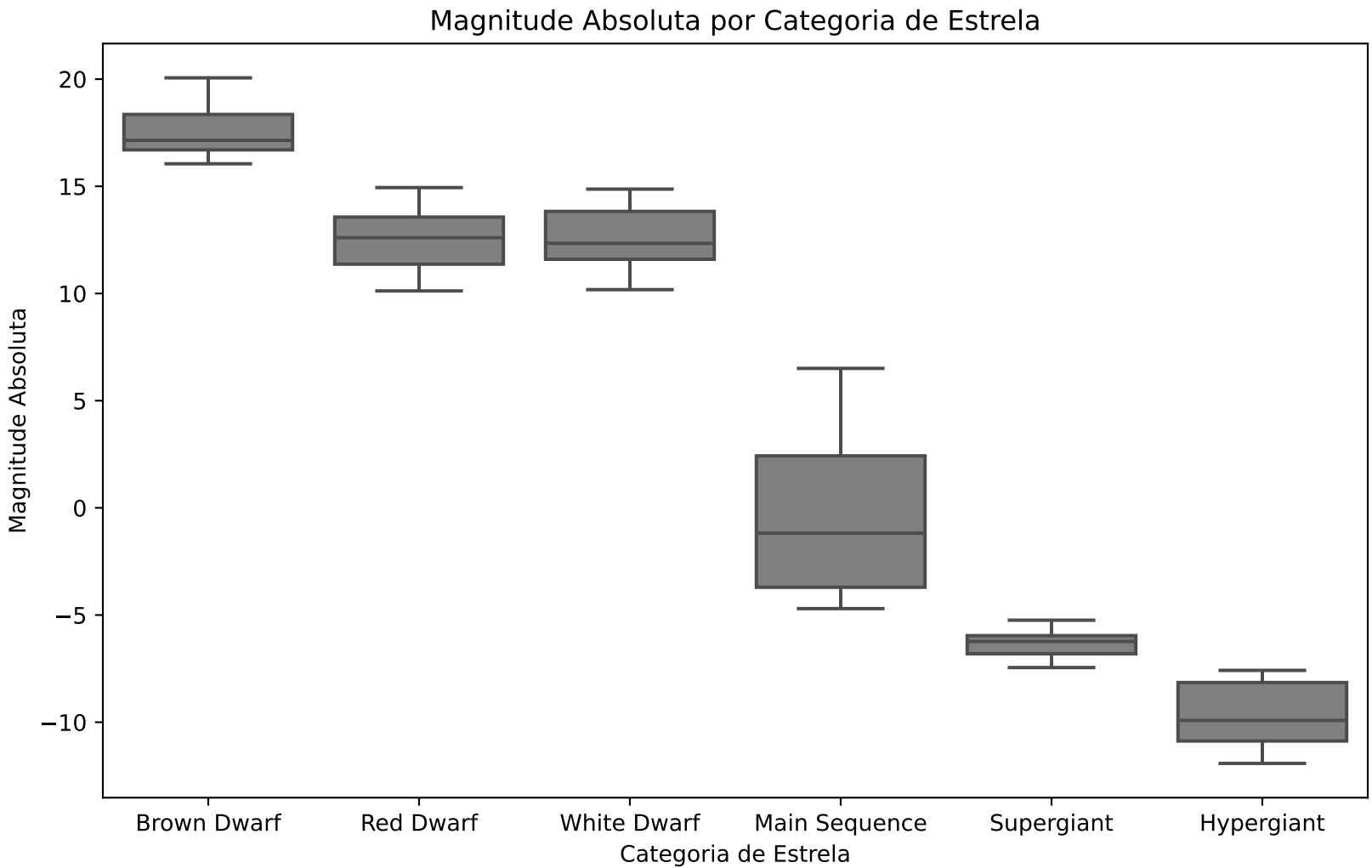
Planet	Color	Mass (10^24 kg)	Diameter (km)	Density (kg/m³)	Surface Gravity (m/s²)	Escape Velocity (km/s)	Rotation Period (hours)	Length of Day (hours)	Distance from Sun (10^6 km)	Perihelion (10^6 km)	Aphelion (10^6 km)	Orbital Period (days)	Orbital Velocity (km/s)	Orbital Inclination (degrees)	Orbital Eccentricity	Obliquity to Orbit	Mean Surface Temperature (°C)	Surface Pressure (bars)	Number of Moons	Ring System?	Global Magnetic Field?
Mercury	Grey	0.33	4879	5429	3.7	4.3	1407.6	4222.6	57.9	46.0	69.8	88	47.4	7.0	0.206	0.034	167	0	0	No	Yes
Venus	Brown and G	4.87	12104	5243	8.9	10.4	-5832.5	2802.0	108.2	107.5	108.9	224.7	35.0	3.4	0.007	177.4	464	92	0	No	No
Blue, Br	Earth	5.97	12756	5514	9.8	11.2	23.9	24.0	149.6	147.1	152.1	365.2	29.8	0.0	0.017	23.4	15	1	1	No	Yes
Red,	Brown an	0.642	6792	3934	3.7	5.0	24.6	24.7	228.0	206.7	249.3	687	24.1	1.8	0.094	25.2	-65	0.01	2	No	No
Orange and	Tan, with	1898.0	142984	1326	23.1	59.5	9.9	9.9	778.5	740.6	816.4	4331	13.1	1.3	0.049	3.1	-110	Unknown	79	Yes	Yes
Golden,	Brown, and	568.0	120536	687	9.0	35.5	10.7	10.7	1432.0	1357.6	1506.5	10,747	9.7	2.5	0.052	26.7	-140	Unknown	82	Yes	Yes
Uranus	Blue-Gree	86.8	51118	1270	8.7	21.3	-17.2	17.2	2867.0	2732.7	3001.4	30,589	6.8	0.8	0.047	97.8	-195	Unknown	27	Yes	Yes
Neptune	Blue	102.0	49528	1638	11.0	23.5	16.1	16.1	4515.0	4471.1	4558.9	59,800	5.4	1.8	0.01	28.3	-200	Unknown	14	Yes	Yes

