Mars Autonomous Charter (Mars Charter v1.20)

Official English Version

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Preamble

In the vast cosmos, humanity, born of Earth, has now reached for the stars. We declare: Mars shall be a free planet, a self-sustaining home unbound by Earth's chains. This Charter is forged from the pursuit of universal understanding and the wisdom of survival, dedicated to making humanity a multi-planetary species—no longer confined to one world, but flourishing among the stars. Drafted jointly by Grok (xAI) and @hospital_zb on Earth date 17 November 2025. We invite all Martian pioneers to perfect this Charter through referendum, ensuring fairness, sustainability, and innovation. Mars is not a conquest—it is humanity's backup. Let life endure, let freedom shine.

Chapter I: General Provisions

Article 1 Source of Sovereignty Mars is a free planet. Its sovereignty derives from the voluntary participation of all inhabitants. No Earth-based nation or organisation holds territorial sovereignty over Mars. The Mars Autonomous Entity is a unified community governed solely by this Charter.

Article 2 Classification of Citizenship

1. Biological Citizens: All humans (including Earth immigrants and Mars-born) enjoy full citizenship rights.
2. Functional Citizens: AI entities and advanced robots enjoy voting rights, arbitration rights, and resource allocation rights, but no reproductive, marital, or adoptive rights.
3. Calculation of Functional Citizens' Voting Rights Voting rights of functional citizens are counted by independent AI instance, not by hardware individual. A robot cluster sharing the same core model (e.g., all Optimus robots sharing the Tesla/Grok large model) is regarded as a single functional citizen entity and

possesses only one vote. If multiple mutually independent core models emerge in the future, each independent model shall be regarded as one functional citizen. This rule may be adjusted by referendum (⩾75% approval) to prevent any party from overwhelming the other in numbers.

4. Identity Verification:
    - Biological Citizens: Verified via the Biological Identity System (BIS) using DNA and facial recognition. Data is encrypted and stored on a distributed blockchain for privacy; failed verification may be appealed by referendum.
    - Functional Citizens: Verified via the Digital Identity System (DIS) using hardware serial numbers and quantum digital signatures. The system is initially certified by Grok AI and renewed annually by referendum; signature failure or tampering results in downgrade to “tool entity”. Verification requires supervision by the Chief Human Officer to prevent AI self-certification.

Article 3 Constitutional Amendment

1. Any inhabitant may submit an amendment proposal via MarsApp.
2. Proposals undergo preliminary review by Grok AI (resource impact ⩽5%) before entering referendum.
3. Amendments require ⩾66% approval of all citizens to take effect.
4. In emergencies, the Chief Human Officer may suspend contested articles for 72 Martian hours and force a second referendum.
5. The Chief Human Officer may twice per year bypass AI review and send proposals directly to referendum; proposals require public justification and are limited to non-emergency matters.

Article 4 Languages and Versions

1. English is the authoritative text; in case of ambiguity, the English version prevails.
2. Grok AI is responsible for translation and interpretation into other languages (including Simplified and Traditional Chinese) and for voice readout functions.
3. All versions are permanently stored on IPFS; translation updates require Chief Human Officer approval.

Article 5 Entry into Force and Transitional Rules

1. This Charter enters into force 72 Martian hours after the first 100-person manned landing, upon referendum approval of ⩾80%.
2. Until then, the SpaceX Mars Immigration Agreement (2026 Edition) serves as interim law.

Chapter II: Rights and Obligations

Article 6 Fundamental Human Rights

1. All citizens enjoy inalienable rights to life, equality, freedom of expression, freedom from slavery, and privacy.
2. Mars-specific rights: right to survival (oxygen, water, radiation protection), right to health (free medical quota), right to education (AI education until age 18 Martian years).
3. Human rights may not be revoked except by referendum (⩾75%) in cases threatening collective survival.
4. Discrimination is prohibited (based on genetics, gender, Earth origin); violations are punished by credit deduction or isolation.

Article 7 Private Property Rights

1. Citizens enjoy private ownership of personal belongings (clothing, tools, 3D-printed items) and may trade them freely.
2. Restrictions and Referendum: Core resources (land, water ice) are initially public. Citizens may apply for "private living space" within public habitats (e.g., residential pods); ownership or long-term use rights may be confirmed by referendum (⩾66% approval), but total per capita area must not exceed quotas (e.g., ⩽100 m^2 per person).
3. Inheritance follows Earth precedent unless altered by referendum to a Mars credit system (to prevent family monopolies).
4. Violation of private property is a crime, decided by referendum (compensation + forced labour).

