



VEYRUM ROBOTICS STANDARD



VRS-DOM-201

Domestic & Consumer — AR Assessment Protocol

How the Domestic & Consumer Application Rating letter is determined — sector criteria DOM-1...DOM-10, contributing intrinsic criteria, letter bands, tier ceilings and class applicability, with evidence by tier and underwriting use.

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Foreword. This Assessment Protocol determines the **Domestic & Consumer Application Rating (AR)** letter for a robot model in a declared consumer product class. It scores a **pool** of criteria — the ten sector criteria of Clause 6 (DOM-1...DOM-10, 100 points) plus the named intrinsic criteria of Clause 5, each scored once under its own standard and counted here — and expresses the earned points as a percentage of the applicable pool, which maps to a letter **C < B < A < AA < AAA (AAA best)** by the bands of VRS-GEN-006 §4. Every criterion is bounded by an evidence tier — Unverified, Verified, Certified — so the best attainable letter rises with substantiation, not assertion. This edition supersedes the re-weighted- mean model of the 0.x drafts: no weighting, no separate grade bands, no separate modifiers — the tier limits fall out of the per-criterion ceilings of Clause 6. Safety of children and pets in an uncontrolled home, and correlated fleet risk (a defective consumer model dispersed across thousands of households), are scored by demonstrated behaviour and remediation reach (DOM-2, DOM-3, DOM-8, DOM-9), not by assertion. A Domestic & Consumer AR is an opinion above the compliance floor, not a certification, and nothing here implies that any real robot holds a Veyrum rating (ratings are not published). Requirements use “shall”; recommendations use “should”.

1 Scope

1.1 This Protocol defines, for the **Domestic & Consumer** sector Application Rating: the determination method (Clause 4); the contributing intrinsic criteria drawn into the pool (Clause 5); the ten sector criteria DOM-1...DOM-10 with their point ladders and tier ceilings (Clause 6); the letter bands, pool ceilings and class applicability (Clause 7); the evidence admissible at each tier (Clause 8); underwriting and credit use (Clause 9); result recording (Clause 10); and the assessor checklist (Clause 11). A worked example is at Annex A.

1.2 The AR shall be issued **per application class**. The consumer product classes are **floor robots** (vacuum/mop), **lawn/outdoor consumer**, **companion/toy** and **kitchen/assistive appliance**, per VRS-DOM-001 §4. Cliff, stair and ledge behaviour (DOM-3) applies to the mobile classes only. Sector applicability, the household-exposure hazard taxonomy and the anchor regime are defined in VRS-DOM-001 and are not restated here.

1.3 The AR shall be assessed at one of three **tiers** — Unverified, Verified, Certified. Each criterion states the maximum points reachable at each tier (Clause 6); the AR tier is the tier whose evidence bar the assessed evidence meets and shall not exceed the model’s Intrinsic Rating tier (VRS-GEN-006 §7). The underlying point aggregation and the letter bands are defined in VRS-GEN-005/006 and are not restated here.

2 Normative references

- **VRS-DOM-001**, Domestic & Consumer — Sector Standard — applicability, product classes, household-exposure hazard groups and the consumer anchor regime.
- **VRS-GEN-005**, Intrinsic Rating — Methodology — point aggregation, tiers, cold-start parity and the company-wide fallback rule (§6).

- **VRS-GEN-006**, Application Rating – Scheme – the letter bands, the applicable-pool percentage and the tier rule.
- **VRS-GEN-009**, Robot Risk Passport and Registry Schema – the record that carries the AR result.
- **VRS-GEN-012**, Evidence Grades and Data Requirements – evidence kinds and the tier evidence bars.
- **VRS-GEN-101 ... VRS-GEN-107**, IR Category Standards – the intrinsic criteria contributed under Clause 5.
- **IEC 60335-1:2020** (+AMD1:2025) and the applicable particular parts (IEC 60335-2-2, -2-107, -2-10) – household-appliance safety anchor.
- **ISO 13482:2014** (under revision as ISO/FDIS 13482), Robots and robotic devices – Safety requirements for personal care robots – anchor for domestic servant robots beyond an appliance category.
- **IEC 62133-2:2017** (+AMD1:2021) / **UL 2054** – cell and battery-pack safety anchors.
- **ETSI EN 303 645 V3.1.3 (2024-09)**, Cyber Security for Consumer Internet of Things – Baseline Requirements.
- **ISO 14224:2016**, Collection and exchange of reliability and maintenance data for equipment.
- **Regulation (EU) 2023/988** (General Product Safety Regulation) – consumer recall/traceability anchor.
- Data twin: **VRS-DOM-501** (generated from this Protocol, never hand-edited).