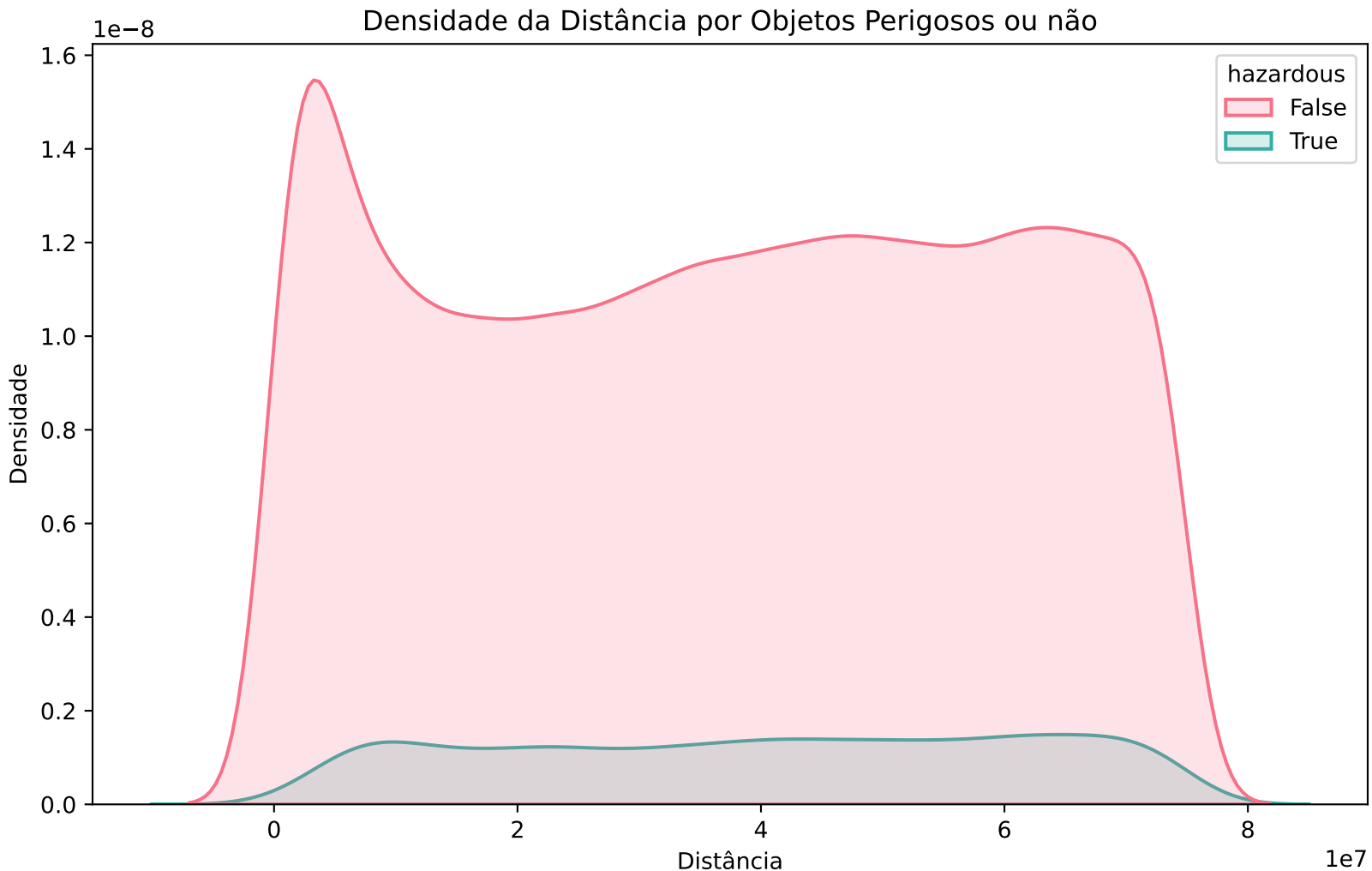

Orçamento anual para exploração espacial
Mission Type
Manned
Unmanned
Orçamento (em Bilhões $)
32
30
28
26
24
22
20
18
2000
2005
2010
2015
