

EL QEC Challenge 2025 – Terms & Conditions

These Terms & Conditions ("**T&Cs**") govern participation in the Entropica Labs Quantum Error Correction Challenge 2025 (the "**Challenge**") organised by Entropica Labs Pte. Ltd., headquartered at 186B Telok Ayer Street, Singapore ("**Entropica**", "**we**", "**our**" or "**us**").

By registering for, accessing or using Entwine, and/or participating in the Challenge, **Participants** (or "**Entrants**", "**you**", "**your**" or "**yourself**") agree to comply with and be bound by the rules prescribed by Entropica at all times, including these T&Cs, (as may be modified from time to time).

Contest Overview

The Challenge is a skills-based competition in which participants use **Entwine**, Entropica's web-based IDE, to complete quantum error correction tasks assigned by Entropica ("**Tasks**"). The Challenge aims to, amongst others, promote research, learning, and collaboration in fault-tolerant quantum error correction and quantum computing.

Timeline

Challenge Launch: 21st of May 2025

Submission Deadline: 4th of June 2025 (11:59 PM SGT)

Winners Announcement: June 2025 (Exact date TBD)

All times are in Singapore Time (SGT). Entropica reserves the right to extend or amend the timeline.

Eligibility

- **Age Requirement:** Open to individuals aged 18 or older at the time of entry.
 - **Open to:** Worldwide participants, except where subject to applicable laws.
 - **Exclusions:** Current team members, contractors, officers, employees or affiliates of Entropica Labs (and their immediate family members) are ineligible to participate.
 - **Teams:** Participants must enter the Challenge as individuals. Team/ collaborative efforts are not permitted.
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Entry Guidelines and how to Participate

- **Accept the T&Cs and Sign up for the access to Entwine.**

- **Access Entwine and complete the Tasks.**
- **Submit work by following instruction on the Submission page before the deadline.**
- **Content Standards:** Submissions must be original and lawful. No AI-generated content is permitted unless explicitly stated. No offensive, discriminatory or illegal material.
- Only you as the authorised user may access and use Entwine. If you know or suspect that anyone other than yourself (other than a Participant) has accessed Entwine, you must promptly notify us at help-entwine@entropicalabs.com.

For Tasks information: <https://challenge2025.entropicalabs.com/tasks>

For submission information: <https://challenge2025.entropicalabs.com/submission>

Scoring and Judging

1. Overview.

1.1 Each eligible Submission will be evaluated on a **maximum of 110 points**, comprising up to **100 points across three (3) Technical Tasks** and up to **ten (10) discretionary “Craft Points.”**

1.2 Points may be awarded for partial solutions; a Participant is **not required to complete all Technical Tasks to remain eligible for a Prize.**

2. Task Weights.

Task Weights: Task 1 carries a maximum of 25 points (25 % of the Technical Task score); Task 2 carries a maximum of 35 points (35 %); Task 3 (higher difficulty) carries a maximum of 40 points (40 %).

3. Detailed Scoring Criteria.

3.1 Task 1 (Maximum 25 Points)

- Correctness of logical circuit – 15 pts
- Clarity of circuit structure via Entwine “layers” feature – 2 pts
- Selection of appropriate Surface-Code parameters *and* correct execution of noise simulations – 8 pts

3.2 Task 2 (Maximum 35 Points)

- Accuracy of converting or compiling logical gate operations into lattice-surgery steps – 20 pts
- Circuit compactness (overall depth, total lattice-surgery operations, and logical-qubit count) – 10 pts
- Quality of methodological explanation and annotation – 5 pts

3.3 Task 3 (Maximum 40 Points)

- a. Correctness of logical circuit implementing the concatenated Surface Code – 30 pts
- b. Circuit compactness (overall depth, lattice-surgery operations, physical-qubit count) – 10 pts

4. Craft Points (Maximum 10 Points).

Up to ten (10) additional points may be awarded at the Judging Panel's sole discretion for **clarity, presentation quality, and depth of insight** demonstrated in a Submission.

5. Partial Submissions.

5.1 Participants may submit any combination of Technical Tasks (1, 2, or 3).

5.2 The **Total Score** for such Submissions shall equal the sum of points earned for the completed Task sections **plus** any Craft Points.