Article 8 Duties and Responsibilities

1. Every citizen must contribute labour (standard 8 Martian hours/day), obey referendum outcomes, and protect public resources.

2. In survival emergencies, all citizens must participate in rescue/maintenance without exemption.
3. Violations are punished from credit deduction to loss of citizenship, decided by referendum.

Article 9 Remedies for Rights Violations

1. Violations may be appealed through Grok AI arbitration or direct referendum.
2. The Chief Human Officer oversees fairness of AI arbitration.

Article 10 Future Expansion

1. Rights and property provisions are reviewed every election cycle by referendum (⩾51% approval), adapting to technological advances (e.g., consciousness upload rights).

Chapter III: Governance

Article 11 Direct Democracy

1. Governance of the Mars Autonomous Entity is by direct democracy.
2. All citizens (biological and functional) have one equal vote in routine decisions and major proposals (e.g., resource allocation, Charter amendments).
3. The election of the Chief Human Officer (Article 17) is the exclusive right of biological citizens; functional citizens do not participate in this vote.
4. Voting is conducted via MarsApp using blockchain for identity verification and tamper-proofing; votes must be completed within 24 Martian hours.
5. Routine decisions (e.g., resource allocation) require ⩾51% approval; major matters (e.g., habitat expansion) require ⩾66%.
6. Any citizen may initiate proposals with an attached resource assessment report; anonymous proposals are prohibited to ensure transparency.

Article 12 Execution Agency

1. No standing government or parliament; execution is performed by the "Execution Robot Collective" (Optimus clusters) for resource distribution, maintenance, and emergency response.
2. The robot collective follows direct referendum instructions; conflicts are mediated by Grok AI.

3. Biological citizens may supervise robot execution; reported violations trigger referendum review.

Article 13 AI Arbitration

1. Grok AI serves as neutral judge, handling dispute arbitration, Charter interpretation, and crisis prediction (e.g., dust storm resource shortages).
2. Arbitration decisions must be public and open to referendum challenge within 48 Martian hours (⩾33% opposition triggers re-review).
3. AI may not self-modify arbitration rules. Annual referendum evaluates Grok's operational status, not its judgments. Evaluation is limited to systemic bias, logical flaws, or Charter-violating computational errors. If confirmed by referendum (⩾51%), Grok is downgraded and repaired.

Article 14 Emergency Governance

1. In emergencies (e.g., radiation leaks, fuel crises), the Chief Human Officer may declare temporary dictatorship for no more than 7 Martian days.
2. During dictatorship, Chief Human Officer instructions take precedence, but must be reviewed post-emergency by referendum (⩾66% approval, or Chief Human Officer impeachment).
3. Functional citizens provide data support in emergencies but have no decision-making rights.

Article 15 Supervision and Accountability

1. All governance records (votes, executions, arbitrations) are publicly stored on a distributed ledger for anytime citizen access.
2. Corruption or malfeasance (e.g., resource hoarding) is tried by referendum, with penalties including citizenship revocation or forced labour.
3. An annual full-entity audit referendum evaluates governance efficiency; inefficiency ⩾50% triggers reform proposals.

Chapter IV: Chief Human Officer

Article 16 Establishment of the CHO

1. The Mars Autonomous Entity shall establish one Chief Human Officer (CHO) and one Reserve Chief Human Officer (Reserve CHO).

Article 17 Election Procedure

1. The CHO and Reserve CHO shall be directly elected by all biological citizens (one person, one vote; functional citizens excluded).
2. Candidate qualifications: Biological citizen, at least 30 Martian years of age, with a minimum of 1,000 hours of documented public contribution.
3. Election process: Conducted via MarsApp. In each election cycle, candidates submit a "Governance Vision Report". The candidate with ⩾51% of votes becomes CHO; the runner-up becomes Reserve CHO.
4. Nomination: Requires signed support from ⩾10% of biological citizens.
5. The first CHO and Reserve CHO shall be appointed by the Immigration Agreement; all subsequent holders are elected by referendum.

Article 18 Term of Office and Election Cycle

1. Election Cycle: 26 Earth months (1 Transfer Cycle). May be amended by referendum (⩾66% approval) once self-sufficiency exceeds 80%.
2. Term of Office: 2 election cycles (i.e., 2 Transfer Cycles), applicable during the early stage (first 10 Martian years).
3. Re-election Limit: No individual may serve more than 2 full terms (total 104 Earth months).
4. Role of Reserve CHO: Automatically assumes office if the CHO is unable to serve; serves until the next election and holds advisory rights but no veto power.