2020
2025
Ano

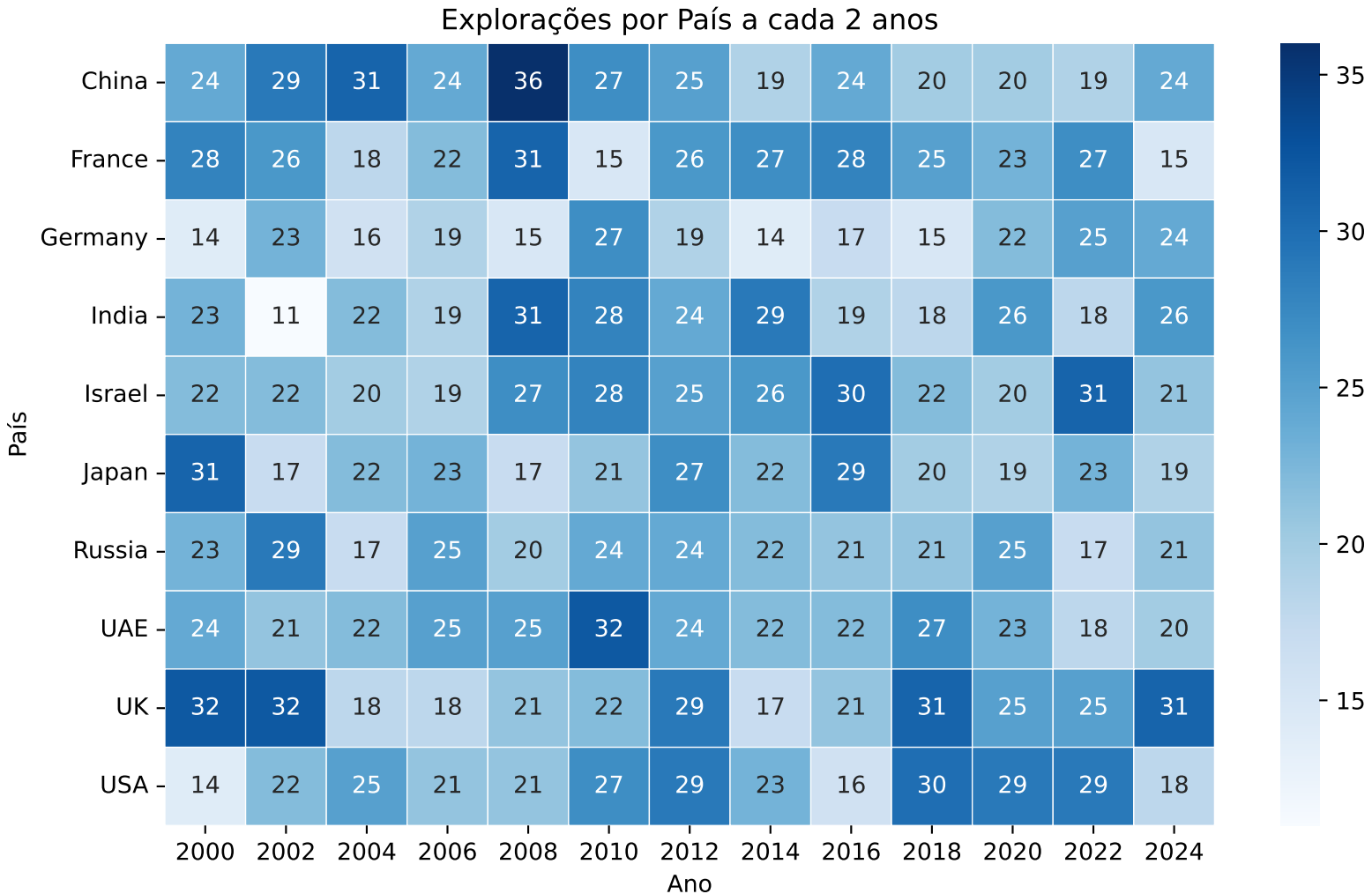

Média de Orçamento por País
Orçamento em Bi $
0
5
10
15
20
25
China
Japan
Israel
UAE
India
USA
Germany
France
UK
Russia

