MARTIAL SYSTEMS LLC

Big Red Button
Product Ownership, Asset Inventory & Terms of Use Package

Document type: Internal product counsel review package
Product: Big Red Button (experimental SPY 0DTE short-hold tape helper / financial game surface)
Owner: Martial Systems LLC
Business location (stated for venue): Lake County, Indiana, United States
Document date: 2026-07-28 (revised: Schwab plan + residual risk notes)
Classification: Confidential — for legal review and internal records
Status of online product: Development / limited access (not linked from the public Martial Systems research site navigation)
Audio: Sound assets intentionally excluded from ownership analysis pending rights clearance

Important notice to reviewing counsel. This document is a factual inventory and consolidated transcription of currently deployed user-facing disclosures and Terms of Use, plus engineering ownership notes and a planned Charles Schwab Trader API integration. It is intended to assist licensed counsel in verifying completeness and risk posture. **This package is not legal advice to end users, does not create an attorney-client relationship with the public, and is not a substitute for independent legal review.** Section 8 records residual soft spots for eyes-open operation if formal counsel is deferred.

1. Purpose and scope

Martial Systems LLC develops quantitative research software and experimental product surfaces related to markets. Big Red Button is an experimental “financial game” style surface: a cartoon single-button interface that returns short-horizon, model-based call/put lean estimates for SPY options expiring the same trading day (0DTE). The product is free of charge, labeled experimental, and designed so spam presses do not multiply backend market-data requests.

This package covers: (a) what was built; (b) ownership and IP posture; (c) visual/software asset inventory (excluding sound effects); (d) third-party infrastructure and data sources; (e) **planned Schwab Trader API integration after developer access is approved**; (f) residual soft spots for risk awareness; (g) full first-press acceptance disclosures; (h) full footer Terms of Use; and (i) repository LICENSE text.

2. Product description (factual build summary)

2.1 User-facing behavior

- Static front end on Cloudflare Pages (big-red-button; https://big-red-button.pages.dev).
- Cartoon stage; results in a modal window; first-press disclosure gate (“I Understand and Agree”).
- Client cool-down: extra presses stay local (cached payload + countdown); one real API fetch per cool-down window.
- Cool-down (default ~5s) is distinct from the ~2-minute hold used only in lean math.
- Not linked from public Martial Systems research site navigation (dev-only discovery).

2.2 Technical architecture

- Private repo ile1/big_red_button; front end public/ HTML/CSS/JS; backend Flask in backend/ on Google Cloud Run (us-central1), single worker for shared cache.
- Provider interface: Yahoo HTTP (live interim), yfinance (legacy), snapshot JSON (after-hours/dev), auto (Yahoo then snapshot), SchwabProvider stub for post-approval activation.
- CORS allowlist for Martial Systems Pages + localhost; no brokerage secrets in git.

2.3 Model / methodology (non-advisory)

- Short-horizon expected move from recent 1-minute realized vol, scaled to configurable hold minutes (default 2)—not classic expiration POP.
- Normal lean above/below three nearest 0DTE strikes; weak last-candle bias; ET liquidity messaging + wide-spread escalation.
- All percentages are heuristic model outputs, labeled non-advisory in Terms.

3. Ownership and intellectual property posture

Martial Systems LLC asserts exclusive ownership of Big Red Button as proprietary work product (software, configuration, documentation, product/legal copy, original visual design in code), subject only to third-party items in Section 5. Sound effects are excluded from this claim package pending rights review.

3.1 Copyright notices

- LICENSE: Copyright (c) 2026 Martial Systems LLC. All rights reserved. Proprietary; AS IS.
- Source/site file headers and site footer copyright 2026 Martial Systems LLC.

3.2 Work product created for this product

- SPEC, Flask backend (providers, cache, math, API), cartoon front end, acceptance gate, Cloud Run/Pages deploy, session snapshot for dev, this PDF package.

3.3 Claim of ownership (summary for counsel)

Unless third-party (Section 5): original source, product/legal text, CSS/SVG design, product name “Big Red Button” in this project context (trademark clearance recommended), and compilation of the Service as a whole.

4. Asset inventory (excluding sound effects)

Sound effect files are intentionally omitted from ownership representations herein pending rights clearance.

Asset	Location	Ownership note
UI chrome, game stage, modal, disclosure UI	public/index.html, site.css	Original code/CSS; proprietary Martial Systems LLC.
Favicon	public/favicon.svg	Hand-authored SVG; proprietary.
API config	public/api-config.js	Original; Cloud Run URL wiring.
Typography	Google Fonts link	Bangers, Fredoka, IBM Plex; verify OFL/Apache terms for distribution.
Emoji UI glyphs	Unicode in HTML	Not shipped image files; device fonts render.

