

RAPDASA 3D print Design Competition 2016

“3D CONVENIENCE”

Additive Manufacturing (AM), or better known as 3D printing, is one of the fastest growing emerging technologies internationally. This competition, presented by the Rapid Product Development Association of South Africa (RAPDASA), aims to promote awareness of AM and attempts to gauge the country’s capability to design and engineer for AM.

This year’s design competition invites entrants to design a “Gadget” using 3D printing to illustrate 3D convenience. The competition is divided into five categories. Entrants to the competition may enter any of the categories and there are no limits to the number of entries.

Design specifications:

Design a Gadget: A small unique and novel item, tool or device that can be used to overcome problems or add convenience. (Dictionary unknown)

Design Specifications are guided by using the specifications available from the UP Mini printers supplied:

3-D Printing Systems SA (Pty) Ltd

Tel/Fax: [+27 \(0\)14 597 3327](tel:+270145973327)

Mobile: [+27 \(0\)82 458 3571](tel:+270824583571)

www.3dprintingsystems.co.za

- Entrants are limited to printing volumes of 120 x 120 x 120 mm for their designs. All components of the design must fit within the allowed volume although the gadget can consist of several components that can be assembled afterwards.*
- Printing of the first 100 qualifying entries will be done by the I2P labs across South Africa using the UP Mini printers.*
- Understand the equipment, process, material and research the techniques used by designers when using this Filament Deposition*

Modelling (FDM) technology. Factors such as support material, build angles, print bed size-volume, type of material etc. will have an effect on the actual outcome.

- *Minimum allowed wall thickness of components should preferably not be less than 1.0 mm, rather 2mm or more.*

Forward an email to design@rapdasa.org for any further queries regarding the design competition and related issues.

Evaluation Criteria

All entries will be judged according to a score card matrix, points will be awarded against certain criteria. The highest score wins.

The criteria satisfies a wide spectrum of product related requirements. These include factors such as design, engineering, cost, feasibility, marketing and the freedom to express oneself.

Judging Criteria:

- *Novelty*
- *Inventiveness*
- *Functionality*
- *Cost effectiveness*
- *Aesthetic appeal*
- *Engineering principals*
- *Perceived value*
- *3D printing knowledge*
- *Target market*
- *Creativity*
- *Environmental impact*
- *Freedom of expression*
- *Geometry quality (3D printability)*

Submission requirements:

Entries can be designed in any CAD software as long as .stp, .xt, .stl, files are submitted to the competition. Typical 3D modeling files.

Entrants are encouraged to submit a design report of their designs as a separate document. This report can include renderings and a description of the particular product. Points will be awarded to the design report if needed to determine a winner. The file format can be in pdf format or a MS Word document (max 5MB).

Include:

- *Background information to support/describe the design philosophy used.*
- *Assembly/Operation procedures.*
- *Description of materials.*
- *FEM results of designs to indicate, for example, mechanical loading.*
- *Calculations and decisions.*
- *Manufacturing procedures (such as build orientation etc.).*
- *Feasibility or market report (include social media statistics of “Likes” etc.)*

Prizes

Please visit www.rapdasa.org, design competition heading and choose the Prizes tab.

Winners

Five categories resulting in five grand prizes, the highest score in each category will win a 3D printer and R6000 AM related voucher. The remaining 10 positions will also win vouchers depending on the scores achieved. Please see the design competition heading on the (www.rapdasa.org) website.

How to enter:

To enter the competition, visit the RAPDASA website (www.rapdasa.org) and complete the online registration form under the Design Competition heading. Upload your design and comments on your design (optional) as a Word file under the heading allocated for this.

Official rules

By submitting an entry to the RAPDASA design competition, (“the Competition”) you are agreeing to be bound by the following legal terms (the “Official Rules”). The Official Rules also incorporate by reference the additional terms specified at the RAPDASA website (the “Competition Website”). THESE OFFICIAL RULES SUPERSEDE ANY OTHER RULES AND TERMS & CONDITIONS.

General information:

Participation is subject to all local laws and regulations. Void where prohibited or restricted by law. Multiple Entries (as defined herein) are permitted. Each Entry will be reviewed independently. You are responsible for checking applicable laws and regulations in your jurisdiction before participating in the Competition to make sure that your participation is legal. You are responsible for abiding by your employer's policies regarding participation in the Competition. Organisers and Sponsors disclaim any and all liability or responsibility for disputes arising between you and your employer or any other person/ entity related to this Competition. You are responsible for all taxes and reporting related to any award that you may receive as part of the Competition.