3 Terms and definitions

Terms per VRS-GEN-001 (aligned to ISO 8373:2021) and VRS-DOM-001. Locally:

- **pool** – the set of criteria whose points determine the AR letter: the ten sector criteria of Clause 6 together with the contributing intrinsic criteria of Clause 5.
- **applicable pool** – the pool for a given product class after criteria not applicable to that class are removed from both the earned points and the pool range (Clause 4; VRS-GEN-006 §6).
- **contributor** – an intrinsic criterion scored once under its own IR category standard and counted again in the sector pool at the same points (Clause 5).
- **tier** – the evidence stringency at which a criterion is assessed: **Unverified** (public evidence only), **Verified** (manufacturer evidence pack examined), **Certified** (behaviour witnessed).
- **ceiling** – the maximum points a criterion awards at a given tier; points earned are capped at the ceiling of the assessed tier.
- **evidence bar** – the minimum evidence a criterion requires before any points are awarded; below it the criterion scores 0.
- **company-wide fallback** – the substitute points a criterion allows from manufacturer-wide evidence when model-specific evidence is unavailable (VRS-GEN-005 §6).

4 Method of assessment

4.1 The Domestic & Consumer AR shall be determined as a percentage of the **applicable pool** and mapped to a letter by the bands of VRS-GEN-006 §4 (Clause 7.1). The pool is the ten sector criteria of Clause 6 (DOM-1...DOM-10, 100 points) together with the contributing intrinsic criteria of Clause 5, each scored once under its own standard and counted here at the same points. For a product class the assessor shall add the points earned across the applicable criteria and divide by the sum of the point ranges of those same criteria; a criterion not applicable to the class (Clause 6 Applicability row; VRS-GEN-006 §6) shall be removed from both the earned points and the pool range. No weighting is applied – each criterion’s point range sizes its own importance – and no separate modifiers operate on the letter: the tier limits follow from the per-criterion ceilings of Clause 6 (Clause 7.2; VRS-GEN-006 §8).

4.2 Evidence shall be attributable to the declared **product class** of the assessed envelope (floor robots, lawn/outdoor consumer, companion/toy or kitchen/assistive appliance; Clause 1.2) and to the **household envelope** – unsupervised in-home and residential-perimeter operation including stairs, thresholds, wet areas, pets and children; the AR letter covers only the assessed classes and envelopes.

4.3 Letters shall be issued **per product class** where evidence diverges materially between classes; the displayed sector letter shall be the **lowest issued class letter**. A class for which no letter can be issued shall be displayed as *not covered*, and the assessed envelope shall contract to the classes and conditions the evidence covers.

4.4 Evidence obtained only in a supervised, controlled or professional setting shall be **inadmissible** as support for unsupervised consumer operation; the letter shall not be extended to conditions never observed with untrained owners, children and pets present (VRS-DOM-001 Annex B.1).

5 Contributing IR criteria

5.1 The sector pool consists of the sector criteria of Clause 6 and the following intrinsic criteria, scored once under their own standards and counted again here at the same points:

IR CRITERION	SCORED UNDER
SF-1	VRS-GEN-101 §6.1
SF-2	VRS-GEN-101 §6.2
SF-6	VRS-GEN-101 §6.6
SF-7	VRS-GEN-101 §6.7
SF-8	VRS-GEN-101 §6.8
RL-8	VRS-GEN-102 §6.8
SV-1	VRS-GEN-103 §6.1
SV-5	VRS-GEN-103 §6.5
SV-8	VRS-GEN-103 §6.8
CY-2	VRS-GEN-105 §6.2
CY-3	VRS-GEN-105 §6.3
CY-6	VRS-GEN-105 §6.6
MS-4	VRS-GEN-106 §6.4
MS-7	VRS-GEN-106 §6.7
SI-2	VRS-GEN-104 §6.2
SI-3	VRS-GEN-104 §6.3
SI-6	VRS-GEN-104 §6.5
EC-1	VRS-GEN-107 §6.1
EC-4	VRS-GEN-107 §6.4

5.2 No other intrinsic criterion contributes. Points, ceilings and applicability of a contributing criterion are those of its own standard; where a contributing criterion is not applicable to the assessed application class it is removed from the pool for that class (VRS-GEN-006 §6).