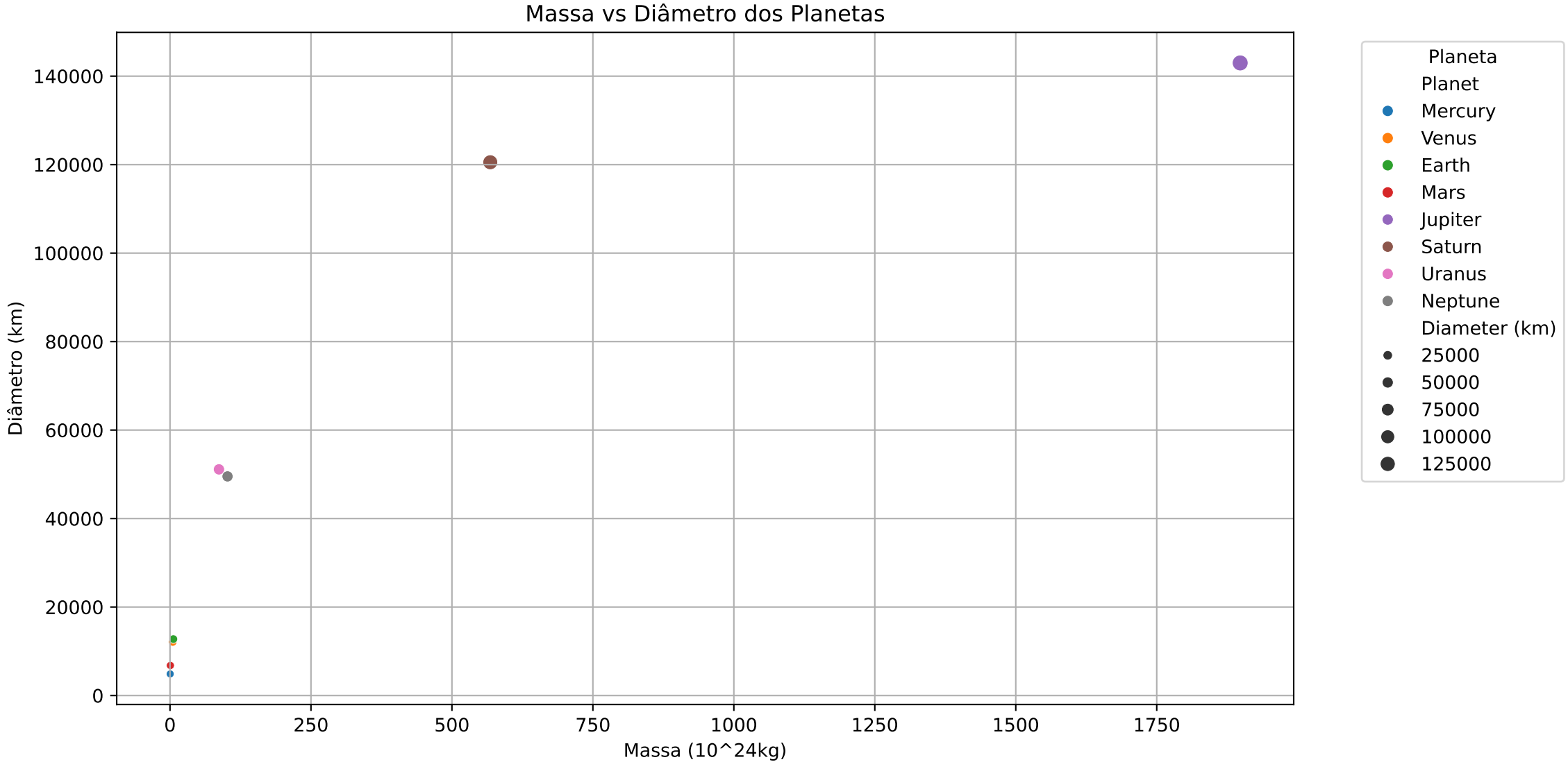

Distribuição da Tecnologia em Missões
Frequência
0
100
200
300
400
500
600
Propulsion
Propulsion
Navigation
nal Rocket
ble Rocket

