

Official Rules

NO PURCHASE OR PAYMENT IS NECESSARY TO ENTER OR WIN. A PURCHASE WILL NOT IMPROVE YOUR ODDS OF WINNING.

Contest: IEEE Smart Lighting “Let’s Make Light 2023” (the “Contest”)

Sponsor: The Institute of Electrical and Electronics Engineers, Incorporated, 445 Hoes Lane, Piscataway, New Jersey, USA, 08854 (“Sponsor”)

Eligibility: Contest is open to residents of the United States of America and other countries, where permitted by local law, who are the age of eighteen (18) and older. Employees of Sponsor, its agents, affiliates, and their immediate families are not eligible to enter Contest. Entrants may be subject to rules imposed by their institution or employer relative to their participation in contests and should check with their institution or employer for any relevant policies. Void where prohibited by law. "For the avoidance of doubt, the Contest is not open to individuals or teams who are subject to export control regulations. This may include, but is not limited to, those listed

here: <https://legal.ieee.org/compliance/ofac/applicability-countries-entities-persons.>"

Agreement to Official Rules: By participating in this contest, entrants agree to abide by the terms and conditions thereof as established by Sponsor. Sponsor reserves the right to alter any of these Official Rules at any time and for any reason. All decisions made by Sponsor concerning the Contest including, but not limited to the cancellation of the Contest, shall be final and at its sole discretion.

Entry Period: This Contest commences on June 30, 2023, at 8 AM EDT and ends on September 29 at 5 PM EDT, 2023 ("Entry Period"). Sponsor's server is the official clock for the Contest. Entries received before or after the entry period are void.

How To Enter: Contestants must upload a project online on the contest submission webpage <https://smartlighting.ieee.org/competition> within the entry period specified above. More details on the format of submissions are included in the track descriptions below.

All submissions must carry a copyright transfer under the form of creative commons (more details are provided in the call). For contestants who do not win any prize, the copyright will be returned to the submitters, while it will be transferred to, and retained by the IEEE under the creative commons license for anyone winning a first, second or third prize.

Affiliations, Language and Currency: Individuals entering this contest are required to represent - but do not need to be employees of an organization. Supporting organizations can be universities and academic establishments, private sector small and medium-sized enterprises (SMEs), startups, nonprofits, non-governmental organizations (NGOs), grassroots groups, or government agencies, worldwide. Specific educational degrees are not required. Membership in the IEEE is not required. Participants representing underserved communities from low- and middle-income countries/emerging nations are highly encouraged to apply. English is the official language of the competition, but minimum translations of rules and submission details are posted in a variety of languages on the website. US Dollar (USD) is the official currency of the competition for both submitted projects and awards.

LIMIT ONE (1) ENTRY PER TEAM – Each supporting organization can present up to three (3) teams (per category) to the Contest. Limit one (1) entry per team. Teams may consist of one (1) to five (5) individuals. All team members shall be living in the same country at the time of the Contest, regardless of their nationalities. Team members cannot be changed once the application has been submitted.

Only entries submitted in accordance with these Official Rules will be eligible for consideration. No alternate means of entry permitted. All entries become the exclusive property of Sponsor, will not be returned, and may not be acknowledged,

Selection of Winner: A Selection Committee of judges qualified to evaluate submissions of this nature has been created by the IEEE Smart Lighting Project. Submissions will be assessed based on the criteria listed below. Judges will use a scoring system to evaluate each submission and will meet to establish final rankings and determine the winners in case of a tie. The confidentiality of the contents of each submission will be strictly maintained.

The competition has three tracks. Contestants must submit their project in one of the three tracks and may elect one secondary track. Projects will be evaluated according to the criteria defined below for the track(s) they selected. All criteria will be weighted equally. Projects can only win prizes in one of the tracks selected. The three tracks are:

Track 1: Environmentally Sustainable Technology

The Challenge: Historical examples of light sources developed in and for aid programs have not been successful due to loss of functionality and short lifetimes. Hence, this track is for modified existing, or novel technologies for fabrication of light sources, including ideas for sustainable local manufacturing of the specific light source or luminaire.