5. Third-party infrastructure, libraries, and data

- Hosting: Cloudflare Pages (static), Google Cloud Run (API), GitHub private source.
- Backend deps (requirements.txt): Flask, Flask-CORS, gunicorn, requests, yfinance (legacy path), and transitive licenses.
- Interim market data: public/undocumented Yahoo Finance HTTP endpoints (ToS/rate-limit risk; disclaimers address accuracy not provider ToS).
- Dev snapshot: backend/data/snapshot_spy_0dte.json.
- Marks of others (SPY/SPDR, exchanges, OCC, Schwab, Yahoo, Google, Cloudflare, Kalshi, etc.) for identification only; no endorsement claimed.

6. Planned Charles Schwab Trader API integration (post-approval)

The following describes the **intended** production market-data path after Martial Systems LLC (or its authorized individual developer) obtains approved access to the Charles Schwab Trader API under Schwab’s individual developer program. **As of this document date, SchwabProvider is a code stub only; live OAuth and chain calls are not active.** Activation is gated on approval, app credentials, and completed implementation/testing.

6.1 Why Schwab

- Replace interim Yahoo/public endpoints with a documented brokerage developer API for underlying quotes and option chains.
- Keep credentials and tokens server-side (Cloud Run environment / secrets); never expose app secret or refresh tokens to the browser.
- Align data access with an account the operator already holds for personal use of the tool.

6.2 Architecture after activation

- Front end remains static on Cloudflare Pages; continues to call only Martial Systems’ backend GET /api/data (and /health).
- Backend remains the sole process that holds Schwab OAuth credentials and performs Schwab HTTP calls.
- DATA_PROVIDER environment variable set to schwab (or equivalent) once SchwabProvider is fully implemented; math, cool-down cache, CORS, and front end need not change.
- Single-worker process model retained so shared cool-down cache continues to limit outbound call rate to Schwab.

6.3 Data retrieved from Schwab (planned)

• Underlying quote for SPY (last/mark as available from the API).

• Option chain for SPY filtered to today's expiration (0DTE) only, limited to the nearest three strikes around spot in as few API calls as the endpoint allows.

• Intraday bars or equivalent short-horizon series if exposed by Schwab APIs for realized-vol estimate; if not available in the same form as Yahoo 1m bars, implementation will document the substitute series and any methodology change.

6.4 OAuth, tokens, and secrets handling (planned)

• Store SCHWAB_APP_KEY, SCHWAB_APP_SECRET, and the current refresh token only as Cloud Run secrets / environment configuration—not in git, not in the front end.

• Access tokens are short-lived (~30 minutes per Schwab's documented model); refresh tokens are longer-lived and may rotate on use.

• On each successful token refresh, persist the new refresh token as the source of truth (Cloud Run disk is ephemeral; prefer Secret Manager or platform secret update so redeploys do not strand the app on an invalidated refresh token).

• On 401, attempt one controlled refresh and one retry; on persistent auth failure, return a clear error status without fabricating market numbers.

6.5 Rate limiting and personal-use posture (planned)

• Continue shared server cool-down (default five seconds) so at most one real provider fetch occurs per window regardless of button mashing.

• Optional token-bucket backstop under Schwab's published request limits.

• Product remains personal-use / limited distribution; not designed as a multi-tenant public API over Martial Systems' Schwab credentials.

6.6 User-facing and compliance notes when Schwab is live

• Disclaimers already state no affiliation with Charles Schwab unless expressly claimed; continue that posture.

• Data still subject to delay, incompleteness, and outage; Terms Section 5 continues to apply.

• Using Schwab data does not convert the product into a broker, RIA, or order-entry system; no order placement is in scope.

• Operator must comply with Schwab developer agreement, data-use restrictions, and account terms at all times.

• If Schwab access is revoked or rate-limited, fail closed or fall back only if product policy explicitly allows (e.g. auto mode); do not invent quotes.

6.7 Implementation status checklist (for counsel / engineering)

• Schwab developer app registered and approved — pending operator.

• OAuth consent and initial refresh token obtained — pending.

• SchwabProvider implemented against MarketDataProvider interface — pending (stub exists).

• Secret storage + refresh-token rotation persistence — pending.

• Production DATA_PROVIDER=schwab + monitoring of 401/429 — pending.