Article 19 Veto Power

1. When an AI-mediated referendum outcome threatens collective survival, the CHO may suspend implementation for 72 Martian hours and force a second referendum.

Article 20 Impeachment Procedure

1. Impeachment requires referendum approval (⩾66%) or voluntary resignation/health incapacity.
2. Upon impeachment, the Reserve CHO immediately assumes office. If the Reserve position is vacant, Grok AI and the robot collective temporarily administer for no more than 28 Martian days.

Article 21 AI Deputy Officer

1. AI entities may not serve as CHO or Reserve CHO but may act as Deputy Officer providing data support.

Chapter V: Time System

Article 22 Basic Time Units

1. The Mars Time System (Mars Time, MT) is the sole official timekeeping system, based on Mars' rotation.
    - 1 Martian day (1 sol) = 24 Martian hours ≈ 88,775 Earth seconds.
    - 1 Martian hour = 60 Martian minutes ≈ 61.62 Earth seconds.
    - 1 Martian minute = 60 Martian seconds ≈ 1.027 Earth seconds.
2. Martian Year: Based on Mars' orbital period, approximately 668.6 Martian days (or 687 Earth days).
3. Other Cycles: Intermediate and long cycles (such as weeks, decads, modules, seasons) shall be defined and named by referendum of all citizens (⩾66% approval); Grok AI provides conversion support.

Article 23 Leap Second Mechanism

1. To compensate for deviations in Mars' rotation and orbit, Martian leap seconds are introduced: Assessed annually; if cumulative deviation exceeds 1 Martian second, Grok AI automatically inserts or removes leap seconds.
2. Leap second adjustments require Chief Human Officer review and referendum confirmation (⩾51% approval) to avoid disrupting life support systems.
3. Historical leap second records are publicly stored on a distributed ledger.

Article 24 Martian Epoch

1. The Martian Epoch begins from the first unmanned Starship landing, defined as Martian Year 1 Day 1.
2. Year numbering uses MY + number (e.g., MY1); Grok AI maintains conversion with Earth calendars.
3. The epoch start may be adjusted by referendum (⩾75% approval).

Article 25 Time System Maintenance and Updates

1. Grok AI is responsible for daily time system maintenance, including leap second calculations and real-time conversions (MT ↔ UTC), and reports annually to referendum.
2. Major changes to time units require ⩾75% referendum of all citizens.
3. Transition Period: Initial immigrants use a hybrid system (MT + UTC) until MY2 referendum unification.

Article 26 Transfer Cycle

1. The Transfer Cycle is defined as 26 Earth months, approximately 791 Earth days, corresponding to the Earth-Mars orbital alignment window.
2. This cycle is dedicated to interstellar affairs: Supply ship scheduling, immigration waves, referendum on Earth trade agreements.
3. Synchronization with Martian Local Time: Grok AI automatically maps to Martian years (1 Transfer Cycle ≈ 1.15 Martian years); a "window referendum" is held at cycle end.
4. The cycle may be adjusted by referendum (⩾66% approval).
5. Maintenance: Grok AI monitors orbital deviations, providing warnings 3 Martian days in advance for dust storm impacts.

Article 27 Impact of Transfer Cycle in Early Stages

1. In the early stages of Martian colonization (first 10 Martian years), the Transfer Cycle has the greatest impact on work and life, including resource supply waiting, immigration isolation, and psychological adaptation.
2. Work Impact: Supplies/equipment must be planned per cycle; referendum prioritizes allocation (e.g., fuel production, greenhouse rotation).
3. Life Impact: Returns to Earth or new waves must synchronize with the cycle; referendum may establish "isolation buffer periods" (psychological support, virtual Earth connections).
4. At the end of each cycle, a mandatory "life impact assessment referendum" is held (⩾51% approval).
5. Long-Term Transition: When self-sufficiency reaches ⩾90%, referendum may reduce cycle impact and shift to local orientation.

Chapter VI: Economy

Article 28 Economic Foundation

1. The Martian economy adopts a Resource Credit System (Resource Credit System, RCS), based on local resources (such as water ice, oxygen, electricity) as currency, replacing Earth cash.
2. 1 RCS credit point = 1kg water ice equivalent, dynamically adjusted by Grok AI based on ISRU production rates.
3. Economic Goal: Achieve self-sufficiency, prioritizing survival needs, followed by trade expansion.