Submission Format: Submissions to the competition in Track 1 on lighting technology can consist of:

- A written document (maximum five pages)
- Or a presentation document (maximum ten slides)
- The documents above can include descriptive images and tables

They can include:

- Drawings or sketches
- Simulation results
- Functional prototypes with analytical results
- Photos or videos of the light in use
- Existing product designs may be modified to meet the criteria for this competition
- Submissions in Track 1 should support the vision of the other Tracks.

Judging Criteria: Submissions to this track will be ranked according to the extent to which they meet the following eight criteria:

1. Customer Interaction

Describes how end customers contributed, by interviews or other means, to the design and building method of the product.

2. *Sustainability*

Describes how the product, as much as possible, utilizes locally sourced components. Minimizes CO₂ footprint during the product lifecycle, from materials used, shipping, usage, repair, reuse, and recycling (i.e., fits in a circular economy). Accounts for waste produced during manufacturing and by components that cannot be reused/recycled.

3. *Light Quality*

The “right” light for humankind, considering properties like color rendering, color temperature, flicker, glare, and circadian rhythm (human wake sleep cycle). Considerations that light also affects animals, fishes, plants, and insects.

4. *Useability*

Adaptable to customer needs. Aesthetic, desirable and easy to use. Extended time between charging (energy efficient). Durable against wear and tear, corrosion, and other physical damages. Reliable in delivering its services.

5. *Functionality*

Functions as both a general room illuminator and a reading light with high and low illumination modes.

6. *Affordability*

Affordable for populations with 1USD/day incomes.

7. *Energy Efficiency*

Runs for 3 days (20 hours) on a single charge. Powered from individual or shared renewable sources.

8. *Manufacturing attributes*

As locally sourced and manufactured as possible. Manufacturing envisioned should not require high levels of technical expertise or specialized equipment. The production facility envisioned should be powered by renewable energy that requires small capital outlay and is easy to replicate.

Track 2: Sustainably Local Business

The Challenge: Many aid programs have not been successful beyond the duration of the program end date. A sustainable light source also needs a real (non-aid) business model to support it. Hence, this track is for demonstrating ideas of novel, or modified existing business models that enable such light systems to thrive locally.

Submission Format: Submissions to the competition for describing the business model can consist of:

- A written document (maximum five pages)

IEEE Let's Make Light 2023 Competition Official Rules

- Or a presentation document (maximum ten slides)
- The documents above can include descriptive images and tables
- Submissions in Track 2 should support the vision of the other Tracks

Submissions can include, but are not limited to the following business areas:

- Access to light that in turn enables income generation by working evenings or nights (giving courses, fabricating products, preparing crops, retail, caring for cattle, etc.)
- Related opportunities such as selling charging capacity from the light sources, if the light is not used
- Business opportunities from repairing and recycling light sources
- Recycling of other products that can generate material or subcomponents for local production of the light sources
- Identify funding for the establishment of manufacturing and distribution facilities
- Tiered pricing structure to ensure that the light is accessible to, and affordable by all
- Approaches to the distribution and collection of payments from the extreme poor

Judging Criteria: Submissions to this track will be ranked according to the extent to which they meet the following three criteria:

1. Self-Sustaining

The submission should describe how, from an economic point of view, the business model is self-sustaining and scalable.

2. Customer Interaction

The submission should describe how end customers contributed, by interviews or other means, to shape the business model

3. Calculation of Breakeven Point

Sustainability has higher priority over low cost, still, submissions should include, in USD: Fixed costs; Estimated sales volume; Bill of materials; Manufacturing costs; Transportation costs; Cost of sales; Profit margin.

Track 3: Self-Sustaining Market Expansion

The Challenge: Even if both the product and the business model are sustainable, the market is still large (940 million people without electricity worldwide) and varied between different countries and cultures. It is a challenge even to get in contact with remote end-users. And if one establishes contact, the end-user has limited funds for purchasing the lighting product. This track is for demonstrating success of the product and business model under such expanded market conditions.

