MathWorks
Accelerating the pace of engineering and science

MathWorks Minidrone Competition

The MathWorks Minidrone Competition will introduce participants to the Model-Based Design workflow using Simulink. The competition consists of two rounds.

- **Round 1 Simulation Only**
  Teams will work virtually on a problem statement and submit their models to MathWorks.
- **Round 2 Simulation and Hardware Deployment**
  The teams that qualify from Round 1 will be invited to the Round 2 event at IROS 2018, Madrid. Teams will deploy their Simulink model at the live event on the Parrot Mambo Minidrone hardware.

Competition Schedule

Task	Deadline
Submission of simulation model	27th July 2018
Declaration of the finalists selected for Round 2	17th August 2018
Round 2 Setting up of hardware and testing	3rd October 2018
Round 2 live event and winners selected	4th October 2018

Participating teams will be provided with complimentary MathWorks software. The tasks for Round 1 of the competition along with the details of the initial model will be provided to each of the teams by e-mail post registration.

How to Enter

1. The Competition will have two rounds. Round 1 will be a simulation round and Round 2 will be held at the IROS Conference in Madrid, Spain.
2. Each team member must register on MathWorks' website to participate in Round 1.
3. Teams must have a minimum of two people and a maximum of four people.
4. Once the registration form is completed and vetted for accuracy (within 72 business hours), you will receive instructions on how to participate in Round 1 of the Competition.
5. In Round 1, teams must submit a simulation model via email to studentcompetitions@mathworks.com by July 27, 2018 by 5:00 p.m. EST to be considered for Round 2. Only one entry may be submitted by each team. Up to 10 teams will be selected to participate in Round 2 of the Competition. These teams must be present at the IROS Conference on October 3 – 4, 2018 in order to participate in Round 2.
6. An overall winning team will be selected on October 4, 2018.
7. Participation is free and no purchase is required (MathWorks is not paying for travel and accommodation).

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Judging and Prizes

- Round 1 of the Competition will be judged by MathWorks engineers. Teams will need to use their modeling skills to refine a Simulink Model. The most efficient and fastest models will be selected for Round 2. Finalists for Round 2 will be announced on August 17, 2018. If two or more entries receive the same winning score, the corresponding submitters will both move on to Round 2.
- Round 2 of the Competition will also be judged by MathWorks engineers. The teams will need to use their programming and modeling skill to complete a series of engineering tasks using the MathWorks provided mini-drone in the fastest time to win. If two or more entries receive the same winning score, the corresponding submitters will receive the same prize. Decisions by the judges are final.
- Prizes will be awarded for the first, second, and third placed teams.
    - 1st Prize: $2000 USD
    - 2nd Prize: $1500 USD
    - 3rd Prize: $1000 USD
- The first, second, and third placed teams must attend the event on October 4, 2018 to collect their prize. If any one of these teams is not in attendance, their prize will be awarded to the next-placed team. There is no cash alternative to the prize.
- The names of the top three winning teams and their team members will be announced on the MathWorks website, IROS website, and MathWorks social properties such as Facebook, Twitter, YouTube and LinkedIn.

Email ***studentcompetitions@mathworks.com*** for any further questions or clarifications.

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