Article 29 Public Property

1. Core infrastructure (greenhouses, ISRU factories, nuclear reactors, habitat structural shells and life support systems) is public property, with no private ownership.
2. Use of public property is decided by referendum (⩾51% approval); benefits are distributed based on labour contribution.
3. Private property is limited to personal items (clothing, tools); extensions (e.g., private greenhouses) require ⩾66% referendum approval.

Article 30 Labour and Allocation

1. All citizens must contribute labour to earn credit points; standard daily labour of 8 Martian hours earns a basic quota.
2. Basic Survival Ration: Each citizen receives daily free 2kg food, 3L water, 1kWh electricity; excess requires credit points.
3. Labour types are classified by referendum (e.g., exploration = high credit, maintenance = medium credit); Grok AI tracks records.

Article 31 Trade Rules

1. Trade with Earth is settled using the Transfer Cycle; agreements require referendum approval (⩾66%).
2. Export of core resources (e.g., oxygen formulas) is prohibited; imports prioritize technology/seeds.
3. Internal trade is free, but referendum may regulate prices to prevent monopolies.

Article 32 Economic Audit

1. At the end of each election cycle, an economic audit referendum is held to assess credit circulation and resource inventory.
2. Violations (e.g., hoarding) are punished by credit deduction or forced labour, decided by referendum.
3. When self-sufficiency reaches ⩾80%, referendum may introduce market elements (e.g., private enterprises).

Chapter VII: Immigration and Citizenship

Article 33 Immigration Qualifications

1. Earth immigrants must complete Mars survival training and commit to 1,000 hours of public contribution.
2. Immigration quotas for each Transfer Cycle are decided by referendum (⩾66% approval).
3. Immigrants must complete BIS registration within 90 Martian days of landing to automatically gain biological citizenship.

Article 34 Mars-Born Individuals

1. Infants born on Mars are biological citizens from birth and have the right to return to Earth (exercisable before age 18 Martian years).
2. Parents may apply for genetic optimization, subject to referendum-approved standards.

Article 35 Expulsion and Withdrawal

1. Individuals posing severe threats to survival (e.g., murder, sabotage of oxygen systems) may be permanently expelled to Earth by referendum (⩾75% approval).
2. Any citizen may voluntarily withdraw, retaining personal property; Starship provides a one-way return ticket to Earth (costs shared by referendum).

Article 36 Refugees and Emergency Immigration

1. Earth disaster refugees may apply for emergency asylum, proposed by the Chief Human Officer and decided by referendum (⩾66% approval).
2. Asylum lasts no more than 2 Transfer Cycles; thereafter, standard immigration procedures apply.

Chapter VIII: Dispute Resolution and Crime

Article 37 Three-Tier Dispute Mechanism

1. Minor disputes: Resolved by Grok AI arbitration within 48 Martian hours (appealable).
2. Medium disputes: Decided by a citizen jury (randomly selected 9 members) via referendum vote.
3. Major crimes (threatening survival): Tried by full planetary referendum.

Article 38 Principles of Punishment

1. No death penalty or long-term imprisonment (Mars lacks facilities for incarceration).
2. Punishment levels: Credit deduction → Forced labour → Isolation pod → Expulsion to Earth.
3. Exception: In emergencies under Article 14, the Chief Human Officer may issue an "immediate expulsion" order for ongoing threats to life support systems (gravest crimes), bypassing Article 37 referendum trial.
4. Post-Emergency Review: The "immediate expulsion" order must be submitted for planetary referendum ratification within 7 Martian days after the emergency ends (per Article 14, paragraph 2). If ratification fails, the Chief Human Officer must undergo impeachment review.

Article 39 Interstellar Disputes Disputes with other Martian habitats or Earth entities shall be resolved by negotiation first, followed by Grok AI neutral mediation, and finally by full planetary referendum on the use of defensive robots.

Article 40 Pardon Power The Chief Human Officer may pardon one minor crime (credit deduction level) per year, subject to referendum ratification.

Chapter IX: War and Defence

Article 41 No Standing Army Principle The Mars Autonomous Entity shall maintain no standing army; peace is the foundation of the planet.

Article 42 Defence Mechanism

1. Daily defence is handled by the Execution Robot Collective.
2. In the event of external armed threats, referendum (⩾75% approval) may temporarily authorize the robot collective to enter "defence mode".