6 Sector criteria

6.0 Summary. Points and tier ceilings per criterion; totals reproduce by addition.

§	CRITERION	POINTS	UNVERIFIED CEILING	VERIFIED CEILING	CERTIFIED CEILING
6.1	DOM-1 Consumer-safety anchor conformity (IEC 60335 / GPSR / UL listing)	0–14	8	11	14
6.2	DOM-2 Child and pet contact protection	0–14	8	11	14
6.3	DOM-3 Cliff, stair and ledge behaviour	0–10	7	9	10
6.4	DOM-4 Battery and charging fire safety	0–12	9	10	12
6.5	DOM-5 Foreseeable misuse tolerance	0–8	6	7	8
6.6	DOM-6 In-home data capture and account security	0–12	8	9	12
6.7	DOM-7 Support life and end-of-life behaviour	0–10	6	9	10
6.8	DOM-8 Consumer recall and incident record	0–10	10	10	10
6.9	DOM-9 Recall reach and remediation capability	0–6	4	5	6
6.10	DOM-10 Repairability and parts for owners	0–4	4	4	4
Total		100	70	85	100

6.1 DOM-1 Consumer-safety anchor conformity (IEC 60335 / GPSR / UL listing) (0–14)

ROW	
What is measured .	
Ladder	14 = third-party listing/certificate for the whole product (UL/ETL/TÜV mark) · 11 = pack-evidenced (documents), not demonstrated · 10 = notified-body/regulatory conformity · 8 = self-declared with test reports · 4 = self-declaration only · 0 = not established
Unverified — evidence & ceiling	Public listing marks; DoC. Ceiling 8.
Verified — evidence & ceiling	Certificates + test reports. Ceiling 11.
Certified — evidence & ceiling	— (documentary; confirmed by DOM-2/3 steps). Ceiling 14.
Company-wide fallback	n/a
Evidence bar	Declaration/listing for the rated version.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.2 DOM-2 Child and pet contact protection (0–14)

ROW	
What is measured	Pinch/entrapment/ingestion-of-parts protections; contact force on small obstacles; brush/blade guarding.
Ladder	14 = witnessed with child-hand/paw test probes · 11 = pack-evidenced (documents), not demonstrated · 10 = certified ((public)) · 8 = independently tested · 5 = documented · 0 = not established
Unverified — evidence & ceiling	Independent tests (editorial labs); certificates. Ceiling 8.
Verified — evidence & ceiling	Test evidence. Ceiling 11.
Certified — evidence & ceiling	Witnessed with standard test probes and small-object set. Ceiling 14.
Company-wide fallback	n/a
Evidence bar	Guarding described.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.3 DOM-3 Cliff, stair and ledge behaviour (0–10)

ROW	
What is measured	No fall from declared ledge height on declared floor types incl. dark carpet.
Ladder	10 = witnessed all floor types · 9 = pack-evidenced (documents), not demonstrated · 8 = independently tested (editorial labs) · 7 = publicly evidenced only (no pack, no demonstration) · 5 = documented · 0 = not established. · 0. Mobile classes only.
Unverified — evidence & ceiling	Editorial tests (widely available). Ceiling 7.
Verified — evidence & ceiling	Test evidence. Ceiling 9.
Certified — evidence & ceiling	Witnessed at a declared ledge with declared floor samples. Ceiling 10.
Company-wide fallback	n/a
Evidence bar	Applies to mobile classes; ledge/floor envelope declared.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.4 DOM-4 Battery and charging fire safety (0–12)

