

RULEBOOK FOR TinkerWiZ 1.0



INTRODUCTION

Mean Mechanics, the robotic club of IITGN, is organizing an event-cum-contest, a virtual build-a-thon: **TinkerWiZ 1.0.** This will take place on the <u>TinkerCad</u> platform -. An opportunity to explore your creativity in the field of robotics and Technology. **Prizes worth Rs. 3000/-** will be awarded to the winners (1st and 2nd place).

The theme for the contest will be released on D-Day (17th Oct) 30 minutes before it begins. Based on the given theme, you will have to identify a valid problem. You will then have to find a solution to the problem and implement it electronically on TinkerCAD. You will have 12 hours to submit your entry as mentioned in the **RULES** and make sure you are well aware of the TinkerCad platform before you fire up for the competition because better you know handier will be the tools in TinkerCad. All participants will be issued a **certificate** for participating in the Event.

Basics on TinkerCAD modeling:

- 1. https://www.youtube.com/watch?v=9 5jfH27yZA
- 2. https://www.youtube.com/watch?v=FoXk6OL8GfQ

RULES:

- 1. Registrations for the contest starts on 14th October, ends on 16 th October at 11:59 PM
- 2. The event will be conducted on 17th October 2021: 12 PM to 11:59 PM
- The theme for the contest will be revealed 30 minutes before the event starts.
- 4. **Team size:** Minimum of 2 and maximum of 4 members can register in a single team.
- 5. **Submission format**: Video recording of simulation and a PDF briefly explaining the solution, which should be submitted via this form.
- 6. Participants will be updated regularly via Email.
- 7. A participant cannot register in more than one team.
- 8. The selection of the winner will be decided based on some judging parameters which will be discussed later.
- 9. Organizers reserve the right to disqualify a team if found to be using any unfair means and obstructing the flow of the event.
- 10. In case of any discrepancy, the decision of the organizers will be final.

JUDGING CRITERIA

Out of **100 points**, a team will be awarded distinctive points based on the following criteria:

- The originality of the solution (30 points).
- The practicality of the solution (30 points)...
- Innovation and Creativity (30 points).
- Total cost (economic feasibility) of the work (calculated from the price table below while evaluation) (10 points).

COST OF EACH COMPONENT

Arduino UNO	35
AT tiny	10
ICs (741 opAmp/ LM393 and any in IC dialog box)	10
Node MCU - ESP8266 (Wifi Module)	20
Any of the Logic Gate	10
H-bridge motor driver(L293D)	15
Pololu Simple motor connector	20
Other power control unit including Transistor and Mosfets	15
9V /1.5V/ 3V batteries	Free
Breadboards, Connectors, and Instruments	Free
Resistors	Free
Diode/ Capacitor/ Inductor	2
DC Motor / Servo / Vibration Motor	15
LED / NeoPixel(All types)/ & 7 segment display / Buzzer(Piezo)	5
IR Remote	15
Any of the sensors	20
Push Button/Potentiometer/ Photoresistor / DIP switch/Slide Switch	2
Any other component	30

Please feel free to utilize any of TinkerCAD's components. The cost criteria will not be strictly based on the product's entire ultimate cost. We'll also look at whether or not anything you did was necessary and reasonable. Using cost-efficient tools to attain your goals will undoubtedly benefit you.

The submission guidelines and link for the submission form are provided in the earlier section in the rulebook.

ALL THE BEST!!!

For any query, Contact:

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