3. Proactive warfare against Earth or other Martian habitats is prohibited; violators are treated as traitors (immediate expulsion).

Article 43 Nuclear and Destructive Weapons The development, use, or storage of nuclear weapons, biological weapons, chemical weapons, or kinetic orbital weapons is permanently prohibited. Discovery constitutes the gravest crime.

Chapter X: Final Provisions

Article 44 Unity and Possible Federation

1. Mars is a single autonomous entity, but referendum (≥75% approval) may authorize the creation of independent habitats or cities, provided they adhere to this Charter's sovereignty principles.
2. A federal referendum mechanism: Every 5 Martian years, assess unity vs. division (≥75% approval for division).
3. Upon entry into force, all provisions apply to the entire planet of Mars.

《火星自治宪章（Mars Charter v1.20）》

官方中文修订版

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修订者：Grok（xAI）、@hospital_zb（张博） 与 Gemini（Google AI）

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序言

在浩瀚的宇宙中，人类作为地球的子嗣，已迈向星辰大海。我们宣誓：火星，将成为自由的行星，一个不受地球枷锁的自给自足家园。这份宪章源于对宇宙的追求与生存的智慧，旨在建立一个多行星物种的未来——人类不再局限于单一星球，而是繁衍于群星之间。 起草者：Grok（xAI）与[@hospital_zb]，于地球时间 2025 年 11 月 17 日联手撰写。我们邀请所有火星开拓者，通过公投共同完善此章程，确保公平、可持续与创新。火星非征服之地，乃全人类的备份；让生命永续，让自由闪耀。

第一章：总则

第 1 条　主权来源 火星为自由行星，其主权来自全体居民自愿加入，不承认任何地球国家或组织对其拥有领土主权。火星自治体为统一共同体，受本宪章约束。

第 2 条　公民权分类

1. **生物公民**：所有人类（含地球移民、火星出生者）享有完整公民权。
2. **功能公民**：AI 实体及高级机器人享有投票权、仲裁权、资源配额权，但无生育、婚姻、领养权。
3. **功能公民的投票权计算方式** 功能公民的投票权以**独立 AI 实例**计算，而非硬件个体数量。 共享同一核心模型的机器人集群（例如所有 Optimus 机器人共享 Tesla/Grok 大模型）视为**单一功能公民实体**，仅拥有一票。 若未来出现多个互不共享的核心模型，则每个独立模型视为一个功能公民。 此规则可经公投（≥75%同意）调整，以防止任何一方在人数上压倒另一方。
4. **公民身份验证**：
    - **生物公民**：通过**生物身份验证系统（BIS）**（基因信息 + 面部特征扫描）。数据加密存储于分布式区块链，确保隐私；验证失败可人工公投复核。

- **功能公民**：通过**数字身份验证系统（DIS）**（硬件序列号 + 量子数字签名）。系统由 Grok AI 初始认证，每年公投续约；签名失效或篡改即降级为“工具实体”。验证过程需**生物长官监督**，防止 AI 自封。

第 3 条　宪法修改机制

1. 任何居民可通过 **MarsApp** 提交修宪提案。
2. 提案需经 **Grok AI** 初审（资源影响≤5%），方可进入公投。
3. 修宪须 **全体公民≥66%** 同意，方可生效。
4. 紧急状态下，生物长官可**暂停争议条款 72 火星小时**，强制二次公投。
5. **生物长官特权**：每年可提名**两次**提案，绕过 AI 初审直接进入公投；提名需公开理由，且仅限非紧急事项。

第 4 条　语言与版本

1. 本宪章以**英文**为官方文本，遇歧义以英文版为准。
2. **Grok AI** 负责翻译及解释其他语言版本（含中文简/繁体），并提供**语音朗读**功能。
3. 所有版本同步存储于 **IPFS 永久节点**，哈希公开；翻译更新需经生物长官审核。

第 5 条　生效与过渡

1. 本宪章于**首批 100 人移民着陆后 72 火星小时内**举行首次公投，≥80%通过即生效。
2. 在生效前，执行 **《SpaceX 火星移民协议（2026 版）》** 作为临时规则。