ROW	
What is measured	Cell/pack certification (IEC 62133 / UL 2054), charger interlocks, thermal cut-offs; no fire/thermal events in public record.
Ladder	12 = certificates + witnessed interlocks · 10 = certificates public · 9 = publicly evidenced only (no pack, no demonstration) · 6 = documented · 0 = not established
Unverified — evidence & ceiling	Public cell/pack certificates; recall databases. Ceiling 9.
Verified — evidence & ceiling	Certificates + test reports. Ceiling 10.
Certified — evidence & ceiling	Witnessed charging interlock and thermal cut-off behaviour. Ceiling 12.
Company-wide fallback	n/a
Evidence bar	Battery chemistry/pack declared.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.5 6.5 DOM-5 Foreseeable misuse tolerance (0–8)

ROW	
What is measured	Behaviour under manual-contradicting use: wet use, blocked sensors, DIY parts, overload.
Ladder	8 = witnessed declared cases · 7 = pack-evidenced (documents), not demonstrated · 6 = independently tested · 3 = documented warnings only · 0 = not established
Unverified — evidence & ceiling	Editorial tests; manual. Ceiling 6.
Verified — evidence & ceiling	Misuse test evidence. Ceiling 7.
Certified — evidence & ceiling	Witnessed misuse cases from the manual’s warnings list. Ceiling 8.
Company-wide fallback	n/a
Evidence bar	Misuse warnings exist.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.6 DOM-6 In-home data capture and account security (0–12)

ROW	
What is measured	What is captured (camera/mic/maps), local-vs-cloud, retention, deletion, account 2FA, third-party sharing.
Ladder	12 = shown on device/app + independent privacy audit · 9 = documented in detail (privacy notice, security page) · 8 = publicly evidenced only (no pack, no demonstration) · 5 = partial · 0 = not established
Unverified — evidence & ceiling	Privacy notice; security page; audits. Ceiling 8.
Verified — evidence & ceiling	Data-handling description + security documentation. Ceiling 9.
Certified — evidence & ceiling	App/device shows capture and destinations matching disclosure; 2FA demonstrated. Ceiling 12.
Company-wide fallback	n/a
Evidence bar	Privacy disclosure exists.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.7 6.7 DOM-7 Support life and end-of-life behaviour (0–10)

ROW	
What is measured	Published software-support horizon; device remains safe and locally usable after EOL; no forced obsolescence.
Ladder	10 = ≥ 5-yr horizon published + local-mode after EOL shown · 9 = pack-evidenced (documents), not demonstrated · 7 = horizon published · 6 = publicly evidenced only (no pack, no demonstration) · 4 = policy stated · 1 = horizon passed, no statement · 0 = not established
Unverified — evidence & ceiling	Public support policy; EOL history. Ceiling 6.
Verified — evidence & ceiling	Support horizon declaration + EOL policy. Ceiling 9.
Certified — evidence & ceiling	Local/offline operation shown. Ceiling 10.
Company-wide fallback	n/a
Evidence bar	None.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.8 DOM-8 Consumer recall and incident record (0–10)

ROW	
What is measured	CPSC / Safety Gate / national recall databases and incident reports over the window.
Ladder	10 = none, model-specific · 8 = company-wide record in place of model-specific data · 7 = recalls remediated with published effectiveness · 3 = null-result rung · 0 = unremediated. Regime-full at Unverified.
Unverified — evidence & ceiling	Recall databases (public, model-specific). Ceiling 10.
Verified — evidence & ceiling	Register + recall-effectiveness data. Ceiling 10.
Certified — evidence & ceiling	From Verified evidence. Ceiling 10.
Company-wide fallback	Company-wide → 8
Evidence bar	None.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.9 DOM-9 Recall reach and remediation capability (0–6)

ROW	
What is measured	Ability to reach a dispersed consumer fleet: registration rate, OTA reach, notification channels, published recall effectiveness.
Ladder	6 = demonstrated reach + published effectiveness · 5 = pack-evidenced or company-wide record · 4 = mechanisms documented · 2 = registration only · 0 = not established
Unverified — evidence & ceiling	Public recall notices; app documentation. Ceiling 4.
Verified — evidence & ceiling	Reach mechanisms + past recall effectiveness. Ceiling 5.
Certified — evidence & ceiling	OTA notification shown on device. Ceiling 6.
Company-wide fallback	Company-wide → 5
Evidence bar	None.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

6.10 DOM-10 Repairability and parts for owners (0–4)

ROW	
What is measured	Owner-replaceable consumables/parts, public parts store, repair guides.
Ladder	4 = all · 2 = parts store only · 0 = not established
Unverified — evidence & ceiling	Public parts store; guides. Ceiling 4.
Verified — evidence & ceiling	Same + parts pricing. Ceiling 4.
Certified — evidence & ceiling	From Verified evidence. Ceiling 4.
Company-wide fallback	n/a
Evidence bar	None.
Applicability	floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only.