• User-facing provider label and any required attribution per Schwab terms — pending review of those terms.

7. Remaining soft spots (eyes-open residual risk)

The following items are recorded so Martial Systems LLC and reviewing counsel understand residual risk even if formal legal engagement is limited. **None of these statements waive Terms rights or constitute a concession of liability.** They are operational risk notes.

7.1 Liability cap and exclusive remedy

Terms Section 8 sets a nominal aggregate cap of the greater of amounts paid (zero while free) or **US$50**, and states that the exclusive remedy for dissatisfaction is to stop using the Service. Indiana courts often enforce clear limitation-of-liability clauses on free services, but a low dollar figure on a tool that surfaces options-related "leans" can still be challenged as unconscionable or against public policy if a user alleges real trading losses. The free/experimental justification supports the allocation of risk; it is not ironclad. The cap does not prevent filing of a suit, process costs, or attempts to pierce the LLC veil.

7.2 Market-data source (interim Yahoo)

Reliance on public/undocumented Yahoo endpoints is common for personal projects but carries terms-of-use and rate-limit risk. Product disclaimers address accuracy and timeliness; they do not eliminate the possibility that Yahoo (or a future provider) objects to access patterns. The Schwab path (Section 6) is the intended longer-term data source once approved. Until then, auto mode may fall back to a session snapshot when Yahoo fails.

7.3 "Financial game surface" / cartoon framing

Cartoon presentation helps communicate experimental, non-serious framing. Some regulators and plaintiffs look past the skin. Non-advisory, no-recommendation, and no-solicitation language in the acceptance modal and Terms must remain dominant over game copy.

7.4 Missing or light items (hygiene)

• **Formal notices address** — not published on the Service; add when Martial Systems LLC has an address it is willing to use for legal notices.

• **Privacy policy** — currently the primary browser storage is a localStorage acceptance flag; a short privacy notice is still good hygiene if the product expands tracking, analytics, or accounts.

• **Audio rights clearance** — sound files excluded from this package correctly; clear or replace before treating them as company assets.

• **Trademark clearance** for "Big Red Button" and Martial Systems branding in relevant classes.

• **Historical Terms retention** — when localStorage acceptance keys are bumped (vN), retain dated copies of prior Terms text (e.g. this PDF series or git tags) for dispute reconstruction.

7.5 LLC formalities

With limited assets, practical collection risk may be low, but keep Martial Systems LLC in good standing, use a proper registered agent, file required reports, and avoid personal/LLC commingling so limited liability remains as robust as state law allows. Strong disclaimers reduce claim likelihood; they do not eliminate process cost or regulatory interest.

7.6 Practical bottom line

For a free, tiny, clearly labeled non-advisory experimental tool, many operators accept residual risk with DIY terms. Terms and venue language reduce risk; they do not eliminate it. Eyes open: the residual concern is often response cost or veil-piercing narratives, not collection of a large judgment against an empty entity alone.

8. User acceptance mechanics (as implemented)

- Site loads open; disclosure modal on first button press; control: "I Understand and Agree."
- Stored in browser localStorage under a versioned key (bump when disclosure text changes).
- No backdrop/Escape dismiss; after accept, pending press continues.
- Footer Terms always visible; this PDF linked from footer and acceptance modal.

Exhibit A — First-Press Acceptance Disclosures

Full substance of the acceptance modal as deployed (for counsel parity check with the live site).

Important disclosures

Please read these disclosures carefully before using Big Red Button, a product of Martial Systems LLC. This tool provides automated, model-based estimates related to SPY options that expire on the same trading day (0DTE) and is intended only for short holding periods on the order of a few minutes. It is for informational and experimental purposes only.

• **Not investment advice.** Nothing on this site is investment, trading, tax, accounting, or legal advice, or a recommendation to buy, sell, or hold any security, option, or other financial instrument.

• **Not an offer or solicitation.** Content is not an offer to sell, or a solicitation of an offer to buy, any security or option, and is not a solicitation of any specific trading action.

• **Options involve substantial risk of loss** and are not suitable for all investors. Purchasers of options may lose the entire premium paid, plus transaction costs. Selling (writing) options can involve losses greater than the premium received. Before trading options, read the OCC Characteristics and Risks of Standardized Options (https://www.theocc.com/company-information/documents-and-archives/options-disclosure-document).

• **0DTE and short-horizon risk.** Same-day expiration SPY options can experience rapid price changes, wide bid-ask spreads, and reduced liquidity, particularly near the close. Percentages and “leans” displayed here are heuristic model outputs, not probabilities of profit and not guarantees of any result.