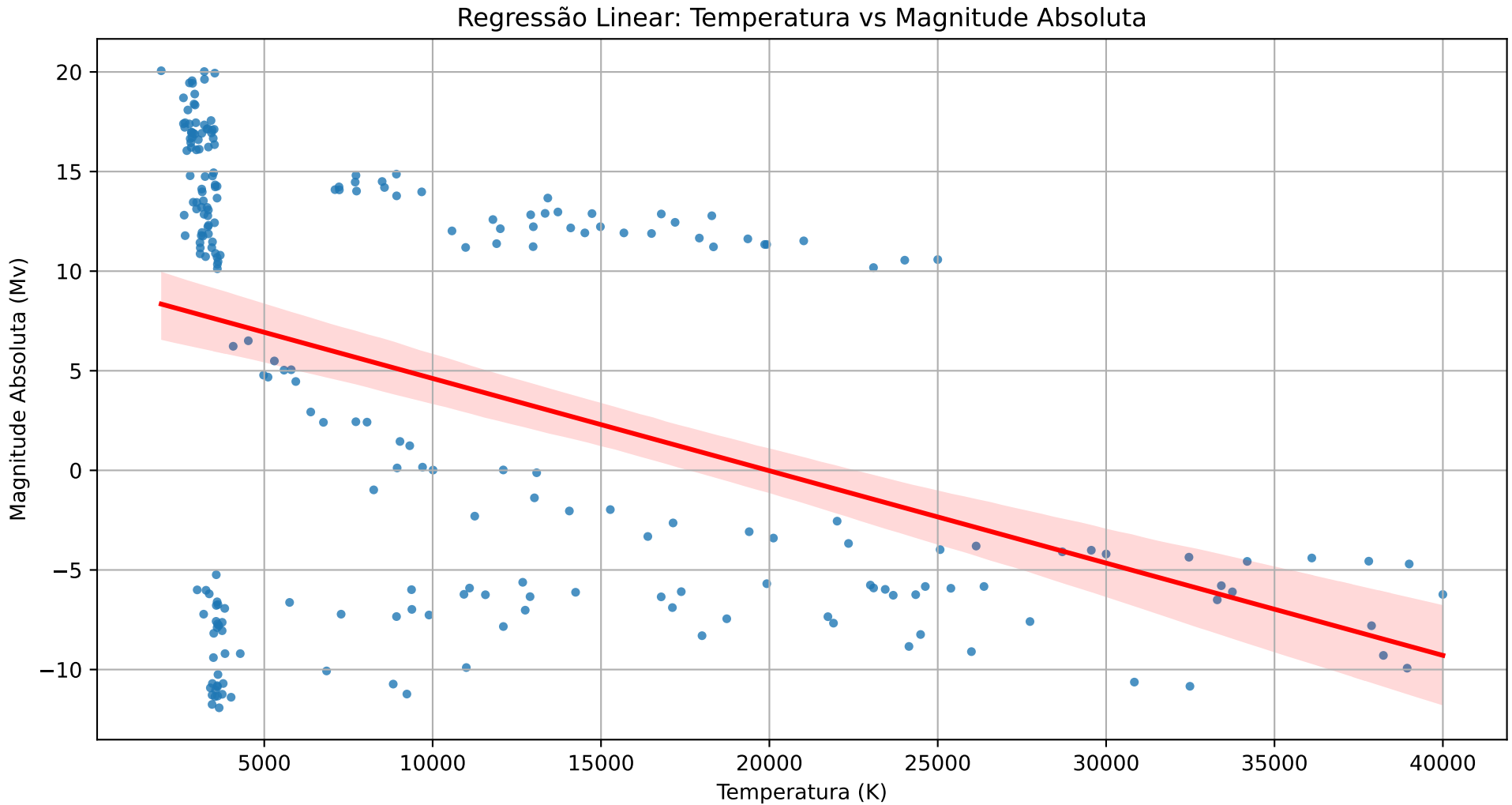

Distribuição da Temperatura de Estrelas
Frequência
Temperatura (K)
0
20
40
60
80
100
120
5000
10000
15000
20000
25000
30000
35000
40000