6. Scoring Formula.

Total Score = Σ (Task Points Awarded) + Craft Points

Maximum achievable Total Score = 110 points.

7. Tie-Break Procedure.

In the event two (2) or more Submissions attain identical Total Scores, ranking shall be determined in the following order:

- a. The higher score achieved in **Task 3**;
- b. If the scores achieved in **Task 3** are the same, the earlier Submission timestamp, based on Singapore Time (SGT);
- c. If the Submissions were made at the same time, final and binding determination by the Judging Panel.

8. Judging Panel Authority.

8.1 All scoring is conducted by a panel of judges appointed by Entropica (the "**Judging Panel**"). Notwithstanding any other provision herein, the Judging Panel will in its sole and absolute discretion select and rank the winning submissions, and/or Entrants.

8.2 The Judging Panel's decisions on all matters are **final and are not subject to review, appeal or reconsideration**.

8.3 Entropica reserves the right, in its sole discretion, to verify compliance, reject any Submission without notice (in which case such Submission will be void), or adjust scores in the event of manifest clerical error.

- **Prize Tiers:**

1. First Prize
2. Second Prize
3. Third Prize

Entropica reserves the right to change prize tiers at its discretion.

- **Notification:** Winners notified via email; reserve winners may be selected by Entropica

Prizes

- **Prizes:** Winners receive the prizes listed on the competition landing page <https://challenge2025.entropicalabs.com/>; We reserve the right to substitute, withdraw, cancel, or require the forfeiture of, any Prize, whether awarded already or not, without notice.
- **Delivery:** Winners will be notified by Entropica via email and may be asked to verify their details. All Prizes and other benefits (if any), including their availability and eligibility criteria, are determined by Entropica at its sole and absolute discretion. Cash prizes will be paid via bank transfer or PayPal, while non-cash prizes will be delivered via digital transfer or physical mail.
- Entropica reserves the right to deal with any prize as it deems fit and/or select an alternate winner, including if any applicable winner of any Prize be ineligible to receive such Prize, is deemed to be unresponsive, or fails to provide the required information or collect the Prize within the required time.
- Prizes are **non-transferable** and **not exchangeable**, and must be accepted as awarded.

Any and all costs and expenses (including all taxes, duties or withholdings) incurred by the participants in connection with the Challenge and Entwine, such as the claiming or using of the prizes, will be the responsibility of the participants.

Participant's Obligations

- Each Participant represents, warrants and undertakes to Entropica at the time of registration and at the time of making the submission(s) that:
 - the Participant has full authority, power and capacity to enter into these T&Cs and to perform its obligations hereunder, and has complied (and is solely responsible for the compliance) with these T&Cs and all applicable laws;
 - the Participant has the rights to and is authorised to use all content they submit, the submissions are their original works created specifically for the Challenge, and that such submissions have not been entered into any other competitions; and
 - all the information the Participant has provided to Entropica is true, accurate, complete, and not misleading.
- Each Participant shall not attempt to and shall not (in each case whether through the use of Entwine, in the course of the Challenge, or otherwise):

- do anything which may undermine the Challenge or breach these T&Cs, including but not limited to interfering with or disrupting the integrity or performance of Entwine or the Challenge or the data contained therein, or any form of cheating;
- violate any law or regulation or infringe other people's intellectual property, privacy, publicity, or other legal rights;
- send or store infringing, obscene, indecent, illegal, immoral, inappropriate, hateful, malicious, corrupt, defamatory, fraudulent, threatening, libelous, or otherwise unlawful or tortious material, or material containing software viruses, worms, Trojan horses or other harmful computer code, files, scripts, agents or programs;
- avoid, bypass, remove, deactivate, impair, descramble, or otherwise circumvent any technological measure implemented in connection with the Challenge, or attempt to gain unauthorised access to Entwine or its related systems or networks;
- decipher, decompile, disassemble or reverse engineer any of the software used in connection with the Challenge and/or Entwine, or modify, translate or make derivative works based on the foregoing items, or otherwise attempt to discover the source code, object code or underlying structure, ideas, know-how or algorithms relevant the Challenge and/or Entwine or any software, documentation or data related thereto;
- use or claim or make any attempt to otherwise use or claim any intellectual property rights, including, without limitation: processes, inventions, marks, methods, software, compositions, formulae, ideas, concepts, techniques, code, discoveries, information and data (whether or not patentable, copyrightable or protectable in trade mark), and any trade marks, copyright or patents based thereon, and all of related source code, logos, technical information, images, content, text, graphics, and information, documentation or data ("IPR") for any reason whatsoever, and all such rights not expressly granted to the Participant are expressly reserved by Entropica; and/or
- take any action which is intended to, or could reasonably be expected to, have an adverse effect on Entropica, Entwine and/or the Challenge or any person associated therewith, including but not limited to any action which could reasonably be expected to lead to adverse publicity for Entropica, Entwine and/or the integrity of the Challenge, or any person associated therewith.