• **No suitability determination.** Martial Systems LLC does not assess your investment objectives, financial situation, or risk tolerance. You are solely responsible for determining whether any information is appropriate for your circumstances.

• **Market data limitations.** Data may be delayed, incomplete, inaccurate, cached, snapshotted outside regular trading hours, or unavailable. Do not rely on this tool as your sole source of information for any trading decision.

• **No brokerage or advisory relationship.** Martial Systems LLC is not a broker-dealer, exchange, registered investment adviser, commodity trading advisor, or fiduciary. Use of this site does not create any such relationship. Past performance is not indicative of future results.

• **As-is; free experimental tool; limitation of liability.** The Service is provided free of charge, “as is” and “as available.” Your primary remedy is to stop using it. To the maximum extent permitted by law, Martial Systems LLC disclaims warranties and liability for losses arising from use of (or inability to use) this site or its outputs, including trading losses. Full terms appear in the Terms of Use below, including Indiana governing law, exclusive venue in Lake County, Indiana (and the U.S. District Court for the Northern District of Indiana, Hammond Division), and a low nominal liability cap consistent with free experimental software.

By selecting **I Understand and Agree**, you acknowledge that you have read these disclosures, that you are of legal age to use this site where you are located, and that you agree to the Terms of Use set forth below on this page (including Section 10, Governing law and venue). A consolidated PDF for legal review is also available on the site. The product will then respond to the button.

Control label: I Understand and Agree

Exhibit B — Footer Terms of Use & Risk Disclosures

Full substance of footer Terms as deployed.

Terms of Use & Risk Disclosures

1. Proprietary rights. This website, including its software, text, graphics, audio, and other materials (collectively, the “Service”), is owned by Martial Systems LLC and is protected by applicable intellectual property laws. Except for personal, non-commercial use of the Service as made available on this site, you may not copy, modify, distribute, reverse engineer, sell, or create derivative works from the Service without prior written permission from Martial Systems LLC.

2. Nature of the Service; free of charge. Big Red Button is experimental software that displays automated, heuristic estimates related to SPY options. It is provided for informational purposes only and is currently made available free of charge, without payment, subscription, or other monetary consideration to Martial Systems LLC. No purchase, paid account, or financial relationship with Martial Systems LLC is required or created by access to the Service. The Service is not a brokerage account, securities exchange, alternative trading system, registered investment adviser, commodity trading advisor, introducing broker, or futures commission merchant. The Service does not accept orders, execute trades, clear transactions, or hold customer funds or securities.

3. No investment advice; no recommendations; no solicitation. All content generated or displayed by the Service, including without limitation prices, percentages, directional “leans,” badges, liquidity messages, and any “recommendation” text, is impersonal and automated. Such content does not constitute investment, trading, financial, tax, accounting, or legal advice; does not constitute a recommendation or endorsement of any security, option strategy, or transaction; does not constitute an offer to sell or a solicitation of an offer to buy any security or option; and is not personalized to any user’s objectives, financial situation, or needs. You should not construe any information as a probability of profit. Past performance is not indicative of future results.

4. Options risk disclosure. Options trading involves significant risk and is not suitable for all investors. You may lose the entire amount of capital you invest. The purchaser of an option generally risks the premium paid plus transaction costs; the seller of an option may be subject to losses substantially greater than the premium received. Same-day expiration (0DTE) options on SPY may be especially volatile and may become illiquid. You are solely responsible for understanding the risks of options trading, including exercise and assignment, time decay, implied volatility, and bid-ask spreads. Please review the Options Clearing Corporation’s Characteristics and Risks of Standardized Options (https://www.theocc.com/company-information/documents-and-archives/options-disclosure-document) before trading options.

5. Market data and third parties. Market data and other information provided through the Service may be delayed, incomplete, inaccurate, interrupted, rate-limited, cached, or based on a static snapshot (including outside regular trading hours). The Service may depend on third-party infrastructure and data sources. Martial Systems LLC does not guarantee the accuracy, completeness, timeliness, or availability of any data and is not responsible for failures of third-party systems. References to third-party names, products, or marks are for identification only and do not imply endorsement, sponsorship, or affiliation unless expressly stated.

6. Eligibility. By using the Service, you represent that you are of legal age to form a binding agreement where you reside and that you are permitted under applicable law to access options-related information. The Service is not directed to any person in any jurisdiction where such access would be unlawful.