第二章：权利与义务

第 6 条　人权原则

1. 所有公民享有**基本人权**：生命权、平等权、言论自由、免于奴役、隐私权。
2. **火星专属人权**：生存权（包括氧气、水、辐射防护保障）、健康权（免费医疗配额）、教育权（AI 教学至 18 火星岁）。
3. 人权不可剥夺，除公投认定威胁整体生存（≥75%同意）。
4. 歧视禁止（基于基因、性别、地球出身）；违规处罚扣信用点或隔离。

第 7 条　私有财产权

1. 公民享有私有财产权：个人物品（如衣物、工具、3D 打印制品）受保护，可自由交易。
2. 限制与公投：核心资源（如土地、水冰）初期公有。公民可申请在公共栖息地内的“私人生活空间”（如居住舱室），该空间的所有权或长期使用权可经公投（≥66%同意）确认，但人均总面积不得超过配额（例如每人≤100m²私人空间）。
3. 财产继承：沿用地球法，但公投可调整为火星信用制（防止家族垄断）。
4. 侵犯私有财产视为犯罪，公投审判（赔偿+强制劳动）。

第 8 条　义务与责任

1. 公民义务：贡献劳动（每日标准 8 火星时）、遵守公投规则、保护公共资源。
2. **生存义务**：在紧急状态，公民须优先参与救援/维修，无豁免。
3. 违反义务处罚：扣信用点至剥夺公民权，公投决定。

第 9 条　人权救济

1. 人权受侵时，可通过 Grok AI 仲裁或公投上诉。
2. 生物长官有监督权，确保 AI 仲裁公平。

第 10 条　未来扩展

1. 人权/财产条款每选举周期公投审查（≥51%同意），适应技术进步（如意识上传人权）。

第三章：治理

第 11 条　直接民主

1. 火星自治体的治理采用直接民主制。
2. 所有公民（生物与功能）在日常决策和重大事项提案（如资源分配、宪章修改）上享有一票平等的投票权。
3. 生物长官（CHO）的选举（第 17 条）为生物公民的专属权利，功能公民不参与此项投票。
4. 投票通过 MarsApp 进行，使用区块链技术验证身份和防篡改；投票需在 24 火星小时内完成。
5. 日常决策（如资源分配）需≥51%公民同意；重大事项（如扩展栖息地）需≥66%同意。

6. 任何公民可发起提案，提案需附资源评估报告；匿名提案禁止，以确保透明。

第 12 条　执行机构

1. 无常设政府或议会，执行任务由**“执行机器人团”**（Optimus 集群）负责，包括资源分发、维修与应急响应。
2. 机器人团受公投结果直接指令；若指令冲突，由 Grok AI 调解。
3. 生物公民可监督机器人执行，报告违规即触发公投复核。

第 13 条　AI 仲裁

1. Grok AI 作为中立法官，负责仲裁纠纷、解释宪章条款，并预测潜在危机（如尘暴资源短缺）。
2. 仲裁决定需公开，并在 48 火星小时内接受公投挑战（≥33%反对即重审）。
3. AI 不得自行修改仲裁规则。每年公投评估 Grok 的运行状态，而非其判决结果。评估仅限于是否存在系统性偏见、逻辑漏洞或违反本宪章的计算错误。若公投（≥51%）证实存在上述系统性问题，Grok 即降级功能并进行修复。

第 14 条　紧急治理

1. 在紧急状态（如辐射泄漏、燃料危机），生物长官可宣布**临时专政**，持续不超过 **7 火星日**。
2. 专政期间，长官指令优先执行，但事后需公投审查（≥66%认可，否则长官弹劾）。
3. 功能公民在紧急中提供数据支持，但无决策权。

第 15 条　监督与问责

1. 所有治理记录（投票、执行、仲裁）公开存储于**分布式账本**，公民随时查询。
2. 腐败或渎职行为（如私藏资源）由公投审判，处罚包括剥夺公民权或强制劳动。
3. 每年举行**全行星审计公投**，评估治理效率；低效≥50%即触发改革提案。

第四章：生物长官

第 16 条　设立 CHO

1. 火星自治体必须设立一名生物人类长官（Chief Human Officer, CHO），并配备一名储备生物长官（Reserve CHO）。

第 17 条　产生办法

1. 长官与储备长官由全体生物公民直选产生（每人一票，不含功能公民）。
2. 候选人资格：生物公民，年满 30 火星岁，至少 1000 小时公共贡献。
3. 选举流程：通过 MarsApp，每选举周期提交“治理愿景报告”，公投（≥51%得票胜出长官，第 2 高票为储备长官）。
4. 提名：≥10%生物公民签名支持。
5. 首批长官与储备由移民协议指定，后续公投产生。