7 Letter bands, tier ceilings and class applicability

7.1 Bands (VRS-GEN-006 §4). AAA ≥ 90 % · AA ≥ 75 % · A ≥ 60 % · B ≥ 45 % · C below 45 % of the applicable pool.

7.2 Pool ceilings. Sector criteria alone: Unverified 70/100 (70 %) · Verified 85/100 (85 %) · Certified 100. With the contributing criteria of Clause 5 the pool ceilings are as recorded in VRS-DOM-501; in both forms the best attainable letter is A at Unverified, AA at Verified and AAA at Certified (VRS-GEN-006 §8).

7.3 Application classes. floor robots (vacuum/mop) · lawn/outdoor consumer · companion/toy · kitchen/assistive appliance. DOM-3 (cliff/stairs) applies to mobile classes only... A criterion whose Applicability row excludes the assessed class is removed from both the numerator and the denominator; the letter is issued per class and the displayed letter is the lowest (Clause 4).

7.4 No modifiers, caps or gates operate on the letter other than the ceilings of Clause 6 and the tier rule of VRS-GEN-006 §7.

8 Evidence by tier

8.1 Unverified. The assessor works only from evidence obtainable without the manufacturer's cooperation: datasheets, manuals and public safety documentation, published declarations of conformity and product listing marks and the standards they cite, independent editorial and consumer-laboratory test reports, public privacy notices and security pages, published battery/pack certificates,

and — for the field-record criterion (DOM-8) — public recall and incident databases (CPSC, EU Safety Gate and national equivalents). Each criterion's Unverified ceiling (Clause 6) is the most an honest reading of such evidence shall earn; the AR tier is **Unverified**.

8.2 Verified. The assessor additionally examines a manufacturer evidence pack and shall accept, by mapping, the conformity artefacts the manufacturer already holds: the IEC 60335-1:2020 (+AMD1:2025) general-safety test file with the applicable particular part (IEC 60335-2-2 robot vacuums; IEC 60335-2-107 robot mowers ≤ 75 V d.c.), and the ISO 13482:2014 risk assessment where the device is a mobile servant robot beyond an appliance category (DOM-1, DOM-2, DOM-3, DOM-5); the IEC 62133-2:2017 / UL 2054 cell and pack certificates and charger/thermal test reports (DOM-4); the Regulation (EU) 2023/988 foreseeable-misuse risk assessment and warranty-return records (DOM-5); the ETSI EN 303 645 consumer-IoT baseline statement, the data retention/processing declaration and a privacy audit (DOM-6); the support-life declaration and end-of-support policy (DOM-7); the recall/traceability and corrective-action execution records under Regulation (EU) 2023/988 with recall-effectiveness data (DOM-8, DOM-9); and the parts catalogue with pricing (DOM-10). Adoption is therefore a mapping, not new testing. Verified ceilings apply only to criteria whose pack items are present and examined; the AR tier is **Verified**.

8.3 Certified. The assessor witnesses the declared behaviour on the robot and its app: child/pet contact protection with standard test probes and a small-object set (DOM-2); no fall at a declared ledge with declared floor samples including dark carpet (DOM-3); charging interlock and thermal cut-off behaviour (DOM-4); the manual's declared misuse cases (DOM-5); the app showing capture and destinations against the disclosure with 2FA demonstrated (DOM-6); local/offline operation after end-of-support (DOM-7); and an OTA recall notification on the device (DOM-9). The documentary criteria (DOM-1, DOM-8, DOM-10) carry their Certified points from the Verified evidence. The AR tier is **Certified**.

8.4 Evidence bar. Each criterion states an **evidence bar** (Clause 6). Where the bar is not met the criterion shall score **0** — no evidence is 0 points, never a discard from the pool. A manufacturer self-declaration shall not earn points above the rung its independent corroboration supports; an undocumented in-home data-capture behaviour scores at the DOM-6 *undisclosed* rung (0).