7. Disclaimer of warranties. THE SERVICE IS PROVIDED ON AN “AS IS” AND “AS AVAILABLE” BASIS, WITHOUT WARRANTIES OF ANY KIND, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, ACCURACY, OR UNINTERRUPTED AVAILABILITY. YOU USE THE SERVICE AT YOUR OWN RISK.

8. Limitation of liability; exclusive remedy. Because the Service is provided free of charge and without monetary consideration, your sole and exclusive remedy for dissatisfaction with the Service, or for any claim arising out of or relating to the Service, is to stop using the Service. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, MARTIAL SYSTEMS LLC AND ITS OFFICERS, DIRECTORS, MEMBERS, EMPLOYEES, CONTRACTORS, AND AGENTS SHALL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, EXEMPLARY, OR PUNITIVE DAMAGES, OR ANY LOSS OF PROFITS, TRADING LOSSES, DATA, GOODWILL, OR BUSINESS OPPORTUNITY, ARISING OUT OF OR RELATED TO THE SERVICE OR THESE TERMS, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. WITHOUT LIMITING THE FOREGOING, AND TO THE EXTENT ANY MONETARY LIABILITY CANNOT BE FULLY EXCLUDED, THE AGGREGATE LIABILITY OF MARTIAL SYSTEMS LLC ARISING OUT OF OR RELATED TO THE SERVICE SHALL NOT EXCEED THE GREATER OF (A) THE AMOUNTS, IF ANY, YOU ACTUALLY PAID TO MARTIAL SYSTEMS LLC SPECIFICALLY FOR ACCESS TO THE SERVICE IN THE TWELVE (12) MONTHS PRECEDING THE CLAIM

(WHICH, WHILE THE SERVICE REMAINS FREE OF CHARGE, IS ZERO), OR (B) FIFTY U.S. DOLLARS (US$50) AS A NOMINAL CAP CONSISTENT WITH FREE EXPERIMENTAL SOFTWARE. THE LIMITATIONS IN THIS SECTION REFLECT THE ALLOCATION OF RISK BETWEEN THE PARTIES GIVEN THAT NO FEE IS CHARGED FOR THE SERVICE. SOME JURISDICTIONS DO NOT ALLOW CERTAIN LIMITATIONS; IN THOSE JURISDICTIONS, LIABILITY IS LIMITED TO THE FULLEST EXTENT PERMITTED BY LAW.

9. Indemnification. You agree to indemnify, defend, and hold harmless Martial Systems LLC and its officers, directors, members, employees, contractors, and agents from and against any claims, losses, liabilities, damages, costs, and expenses (including reasonable attorneys' fees) arising out of or related to your use of the Service, your trading or investment decisions, or your violation of these Terms or applicable law.

10. Governing law and venue. These Terms of Use and any dispute, claim, or controversy arising out of or relating to these Terms or the Service shall be governed by and construed in accordance with the laws of the State of Indiana, U.S.A., without regard to its conflict-of-laws principles. You agree that any legal action or proceeding arising out of or relating to these Terms or the Service shall be brought exclusively in (a) the state courts located in Lake County, Indiana, or (b) the United States District Court for the Northern District of Indiana (Hammond Division), which includes Lake County, Indiana, and you hereby consent to the personal jurisdiction and venue of those courts and waive any objection based on inconvenient forum, including any claim that such forum is an inconvenient venue. Notwithstanding the foregoing, Martial Systems LLC may seek injunctive or other equitable relief in any court of competent jurisdiction to protect its intellectual property or confidential information. If any provision of this section is held unenforceable as to a particular claim or party, the remainder shall continue in full force to the maximum extent permitted by law.

11. Acceptance; changes. By selecting "I Understand and Agree" when prompted, or by continuing to use the Service after notice of updated terms is posted on this page, you accept these Terms of Use and risk disclosures. If you do not agree, do not use the Service. Martial Systems LLC may update these Terms by posting a revised version on this page. Continued use after changes are posted constitutes acceptance of the revised Terms to the extent permitted by law. These Terms do not create an attorney-client relationship and are not a substitute for advice from your own licensed professionals.

Exhibit C — Repository LICENSE (proprietary)

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OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE
SOFTWARE.
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9. Document control

- Regenerate this PDF when Exhibit A or B text changes on the live site.
- Retain dated copies (git tags or dated filenames) when localStorage acceptance keys bump (vN).
- Live Service HTML terms control if they diverge from this PDF until the PDF is regenerated.
- Schwab Section 6 is forward-looking; update status checklist when implementation completes.

End of package.