Eligibility:

The Competition is open to only South Africa citizens over the age of 18 at the time of entry. Participants are not eligible to be nominated or provide input to the judging of the Competition. You are solely responsible for all equipment, including a computer and modem necessary to establish a connection to the World Wide Web; access to the World Wide Web and any telephone, data, hosting or other service fees associated with such access, as well as all costs of any nature whatsoever incurred by or on behalf of the Entrant in participating in the Competition.

Competition objective:

The objective of the Competition is to expose 3D printing to the general public and to encourage all South Africans to participate.

Registration:

All of the registration information that you provide is collectively referred to as your "registration". By registering and submitting your Entry (defined herein), you formally accept the Official Rules of this Competition.

By registering and submitting an Entry, you agree that (a) your submission/ entry is complete, correct and accurate and (b) your registration may be rejected or terminated and all Entries submitted by you may be disqualified if any of the information is (or Sponsors have reasonable grounds to believe it is) incomplete, incorrect or inaccurate. You are solely responsible for your registration. All registration information is deemed collected in the Republic of South Africa.

Entrant:

Each registered individual or Team is referred to as an "Entrant" in these Official Rules.

Entry:

An "Entry" is a submission uploaded to the Competition Website in the manner and format specified on the Competition Website. Entries must be in English, received on or before 01 October and adhere to the guidelines. Entrants may submit multiple, non-identical Entries.

Organisers are not responsible for (a) late, lost, stolen, damaged, garbled, incomplete, incorrect or misdirected Entries or other communications, (b) errors, omissions, interruptions, deletions, defects, or delays in operations or transmission of information, in each case whether arising by way of technical or other failures or malfunctions of computer hardware, software, communications devices, or transmission lines, or any other manner or whatsoever or (c) data corruption, theft, destruction, unauthorized access to or alteration of Entry materials, loss or otherwise. Organisers are not responsible for electronic communications or emails which are undeliverable as a result of any form of active or passive filtering of any kind, or insufficient space in any email account to receive email messages. Organisers disclaim any liability for damage to any computer system or any other systems resulting from

participation in, or accessing or downloading information in connection with, the Competition.

Organisers reserve the right in their sole discretion to disqualify any Entrant who Sponsors discover has undertaken or attempted to undertake the use of designs and specifications other than those provided, or who uses the Design and Specifications other than as permitted according to the Official Rules and guidance specified.

Sponsors reserve the right to modify, remove or add data through the web site www.rapdasa.org notifying participants, via email using the email address associated with their registration and/or by such other reasonable means as organisers may determine. Entrants are urged to consult the web site www.rapdasa.org regularly during the Competition Period.

Organisers shall have the right to remove any comment or posting related to the Competition from the Competition Website in their sole discretion at any time and for any reason.

BY REGISTERING FOR THE COMPETITION, YOU ACCEPT THE CONDITIONS STATED IN THESE OFFICIAL RULES, AGREE TO BE BOUND BY THE DECISIONS OF THE JUDGES AND WARRANT THAT YOU ARE ELIGIBLE TO PARTICIPATE IN THE COMPETITION. IF YOU DO NOT ACCEPT ALL OF THESE OFFICIAL RULES, THEN PLEASE DO NOT REGISTER FOR THE COMPETITION. WE RECOMMEND THAT YOU PRINT A COPY OF THESE OFFICIAL RULES FOR YOUR FUTURE REFERENCE.

INTELLECTUAL PROPERTY RIGHTS:

Entries:

By submitting an Entry, you are not granting organisers any rights to any patents or pending patent applications related to the technology described in your Entry and organisers makes no claim to ownership of your Entry or any intellectual property that it may contain.

By submitting an Entry, you do grant organisers certain limited rights as set forth in these Official Rules. By submitting an Entry, you consent to the use, by organisers, employees, agents, their sponsors, affiliates, subsidiaries, parents, and licensees, of your name, likeness, and image, prize information (if an award winner), your company or institution name (if your Entry is from or on behalf of a company or institution), in connection with the Competition, in any media or format now known or hereafter invented, in any and all locations worldwide, without any payment to or further approval from you. You agree that this consent is perpetual and cannot be revoked.



You agree that nothing in the Official Rules grants you a right or license to use any name and/ or trademark or service mark. You grant to organisers the right to include your company name (if your Entry is from a company) as an Entrant on the Competition Website and in materials related for promotion of the Competition. Other than these uses, you are not granting organisers any rights to your trademarks.