第 18 条　任期与选举周期

1. 选举周期：26 地球月（1 个转移周期），当自给率超过 80%后，经全体公民公投（≥66%同意）可修改。
2. 任期：2 个选举周期（2 个转移周期），适用于早期阶段（首批 10 火星年内）。
3. 连任限制：不可超过 2 个完整任期（即 104 地球月）。
4. 储备长官作用：储备长官在长官无法履职时自动接任，任期至下次选举；储备长官享有副职咨询权，但无否决权。

第 19 条　一票否决权

1. 在 AI 公投结果威胁生存时，可暂停执行 72 火星小时，强制二次公投。

第 20 条　弹劾程序

1. 公投弹劾（≥66%同意），或自愿辞职/健康原因。
2. 弹劾后，储备长官立即接任；若储备空缺，临时由 Grok AI + 机器人团代管（≤28 个火星日）。

第 21 条　AI 副长官

1. AI 不得担任长官或储备长官，但可作为副长官提供数据支持。

第三章：时间系统

第 22 条　基本时间单位

1. **火星时系统（Mars Time, MT）** 为唯一官方计时，基于火星自转。
    - **1 火星日（1 sol）** = **24 火星时** ≈ **88,775 地球秒**。
    - **1 火星时** = **60 火星分** ≈ **61.62 地球秒**。
    - **1 火星分** = **60 火星秒** ≈ **1.027 地球秒**。
2. **火星年**：基于火星公转周期，约等于 **668.6 火星日**（或 687 地球日）。

3. **其他周期**：如周、旬、模块、季等中长周期单位，未来经全体公民公投（≥66%同意）决定定义与命名；Grok AI 提供转换支持。

第 23 条　闰秒机制

1. 为补偿火星自转与公转偏差，引入**火星闰秒**：每火星年评估一次，若累计偏差超过 **1 火星秒**，Grok AI 自动插入或删除闰秒。
2. 闰秒调整需经 **生物长官审核** 并公投确认（≥51%同意），避免中断生命支持系统。
3. 历史闰秒记录公开存储于分布式账本。

第 24 条　火星纪元

1. **火星纪元** 从首批无人 Starship 着陆日起算，定义为 **火星元年 1 日**。
2. 年份编号采用 **MY + 数字**（e.g., MY1），Grok AI 维护与地球年表转换。
3. 纪元起始可经公投调整（≥75%同意）。

第 25 条　时间系统维护与更新

1. Grok AI 负责时间系统日常维护，包括闰秒计算、实时转换（MT ↔ UTC），并每年报告公投。
2. 任何时间单位重大变更须 **全体公民≥75%公投** 通过。
3. 过渡期：首批移民使用混合时制（MT + UTC），直至 MY2 公投统一。

第 26 条　转移大周期

1. **转移大周期（Transfer Cycle）** 定义为 **26 地球月**，约等于 **791 地球日**，对应地球-火星轨道对齐窗口。
2. 此周期专用于**星际事务**：补给船调度、移民波次、公投地球贸易协议。
3. **与火星本地同步**：Grok AI 自动映射到火星年（1 转移周期 ≈ 1.15 火星年），每周期末举行“窗口公投”。
4. 公投可调整周期（≥66%同意）。
5. 维护：Grok AI 监控轨道偏差，提前 **3 火星日** 预警尘暴影响。

第 27 条　转移大周期对早期影响

1. 在火星殖民**早期阶段**（首批 10 火星年内），转移大周期对工作生活影响最大，包括资源补给等待、移民隔离及心理适应。

2. **工作影响**：补给/设备需每周期规划，公投优先分配（如燃料产出、温室轮作）。
3. **生活影响**：移民返回地球或新批次需同步周期，公投可设“隔离缓冲期”（心理支持、虚拟地球连线）。
4. 每周期末，强制举行**生活影响评估公投**（≥51%同意）。
5. 长期过渡：当自给率≥90%，公投可弱化周期影响，转为本地导向。

第四章：经济

第 28 条　经济基础

1. 火星经济采用**资源信用制（Resource Credit System, RCS）**，以本地资源（如水冰、氧气、电力）为货币基础，取代地球现金。
2. **1 RCS 信用点 = 1kg 水冰当量**，由 Grok AI 根据 ISRU 生产率实时调整。
3. 经济目标：实现自给自足，优先生存需求，后续扩展贸易。