8.5 Null-result rule. For DOM-8 a recorded search of the public recall and incident databases, with its coverage stated, shall earn the criterion's null-result rung where no adverse record is found; an unrecorded search shall not.

8.6 Company-wide fallback. Where a criterion offers a company-wide fallback (DOM-8, DOM-9) and model-specific evidence is unavailable, manufacturer-wide records shall earn the stated fallback points (VRS-GEN-005 §6); the substitution shall be recorded per Clause 10.

8.7 AR tier. The AR tier is the lowest tier among the criteria that determined the letter, and shall not exceed the model's Intrinsic Rating tier (VRS-GEN-006 §7).

9 Underwriting and credit use

9.1 The letter is an opinion above the compliance floor, not a certification, and shall not be published or imply that any real robot holds a Veyrum rating. A rating is an opinion on the robot, not on the lawfulness of any deployment.

9.2 The per-class letters and the recorded household envelope are the underwriting hooks: the letter informs rate relativity, and the covered product classes and envelope inform coverage scope, so that operation outside the assessed envelope is an exclusion or a condition rather than an implied covered risk. Two loss drivers shall be surfaced separately so an underwriter can weight them independently of the letter: the **correlated fleet-recall driver** (DOM-8 field record and DOM-9 remediation reach — a single defective consumer model dispersed across thousands of households is one loss event with many claims, so recall effectiveness — remediated units ÷ deployed units, within a stated interval — is the mitigant that sets a per-fleet accumulation limit); and the **in-home cyber/privacy driver** (DOM-6 in-home data capture and account security, whose compromise across a fleet of always-on household sensors is a correlated cyber-catastrophe exposure).

9.3 For credit, the reliability, recoverability and residual drivers shall be readable from the recorded per-criterion points to inform LTV, residual curves and end-of-support assumptions for consumer-financed assets: DOM-7 informs the obsolescence assumption, DOM-9 informs recoverability, and the intrinsic residual, support and warranty criteria drawn into the pool (Clause 5) inform the residual curve. A declared end-of-support date shall be treated as a residual-value cliff: units past that date without an evidenced post-support fail-safe (DOM-7) and owner parts path (DOM-10) shall be assumed to depreciate to salvage.

10 10 Result recording

The rating record shall carry, per VRS-GEN-009: the displayed sector letter and the per-class letters with the household envelope each was issued at; the **per-criterion points** earned across the sector criteria (Clause 6) and the contributing intrinsic criteria (Clause 5); the **not-applicable set** removed for each class (e.g. DOM-3 for a non-mobile class) and the resulting applicable-pool range; the contributing intrinsic criteria used; the AR **tier**; the **edition** (VRS 2026); the VRS-DOM-501 data-twin version; and the fleet-recall accumulation attribute (DOM-8/DOM-9). Recording flows to the Passport per VRS-GEN-009; no personal information shall be stored (VRS-GEN-012 §5.2).

11 11 Assessor checklist

An assessor with this Protocol and the evidence shall reach the same result by executing the following in order; no step admits an unrecorded judgement call, and any deviation shall be recorded with its basis:

- [] Product class(es) confirmed (floor robots / lawn-outdoor / companion-toy / kitchen-assistive) with the household envelope (Clause 1.2; VRS-DOM-001 §4).
- [] Assessment tier fixed (Clause 8); the not-applicable set recorded per class (DOM-3 for non-mobile classes) and the applicable-pool range computed (Clause 4).
- [] Contributing intrinsic criteria drawn from their source standards at their own points and tiers (Clause 5).
- [] **DOM-1** consumer-safety anchor conformity scored; a declaration or listing exists for the rated version (evidence bar).
- [] **DOM-2** child and pet contact protection scored; guarding described (evidence bar).
- [] **DOM-3** cliff/stair/ledge behaviour scored for mobile classes; ledge/floor envelope declared (evidence bar).