Submission Format: Submissions to the competition for describing the market expansion can consist of:

- A written document (maximum five pages)
- Or a presentation document (maximum ten slides)
- The documents above can include descriptive images and tables

- Submissions in Track 3 should support the vision of the other Tracks

Judging Criteria: Submissions to this track will be ranked according to the extent to which they meet the following four criteria:

1. *Customer Interaction*

Describes how existing or potential customers have provided input on how to distribute products more efficiently. Demonstrates that customers can operate and maintain the product without external intervention.

2. *Sustainability*

Demonstrates that the product can or could be repaired, reused and recycled without burdening the environment.

3. *Value Chain*

Describes how national distributors and local sales are interfacing; Describes how payments are collected; Describes how end users or local sales are trained in repairing and recycling the products; Demonstrates that the product in volumes can be locally sourced, manufactured and repaired; Demonstrates that the product satisfies the constraint of extreme affordability.

4. *Marketing*

Demonstrates a framework to identify, connect, engage, and work with potential customers; Demonstrates that the product can be advertised, distributed, and sold where needed; Identifies challenges on the market, and how they were or could be overcome to create new markets.

Prizes: The prize(s) for the Contest are being sponsored by IEEE. The winner(s) (the “Prize Winner(s)”) shall receive, for each track:

- **1st Prize:** US\$3,000 monetary prize for the winners (split equality between team members), and US\$4,000 as reimbursement of expenses budgeted beforehand for the continuation of the project, a trophy (medal), and a certificate for each team member. Support for team members participation in an IEEE co-sponsored event (travel reimbursement up to US\$2,000 per team according to IEEE Policies and Procedures).
- **2nd Prize:** US\$2,000 monetary prize for the winners (split equality between team members), a trophy (medal), and a certificate for each team member.
- **3rd Prize:** US\$1,000 monetary prize for the winners (split equality between team members), a trophy (medal), and a certificate for each team member.

In addition, all winning team members will receive a 1-year membership in the IEEE for 2024.

For the 1st prize winners, a budget of US\$4,000 will be made available through the IEEE foundation or IEEE Smart Village for supporting the winning team and shall be used for developing further activities aligned with the scope of the competition, and/or for student stipends for the winning team members, with exclusion of company creation (start-up,

spinoff, etc.). A plan for using the monetary award must be part of the original application and the awarded amount has to be sent within the 12 months starting January 1st year N+1 (N=year of the prize winner announce). After that period any unused, or unjustified, part of the budget is returned to the Society.

Awards will be given only if a suitable awardee is identified.

No substitution of prize permitted, except that Sponsor reserves the right to substitute a prize or prize component of equal or greater value in its sole discretion for any reason at time of award. Sponsor shall not be responsible for service obligations or warranty (if any) in relation to the prize(s). Prize may not be transferred prior to award. All other expenses associated with use of the prize, including, but not limited to local, state, or federal taxes on the Prize, are the sole responsibility of the winner. Winner(s) understand that delivery of a prize may be void where prohibited by law and agrees that Sponsor shall have no obligation to substitute an alternate prize when so prohibited.

Notification of Potential Prize Winners: The Prize Winners will be notified by e-mail within 14 days of the selection date. If a Prize Winner does not acknowledge acceptance of the Prize within 14 business days after being notified that he or she is a Prize Winner, or if a potential Prize Winner does not return the signed claim forms within the required time or is otherwise found to be ineligible or not in full compliance with these Official Rules, another Prize Winner will be chosen using the same procedure specified above. Potential Prize Winner may be asked to execute and return to Sponsor a declaration of eligibility and liability/publicity release, where lawful, within fourteen (14) days of attempted notification. Winner may waive the right to receive the prize. The decisions of Sponsor are final and binding in all respects.