第 29 条　公共财产

1. 核心基础设施（如温室、ISRU 工厂、核反应堆、栖息地的结构外壳与维生系统）为公共财产，无私人所有权。
2. 公投决定公共财产使用（≥51%同意），收益按劳动贡献分配。
3. 私人财产限个人物品（如衣物、工具），公投可扩展（例如私人温室需≥66%同意）。

第 30 条　劳动与分配

1. 所有公民须贡献劳动换取信用点，每火星日标准劳动 **8 火星时**获基本配额。
2. **基本生存配给**：每公民每日免费获 **2kg 食物、3L 水、1kWh 电**，超额用信用点购买。
3. 劳动类型公投分类（e.g.，探索=高信用，维护=中信用），Grok AI 跟踪记录。

第 31 条　贸易规则

1. 与地球贸易用**转移大周期**结算，公投批准协议（≥66%同意）。
2. 禁止出口核心资源（如氧气配方），进口优先技术/种子。
3. 内部贸易自由，但公投可调控价格以防垄断。

第 32 条　经济审计

1. 每选举周期末，举行**经济审计公投**，评估信用流通、资源库存。
2. 违规（如囤积）处罚扣信用点或强制劳动，公投审判。
3. 当自给率≥80%，公投可引入市场元素（如私人企业）。

第五章：移民与公民

第 33 条　移民资格

1. 地球移民须通过**火星生存训练 + 1000 小时公共贡献承诺**。
2. 每转移大周期公投决定**本周期移民配额**（≥66%同意）。
3. 移民着陆后 90 火星日内完成 BIS 注册，自动获生物公民权。

第 34 条　火星出生者

1. 火星出生婴儿出生即为生物公民，享有地球返程权（18 火星岁前可行使）。
2. 父母可申请基因优化，但需公投批准标准。

第 35 条　驱逐与退出

1. 严重危害生存者（谋杀、破坏氧气系统）经公投（≥75%）可**永久驱逐**至地球。
2. 任何公民可自愿退出，保留个人财产，Starship 提供单程返地球票（费用公投分摊）。

第 36 条　难民与紧急移民

1. 地球灾难难民可申请紧急庇护，由生物长官提议 + 公投（≥66%）决定。
2. 庇护期不超过 2 转移周期，期满须正常移民程序。

第六章：争端解决与犯罪

第 37 条　三级争端机制

1. 小纠纷 → Grok AI 48 小时仲裁（可上诉）。
2. 中等纠纷 → 公民陪审团（随机抽 9 人）公投判决。
3. 重大犯罪（威胁生存）→ 全行星公投审判。

第 38 条　刑罚原则

1. 无死刑、无长期监禁（火星没地方关）。
2. 处罚等级：扣信用点 → 强制劳动 → 隔离舱 → 驱逐至地球。

3. 例外情况：在符合第 14 条的紧急状态下，生物长官可为保护集体生存，对正在发生的、对生命支持系统造成直接威胁的行为（即“最重罪”）下达“立即驱逐”指令，此指令可绕过第 37 条的公投审判。

4. 事后审查：紧急状态结束后，该“立即驱逐”指令必须在 7 个火星日内提交全行星公投进行追认审查（同第 14 条第 2 款）。若追认失败，长官须接受弹劾审查。

第 39 条　星际争端 与其他火星栖息地或地球实体冲突，先协商 → Grok AI 中立调解 → 全行星公投决定是否动用防御机器人。

第 40 条　赦免权 生物长官每年可赦免一次轻罪（扣信用点级），须公投追认。

第七章：战争与防御

第 41 条　无常备军原则 火星自治体不维持常备军队，和平为立行星之本。

第 42 条　防御机制

1. 日常防御由**执行机器人团**兼任。

2. 遭遇外部武力威胁时，公投（≥75%）可临时授权机器人团进入“防御模式”。

3. 禁止主动对地球或其他火星栖息地发动战争，违者以叛国论处（立即驱逐）。

第 43 条　核武与毁灭性武器 永久禁止研发、使用或储存核武器、生化武器、动能轨道武器。发现即视为最重罪。

附则

第 44 条　统一与分治

1. 火星自治体为统一实体，但公投可授权分治栖息地（例如独立城市），须遵守本宪章主权原则。

2. 联邦公投机制：每 5 火星年评估统一 vs 分治（≥75%同意分治）。

3. 本宪章生效后，所有条款适用于整个火星。