Prize Winners:

By accepting a prize award for your Entry, you are not assigning any intellectual property rights to the organisers of the competition or their sponsors. Intellectual property on Entries remains with the Entrant and no claims will be made to such.

Prize hand over terms and conditions

- 1. The prize on offer is classified as a transaction between the sponsor and the recipient, RAPDASA as an organization is purely the event organizer and has no commitment or involvement with the foresaid transaction and accept no liability in this regard.*
- 2. RAPDASA shall not be held responsible if the sponsor does not honor the agreement by not supplying the prize or service originally offered.*
- 3. Entrants shall be deemed to have accepted these Terms and Conditions.*
- 4. The prize is non-exchangeable, non-transferable, and is not redeemable for cash or other prizes.*
- 5. To enter the competition you have to be a South African citizen living in South Africa. International entries from South Africans will not be taken into consideration.*
- 6. Only one entry per design. Entries on behalf of another person will not be accepted and joint submissions are not allowed.*
- 7. RAPDASA accepts no responsibility for entries that are lost, delayed, misdirected or incomplete or cannot be delivered or entered for any technical or other reason.*
- 8. The closing date of the competition is 1 October 2016. Entries received outside this time period shall not be considered.*

9. One winner per category will be announced at the gala evening on the 2Nd November 2016. The Grand prize and voucher will be handed over. Deliveries, collections and warrantees must be arranged between the recipient and the sponsors. RAPDASA takes no responsibility in this regard.

10. The 10 runner-up winners will be notified of their winning vouchers on the night of the gala evening after the prize giving ceremony.

11. RAPDASA accepts no responsibility for any costs associated with the prize and not specifically included in the prize (including, without limitation, travel to and from the Venue).

12. The finalists will be notified by email from 15 October 2016. If a winner rejects their prize or the entry is invalid or in breach of these Terms and Conditions, the winner's prize will be forfeited and RAPDASA shall be entitled to select another winner.

13. The winner may be required to take part in promotional activities related to the RAPDASA design competition and hereby warrants he/ she or it will do so.

14. RAPDASA accepts no responsibility for any damage, loss, liabilities, injury or disappointment incurred or suffered by you as a result of entering the competition or accepting the prize this will also include death, personal injury, fraud or fraudulent misrepresentation as a result of its negligence.

15. RAPDASA shall not be liable for any failure to comply with its obligations where the failure is caused by something outside its reasonable control. Such circumstances shall include, but not be limited to, weather conditions, fire, flood, hurricane, strike, industrial dispute, war, hostilities, political unrest, riots, civil commotion, inevitable accidents, supervening legislation or any other circumstances amounting to force majeure.

Business Relationship:

Participation in this Competition does not create an obligation on either your part or the part of the organisers or their sponsors to enter into any further business relationship or to sign any commercial agreement. If desired, organisers and winners may negotiate in good faith a further business relationship that is mutually acceptable, but neither organiser nor winner is under any obligation to do so.

Confidential information:

Since organisers do not wish to receive or hold any submitted materials “in confidence” it is agreed that, with respect to your Entry, no confidential relationship or obligation of secrecy is established between organisers and you, the company you represent when submitting an Entry, or the owner of any part of your Entry.

Warranties:

By submitting an Entry, you represent and warrant that all information you enter on the Competition Website is true and complete to the best of your knowledge, that you have the right and authority to submit Entries on your own behalf or on behalf of the persons and entities that you specify in the Entry, and that your Entry:

(a) is your own original work, or is used by permission with full and proper credit given within your Entry;

(b) does not contain confidential information or trade secrets (yours or anyone else’s) and is not the subject of a registered patent or pending patent application;

(c) does not violate or infringe upon the patent rights, industrial design rights, copyrights, trademarks, rights of privacy, publicity or other intellectual property or other rights of any person or entity;

(d) does not contain malicious code, such as viruses, timebombs, cancelbots, worms, Trojan horses or other potentially harmful programs or other material or information;

(e) does not and will not violate any applicable law, statute, ordinance, rule or regulation;

(f) does not trigger any reporting or royalty obligation to any third party; and

(g) was not previously published and has not won any other prize/award.

A breach of a warranty set out in this provision will result in the corresponding Entry being invalid. In addition, you agree to indemnify Sponsors and Organisers against all loss, damages and costs incurred by the Sponsors and Organisers arising from your breach of the warranty.