Release, Publicity, and Privacy: By receipt of the Prize and/or, if requested, by signing an affidavit of eligibility and liability/publicity release, the Prize Winner consents to the use of his or her name, likeness, business name and address by Sponsor for advertising and promotional purposes, including but not limited to on Sponsor's social media pages, without any additional compensation, except where prohibited. No entries will be returned. All entries become the property of Sponsor. The Prize Winner agrees to release and hold harmless Sponsor and its officers, directors, employees, affiliated companies, agents, successors and assigns from and against any claim or cause of action arising out of participation in the Contest.

Sponsor assumes no responsibility for computer system, hardware, software or program malfunctions or other errors, failures, delayed computer transactions or network connections that are human or technical in nature, or for damaged, lost, late, illegible or misdirected entries; technical, hardware, software, electronic or telephone failures of any kind; lost or unavailable network connections; fraudulent, incomplete, garbled or delayed computer transmissions whether caused by Sponsor, the users, or by any of the equipment or programming associated with or utilized in this Contest; or by any technical or human error that may occur in the processing of submissions or downloading, that may limit, delay or prevent an entrant's ability to participate in the Contest.

Sponsor reserves the right, in its sole discretion, to cancel or suspend this contest and award a prize from entries received up to the time of termination or suspension should virus, bugs or other causes beyond Sponsor's control, unauthorized human intervention, malfunction,

computer problems, phone line or network hardware or software malfunction, which, in the sole opinion of Sponsor, corrupt, compromise or materially affect the administration, fairness, security or proper

play of the contest or proper submission of entries. Sponsor is not liable for any loss, injury or damage caused, whether directly or indirectly, in whole or in part, from downloading data or otherwise participating in this Contest.

Entrant acknowledges and agrees that Sponsor may collect, store, share, and otherwise use personally identifiable information provided during the registration and application process and the Contest, including, but not limited to, name, mailing address, phone number, and email address. Sponsor will use this information with accordance with its Privacy Policy (https://www.ieee.org/security_privacy.html), including for administering the Contest and verifying Entrant's identity, postal address, and telephone number in the event an entry qualifies for a prize. Entrant's information may also be transferred to countries outside the country of Entrant's residence, including the United States. Such other countries may not have privacy laws and regulations similar to those of the country of Entrant's residence. If an Entrant does not provide the mandatory data required at registration, Sponsor reserves the right to disqualify the entry.

Right to Use Entries: By entering the Contest, entrants grant Sponsor a non-exclusive, irrevocable, royalty-free, perpetual, worldwide right and license to reproduce, publish, display, edit and otherwise use the submitted Entries, and entrant's full name and city and state/province/country of residence, photograph, likeness, voice and institutional affiliation, in print or any offline or online and other media for purposes of editorials, exhibition, advertising, publicity and promotion without additional compensation or permission, unless prohibited by law.

Representations and Warranties Regarding Entries: By submitting an Entry, you represent and warrant that your Entry does not and shall not comprise, contain, or describe, as determined in Sponsor's sole discretion: (A) false statements or any misrepresentations of your affiliation with a person or entity; (B) personally identifying information about you or any other person; (C) statements or other content that is false, deceptive, misleading, scandalous, indecent, obscene, unlawful, defamatory, libelous, fraudulent, tortious, threatening, harassing, hateful, degrading, intimidating, or racially or ethnically offensive; (D) conduct that could be considered a criminal offense, could give rise to criminal or civil liability, or could violate any law; (E) any advertising, promotion or other solicitation, or any third party brand name or trademark; or (F) any virus, worm, Trojan horse, or other harmful code or component. By submitting an Entry, you represent and warrant that you own the full rights to the Entry and have obtained any and all necessary consents, permissions, approvals and licenses to submit the Entry and comply with all of these Official Rules, and that the submitted Entry is your sole original work, has not been previously published, released or distributed, and does not infringe any third-party rights or violate any laws or regulations.