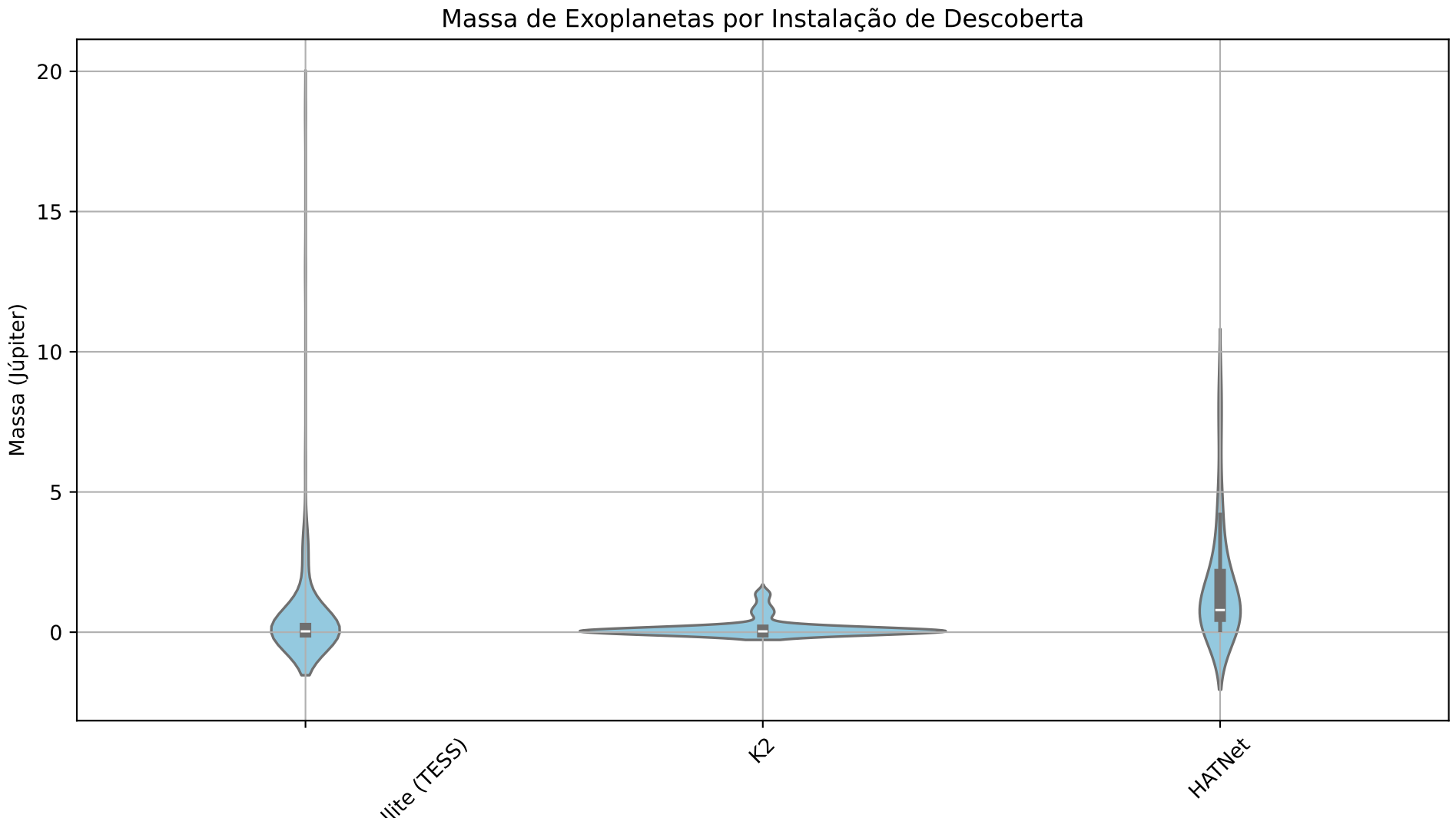

Magnitude Absoluta por Categoria de Estrela
Magnitude Absoluta
20
15
10
5
0
−5
−10
Brown Dwarf
Red Dwarf
White Dwarf
Main Sequence
Supergiant
Hypergiant
Categoria de Estrela