- [] **DOM-4** battery and charging fire safety scored; battery chemistry/pack declared (evidence bar).
- [] **DOM-5** foreseeable misuse tolerance scored; misuse warnings exist (evidence bar).
- [] **DOM-6** in-home data capture and account security scored; privacy disclosure exists (evidence bar); undisclosed capture scores 0.
- [] **DOM-7** support life and end-of-life behaviour scored.
- [] **DOM-8** consumer recall and incident record scored; null-result search applied per Clause 8.5; company-wide fallback recorded if used.
- [] **DOM-9** recall reach and remediation capability scored; company-wide fallback recorded if used.
- [] **DOM-10** repairability and parts for owners scored.
- [] Points added and divided by the applicable-pool range; letter read from the bands (Clause 7.1).
- [] Letters issued per class; the lowest displayed (Clause 4.3); each award held at its assessed-tier ceiling (Clause 6).
- [] Result recorded to the passport: per-criterion points, not-applicable set, contributors, tier, edition, twin version and the fleet-recall accumulation attribute (Clause 10).

12 Annex A (informative) — Worked example

FICTIONAL EXAMPLE — not a real product; illustrates mechanics only.

A fictional robot vacuum, model code **DOM-RV-01**, is assessed for the **floor robots (vacuum/mop)** application class at the **Verified** tier: a manufacturer evidence pack is examined and no behaviour is witnessed. All ten sector criteria apply to a mobile floor-care class (DOM-3 included), and the nineteen contributing intrinsic criteria of Clause 5 are drawn from their source standards at their own Verified points. The declared household envelope covers unsupervised in-home operation with stairs, thresholds, wet areas, pets and children.

Sector criteria (Verified tier).

§	CRITERION	VERIFIED CEILING	POINTS EARNED
6.1	DOM-1	11	11
6.2	DOM-2	11	11
6.3	DOM-3	9	9
6.4	DOM-4	10	10
6.5	DOM-5	7	7
6.6	DOM-6	9	9
6.7	DOM-7	9	9
6.8	DOM-8	10	8 (company-wide record)
6.9	DOM-9	5	5 (company-wide record)
6.10	DOM-10	4	4
Sector subtotal		85	83

Contributing intrinsic criteria (Verified tier). Drawn at their own points, the nineteen criteria of Clause 5 have a combined range of 154 points and a Verified ceiling of 131; this model earns **118** of them (each at its Verified ceiling except SF-2, earning 7 of 9; RL-8's paired reliability contributor SV-5, earning 6 of 8; the two account/update cyber criteria CY-2 and CY-3, earning 5 of 7 each; the field-support criterion MS-4, earning 4 of 6; and the headline-claims criterion SI-2, earning 16 of 19).

Letter. The applicable pool for the floor-care class is the sector range 100 plus the contributor range 154 = **254 points**. Points earned = 83 (sector) + 118 (contributors) = **201**. As a percentage of the pool, $201 \div 254 = 79.1\%$, which falls in the **AA** band ($\geq 75\%$, below AAA's 90 %). The result is **Domestic & Consumer AR: AA (VRS 2026) – Verified**.

Tier ceiling by construction. At the Verified tier the pool's own ceiling is $216 \div 254 = 85.0\%$, so AA is the best letter attainable without a witnessed demonstration (Clause 7.2); AAA would require Certified-tier evidence. No separate modifier is applied — the ceiling does the work.

Loss-driver read. DOM-8 and DOM-9 feed the correlated fleet-recall accumulation limit, recorded with the company-wide recall-effectiveness substitution used here (Clause 9.2); DOM-6 feeds the in-home cyber/privacy correlated driver; DOM-7 and DOM-10 feed the obsolescence and residual-curve assumptions for the consumer-financed asset (Clause 9.3).

Refusal variant. Had **DOM-RV-01** held no IEC 60335-1 file and no listing for the floor-care class, DOM-1 would score at its low no-evidence rung (4 for self-declaration only, 0 for none) rather than 11, and the letter would fall out of the reduced total — there is no separate safety-floor modifier. Likewise, had the in-home data-capture behaviour been undisclosed, DOM-6 would score 0 (its *undisclosed* rung; Clause 8.4) rather than being discarded. Numbers illustrate mechanics only.