Intellectual Property

- **Participant Ownership:** Entrants retain full ownership of their submissions, save to the extent that such submissions contain Entropica's IPR which shall remain the sole property of Entropica.
- **License to Entropica Labs:** Each Participant grants to Entropica a *non-exclusive, worldwide, perpetual, irrevocable, royalty-free, sublicensable license* to use, reproduce, modify, distribute, display, and prepare derivative works of their submissions and related IPR for any purpose (including marketing, research, product development), and to use their name, image and likeness and/or interview statements from them in its publications, advertising or other media activities (including on the internet). Each Participant further agrees to assign to Entropica all rights, title and interest in any suggestions, information,

ideas, and feedback, which may include any report of errors discovered in connection with the Challenge and/or Entwine, and provide Entropica with any reasonable assistance necessary to document, maintain, perfect and/or enforce Entropica's rights in the suggestions, information, ideas, and feedback.

Nothing in these T&Cs grants you a right to use any of Entropica's IPR, except as specified for the purposes of the Challenge.

Personal Data Management

You consent to the collection, storage, retention, use, disclosure, transfer and processing of your personal data (which may include your name, email address, occupation, country of residence, etc) by Entropica and/or its related persons for, amongst others, the following purposes (and such other purpose as we may notify from time to time):

- administering the Challenge (including verification and future communications), further developing Entwine, and related marketing and promotional activities;
- enforcing the T&Cs and addressing fraud, security or technical concerns; and
- complying with applicable laws, regulations or guidelines, or assisting with enforcement and investigations.

The Participants agree that Entropica Persons may:

- monitor all activities and processes of the Participants on Entwine, and may intercept or otherwise terminate any activity or process, if they are of the opinion that such action is necessary for the security or integrity of the Challenge and/or Entwine. Entropica reserves the right to utilise system logs and anomaly detection to identify potential abuses.
- contact them regarding the Challenge and/or Entwine, and they agree to participate in any marketing, promotion, and/or publicity relating to the Challenge and/or Entwine.

Participant Rights: Participants may submit a request for access to, or correction or deletion of their personal data by contacting privacy@entropicalabs.com, subject always to applicable law.

Disclaimer

- Entwine is provided for use related to the Challenge only.
- Entwine is provided "as is" and "as available" without warranties of any kind, including but not limited to its availability, accuracy, performance, completeness, correctness, currency, timelines, reliability, interoperability, security, non-infringement, title, merchantability, quality, fitness for any particular purpose, or that the Challenge and/or Entwine, or any functions or features associated therewith, will be uninterrupted or error-free, or that defects will be corrected or that the Challenge and/or Entwine and the servers used in connection therewith

are and will be free of all viruses and/or other malicious, destructive or corrupting code, programme or macro.

- Entrants understand that technical issues such as lag, bugs, and unexpected outages may occur, and that these will not entitle them to any compensation, deadline extensions, or contest alterations.