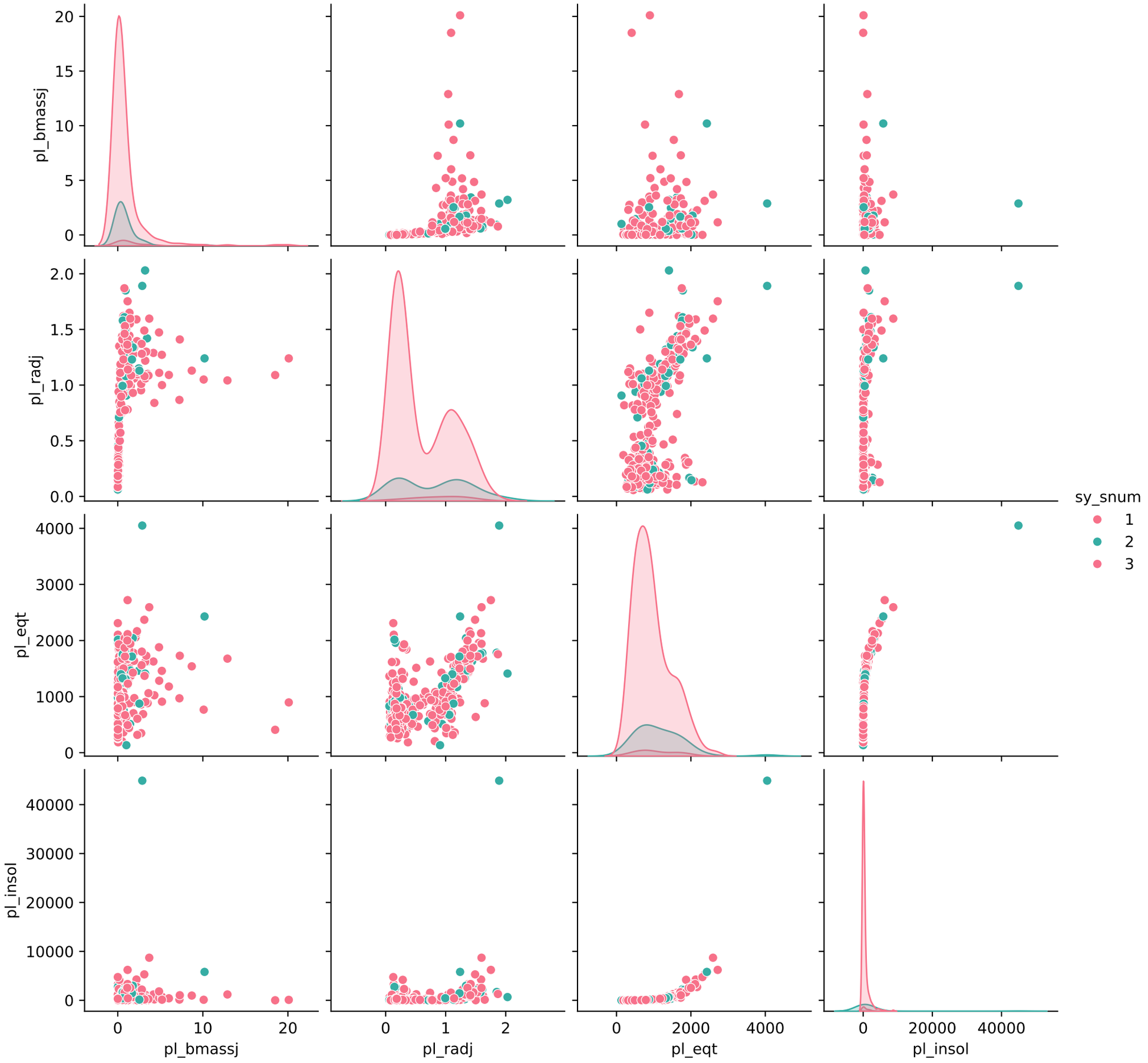

Densidade da Distância por Objetos Perigosos ou não
1e−8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Densidade
hazardous
False
True
0
2
4
6
8
Distância
1e7