Limitations of Liability/Reserved Rights: Neither Sponsor, its parent, subsidiary or affiliated companies, nor its advertising or promotional agencies shall have any obligation, liability or responsibility with regard to (i) entries that contain incorrect or inaccurate information or do not comply with these Official Rules, (ii) entries, prize claims or notifications that are lost, late, incomplete, illegible, unintelligible, damaged or otherwise not received by the intended recipient, in whole or in part, due to computer, technical or other

error of any kind, (iii) telephone, electronic, hardware, software, network, Internet or computer malfunctions, failures or difficulties of any kind, (iv) any condition caused by events beyond the control of Sponsor that may cause the Contest to be disrupted or delayed, (v) any printing or typographical errors in these Official Rules or any other materials associated with the Contest, or (vi) any damages or losses of any kind caused by any prize or resulting from participation in the Contest, accessing, uploading or downloading data in connection with the Contest, or acceptance, possession or use of any prize. Sponsor, in its sole discretion, reserves the right to disqualify any entrant tampering with or abusing the entry process or the operation of the Contest or otherwise violating these Official Rules. Sponsor, in its sole discretion, further reserves the right to cancel, terminate, suspend or modify the Contest if the Contest cannot be completed as planned because of infection by computer virus, bugs, tampering, unauthorized intervention or technical failures of any sort and to select a winner from among eligible entries unaffected by such event, if any.

Disputes: EACH ENTRANT AGREES THAT: (1) ANY AND ALL DISPUTES, CLAIMS, AND CAUSES OF ACTION ARISING OUT OF OR IN CONNECTION WITH THIS CONTEST, OR ANY PRIZES AWARDED, SHALL BE RESOLVED INDIVIDUALLY, WITHOUT RESORTING TO ANY FORM OF CLASS ACTION, PURSUANT TO ARBITRATION CONDUCTED UNDER THE COMMERCIAL ARBITRATION RULES OF THE AMERICAN ARBITRATION ASSOCIATION THEN IN EFFECT, (2) ANY AND ALL CLAIMS, JUDGMENTS AND AWARDS SHALL BE LIMITED TO ACTUAL OUT-OF-POCKET COSTS INCURRED, INCLUDING COSTS ASSOCIATED WITH ENTERING THIS CONTEST, BUT IN NO EVENT ATTORNEYS' FEES; AND (3) UNDER NO CIRCUMSTANCES WILL ANY ENTRANT BE PERMITTED TO OBTAIN AWARDS FOR, AND ENTRANT HEREBY WAIVES ALL RIGHTS TO CLAIM, PUNITIVE, INCIDENTAL, AND CONSEQUENTIAL DAMAGES, AND ANY OTHER DAMAGES, OTHER THAN FOR ACTUAL OUT-OF-POCKET EXPENSES, AND ANY AND ALL RIGHTS TO HAVE DAMAGES MULTIPLIED OR OTHERWISE INCREASED. ALL ISSUES AND QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY, INTERPRETATION AND ENFORCEABILITY OF THESE OFFICIAL RULES, OR THE RIGHTS AND OBLIGATIONS OF ENTRANT AND SPONSOR IN CONNECTION WITH THE CONTEST, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW JERSEY, WITHOUT GIVING EFFECT TO ANY CHOICE OF LAW OR CONFLICT OF LAW, RULES OR PROVISIONS (WHETHER OF THE STATE OF NEW JERSEY OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE APPLICATION OF THE LAWS OF ANY JURISDICTION OTHER THAN THE STATE OF NEW JERSEY. SPONSOR IS NOT RESPONSIBLE FOR ANY TYPOGRAPHICAL OR OTHER ERROR IN THE PRINTING OF THE OFFER OR ADMINISTRATION OF THE CONTEST OR IN THE ANNOUNCEMENT OF THE PRIZES.

Contest Results and Official Rules: To obtain the identity of the Prize Winner and/or a copy of these Official Rules, send a self-addressed stamped envelope to Technical Activities Department, The Institute of Electrical and Electronics Engineers, Incorporated ("IEEE"), 445 Hoes Lane, Piscataway, New Jersey, USA, 08854.