Liability

- To the fullest extent permitted by applicable law, in no event shall Entropica, its related persons and affiliates, or any of their directors, team members, officers, employees, contractors, or agents (collectively, the “**Entropica Persons**”) be liable for any Loss arising from or in connection with the Challenge, Entwine, submissions and/or Prizes, including but not limited to delays, suspensions, failures or errors; data loss or submission errors resulting from tool malfunctions or user-side issues (e.g., browser crashes, internet failure); the exercise by Entropica and/or the Judging Panel of any rights stated herein; any unsuccessful efforts to notify a winner of the Challenge and any decision made or action taken in reliance upon the Challenge and/or Entwine, and the Participants waive all such claims against any Entropica Person.
 - If, despite the limitations above, any Entropica Person is found liable for any Loss arising out of or in connection with any of the occurrences described above, in no circumstances will the aggregate liability of the Entropica Persons against an Entrant exceed the total value of the Prize received by the Entrant, if any.
 - Without prejudice to any other rights, claims and remedies available to the Entropica Persons, the Participant shall fully indemnify the Entropica Persons on demand against any and all Losses that any Entropica Person may incur, or be liable for, in connection with or arising from:
 - a breach of these T&Cs or applicable laws, regulations or guidelines, and any action taken to investigate a suspected breach or to enforce Entropica’s rights;
 - any claim brought or threatened against any Entropica Person arising out of or in connection with the Participant’s use of Entwine or participation in the Challenge and/or the Participant’s actions related thereto; and
 - the Participant’s fraud, negligence or wilful misconduct.
 - No delay, act or omission by the Participant and/or the Entropica Persons in exercising any right or remedy will be deemed a waiver of that, or any other, right or remedy.
 - “**Loss**” includes any and all claims, losses (including indirect, consequential, special, exemplary or punitive losses), liabilities, obligations or commitments of any nature, costs, damages, diminution in value, charges or expenses (including all expenses of investigation and enforcement and all legal fees incurred or as taxed and other advisers’ fees and expenses on a full indemnity basis), demands, actions, proceedings, or judgments howsoever arising.
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Entropica's Rights

Notwithstanding any other provision herein, Entropica reserves the right at all times to reject, cancel, disqualify, suspend, discontinue, disable, and/or terminate your participation in the Challenge, access to Entwine, the Entrant's account, and/or any submission, in whole or in part, at its sole discretion, including but not limited to where there is suspected:

- Cheating, plagiarism, or AI-generated content
- Malicious use of the Entwine tool
- Breach of data security or reverse engineering attempts

Determinations regarding the Challenge are at Entropica's sole discretion which shall be final and binding and Entropica shall not be required to provide any reason or explanation for its decision. Any reason or explanation provided by Entropica or the Judging Panel is for information only, shall not be binding on Entropica or the Judging Panel and does not constitute any representation, warranty or undertaking as to future action or otherwise. All sections of these T&Cs which by their nature should survive termination will survive termination.

Confidentiality

Each Entrant shall hold Entropica Information in strict confidence and shall not disclose, copy, duplicate, reproduce, permit access to, or distribute any of it to any person. "**Entropica Information**" includes Log-In Details, business, technical or financial information relating to Entropica, the Challenge and/or the Entwine, and any information which is proprietary or confidential or trade-sensitive in nature to Entropica, or which is marked confidential or is by its nature intended to be exclusively for the knowledge of the Entrant alone.

No Participant shall disparage any Entropica Person, the Challenge and/or Entwine whether during or after the term of these T&Cs. "**disparage**" means making any statement which may be construed as negative, whether written or oral, including any defamatory, negative or denigrating comments of any type or nature whatsoever to any person.

Amendments and Cancellation

Entropica Labs reserves the right to:

- Modify the Challenge, Entwine, and/or these T&Cs (including any rules regarding the Challenge such as timelines or any scoring or judging criteria) at any time. A Participant's continued access to or use of Entwine, and/or participation in the Challenge will constitute the Participant's agreement and acceptance of such modifications.

- Cancel or suspend the Challenge for any reason (e.g., fraud, force majeure).
- Disqualify participants for breach of these T&Cs.

In the event of any conflict, inconsistency or ambiguity between or in any one or more terms in these T&Cs, such conflict, inconsistency or ambiguity shall be resolved in favour of Entropica and the provision or interpretation which is more favourable to Entropica shall prevail. Notwithstanding any other term, Entropica shall have the sole and absolute discretion to determine which term or interpretation is more favourable to us and such decision shall be binding on you.

Governing Law & Administration

- **Law & Jurisdiction:** This Challenge is governed by the laws of Singapore, and any disputes arising from or related to this Challenge shall be resolved in the courts of Singapore. Parties submit to the exclusive jurisdiction of the Singapore courts. If any portion of the T&Cs is found to be unenforceable, the remainder shall remain in full force and effect. Save for the Entropica Persons, a person who is not party to these T&Cs shall have no right to enforce these T&Cs.
- **Contact:** For all queries, please email: questions@entropicalabs.com