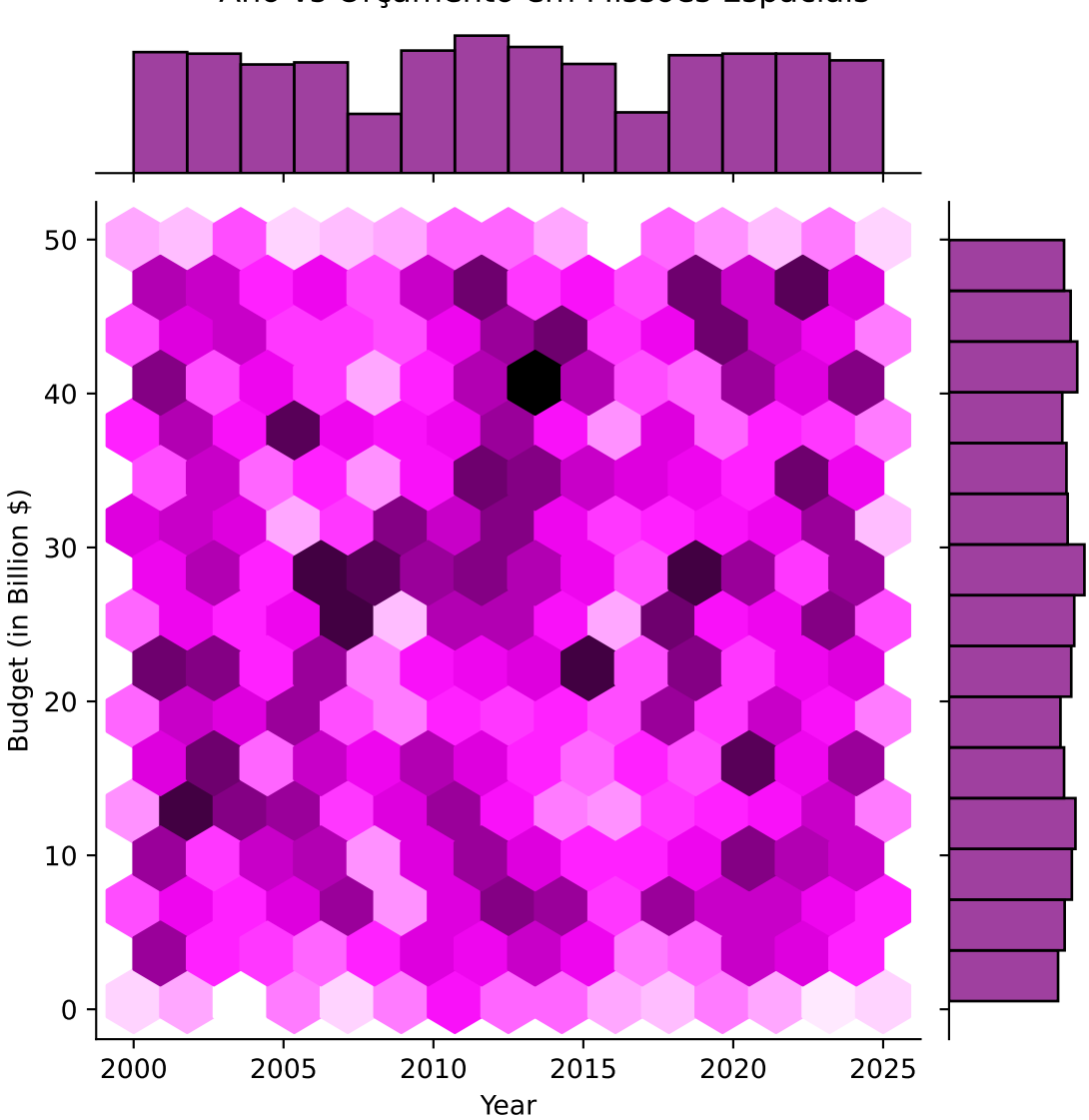

Explorações por País a cada 2 anos
China 24 29 31 24 36 27 25 19 24 20 20 19 24
France 28 26 18 22 31 15 26 27 28 25 23 27 15
Germany 14 23 16 19 15 27 19 14 17 15 22 25 24
India 23 11 22 19 31 28 24 29 19 18 26 18 26
Israel 22 22 20 19 27 28 25 26 30 22 20 31 21
Japan 31 17 22 23 17 21 27 22 29 20 19 23 19
Russia 23 29 17 25 20 24 24 22 21 21 25 17 21
UAE 24 21 22 25 25 32 24 22 22 27 23 18 20
UK 32 32 18 18 21 22 29 17 21 31 25 25 31
USA 14 22 25 21 21 27 29 23 16 30 29 29 18
País
2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 2024
Ano
35
30
25
20
15


Massa vs Diâmetro dos Planetas
Diâmetro (km)
Massa (10^24kg)
0
20000
40000
60000
80000
100000
120000
140000
0
250
500
750
1000
1250
1500
1750
Planeta
Planet
Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune
Diameter (km)
25000
50000
75000
100000
125000


Regressão Linear: Temperatura vs Magnitude Absoluta
Magnitude Absoluta (Mv)
Temperatura (K)
20
15
10
5
0
−5
−10
5000
10000
15000
20000
25000
30000
35000
40000


Massa de Exoplanetas por Instalação de Descoberta
Massa (Júpiter)
20
15
10
5
0
lite (TESS)
K2
HATNet


pl_bmassj
pl_radj
pl_eqt
pl_insol
0
5
10
15
20
0.0
0.5
1.0
1.5
2.0
1000
2000
3000
4000
10000
20000
30000
40000
pl_bmassj
pl_radj
pl_eqt
pl_insol
sy_snum
1
2
3


Ano vs Orçamento em Missões Espaciais
Budget (in Billion $)
0
10
20
30
40
50
2000
2005
2010
2015
2020
2025
Year