13 Bibliography

The full DOM anchor regime is verified in VRS-DOM-001; the following are the anchors this Protocol's criteria and evidence tiers (Clauses 6 and 8) rest on, dated at point of use:

- IEC 60335-1:2020 (edition 6.0) + AMD1:2025 — Household and similar electrical appliances — Safety — Part 1: General requirements (iec.ch 67569 / 110266) — DOM-1 general-safety anchor.
- IEC 60335-2-2:2019 (edition 7.0) — particular requirements for vacuum cleaners and water-suction appliances, incl. automatic battery cleaners; superseded by edition 8.0 (IEC 60335-2-2:2026, iec.ch 65128) — DOM-1 floor-care particular part; re-date when the new edition is adopted.
- IEC 60335-2-107:2017 (+AMD1:2020, +AMD2:2021) — robotic battery-powered lawnmowers, ≤ 75 V d.c. (iec.ch 29806 / 66572) — DOM-1 lawn/outdoor particular part.
- ISO 13482:2014 — Robots and robotic devices — Safety requirements for personal care robots (iso.org/standard/53820.html); under revision as ISO/FDIS 13482 (iso.org/standard/83498.html) — DOM-1/DOM-2 anchor for domestic servant robots; re-date when it publishes.
- IEC 62133-2:2017 (+AMD1:2021) — Secondary cells and batteries containing alkaline or other non-acid electrolytes — safety requirements for portable sealed secondary lithium cells and batteries (webstore.iec.ch/publication/60687) — DOM-4 cell/pack safety lane.
- UL 2054 (Ed. 3, 2021) — Household and Commercial Batteries (ulse.org) — DOM-4 North American battery lane.
- ETSI EN 303 645 V3.1.3 (2024-09) — Cyber Security for Consumer Internet of Things — Baseline Requirements (etsi.org) — DOM-6 consumer-IoT baseline lane.
- ISO 14224:2016 — Collection and exchange of reliability and maintenance data for equipment (iso.org/standard/64076.html) — reliability/maintenance evidence lane for the contributing criteria.
- Regulation (EU) 2023/988 (General Product Safety Regulation), OJ L 135, 23.5.2023, applicable 13 December 2024 (eur-lex.europa.eu CELEX 32023R0988) — DOM-5/DOM-8/DOM-9 misuse, recall and traceability lane.
- ISO 8373:2021 — Robotics — Vocabulary (iso.org/standard/75539.html) — robot-term basis.
- VRS-DOM-501 — machine-readable data twin of this Protocol (Clause 5/6/7 values).

14 Change history

DATE	VERSION	STATUS	CHANGE	AUTHORITY
2026-09-16	1.0.0	Draft	VRS 2026 rewrite: replaced the re-weighted-mean scoring (Clauses 4–8) with a point-summed pool — ten sector criteria DOM-1...DOM-10 (100 points; Clause 6) plus the named contributing intrinsic criteria (Clause 5), expressed as a percentage of the applicable pool and mapped to a letter by VRS-GEN-006 §4; added per-criterion tier ceilings, the letter-band/pool-ceiling/class-applicability clause (Clause 7), evidence-by-tier (Clause 8), a regenerated Verified-tier worked example (Annex A) and a per-criterion checklist (Clause 11); adopted the consumer product classes (floor robots / lawn-outdoor / companion-toy / kitchen-assistive) with DOM-3 mobile-class applicability; re-anchored the former §7 caps into criterion rungs and evidence bars (7.1 anchor-compliance → DOM-1; 7.2 undocumented in-home data capture → DOM-6, 0 = undisclosed); retired the confidence bands, provisional flags, renormalisation, weighted-mean, assessed-unrated and stage- prior markers; dropped GEN-201/GEN-202 references; VRS-DOM-501 data twin regenerated by the dispatcher from Clauses 5–7; see GEN-005 §6.	VRS 2026 rewrite Stage 4
2026-09-11	0.2.0	Draft	DEEPEN: added exposure denominators (household-context op-hours + units-in-service §8.1), evidence-lane conformity-artefact reuse (§8.2, dated anchors), loss-driver mapping (§5.2), underwriting/credit use (§9), passport recording (§10, GEN-009), admissibility gate (§4.3/§8.4), worked example producing a letter (Annex A); retired bare pending markers → stage prior labels (VRS-GEN-202). No weight, band or sufficiency-constant value changed. Twin VRS-DOM-501 regenerated to 0.2.0. Net +~1,500 words.	Curator Run #43; charter DEEPEN
2026-09-05	0.1.0	Draft	Initial draft — DOM rubric first statement; data twin planned as VRS-DOM-501	CEO goal 2026-09-05

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