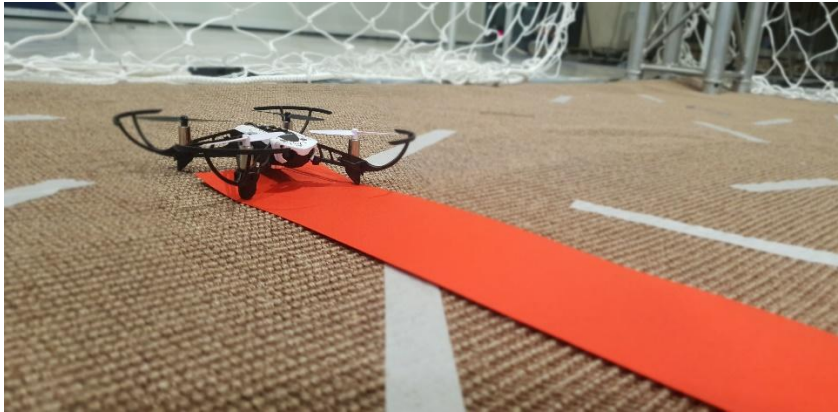


# MathWorks Minidrone Workshop at WEEF&GEDC 2024

## Overview

Learn about control systems, navigation, and image processing from the perspective of a drone.

Using this workshop, we are trying to help students develop industry-relevant skills using drones by making education fun! Through this workshop, you will learn how to model, simulate, and fly a drone. The workshop will walk you through control systems, path planning, and image processing for a drone and showcase how you can deploy the Simulink model on the drone hardware.



The workshop will culminate in a hands-on friendly fun game between the participants. Join us to learn how to design a drone-based autonomous system.

## Highlights

The workshop will equip the students with the basics of the following key skills which are relevant in the aerospace, automotive, and robotics industry:

- Simulation and Control
- Finite State Machines and Control Logic
- Image Processing and Computer Vision
- Embedded Code Generation and Hardware Deployment


## Who can attend?

- Students
- Academicians

## Prerequisites

- Complete [MATLAB Onramp](#) and submit the progress report link

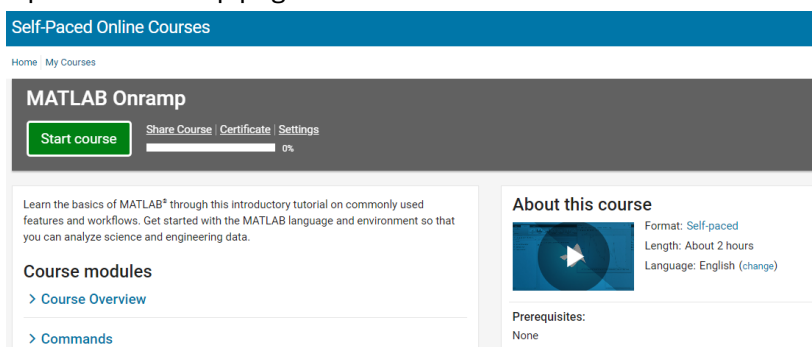
### How to access the pre-requisite courses?

1. Sign in to your MathWorks Account or create a new one, if you do not have one.  
Link to Sign in to your MathWorks Account or create a new one:  
<https://www.mathworks.com/login?uri=%2Fmwaccount%2F>
2. Navigate to the  at the top right of the page
3. Select the 'Online training' option
4. Select 'MATLAB Onramp' and complete the course (Time to complete: ~ 2 hours)

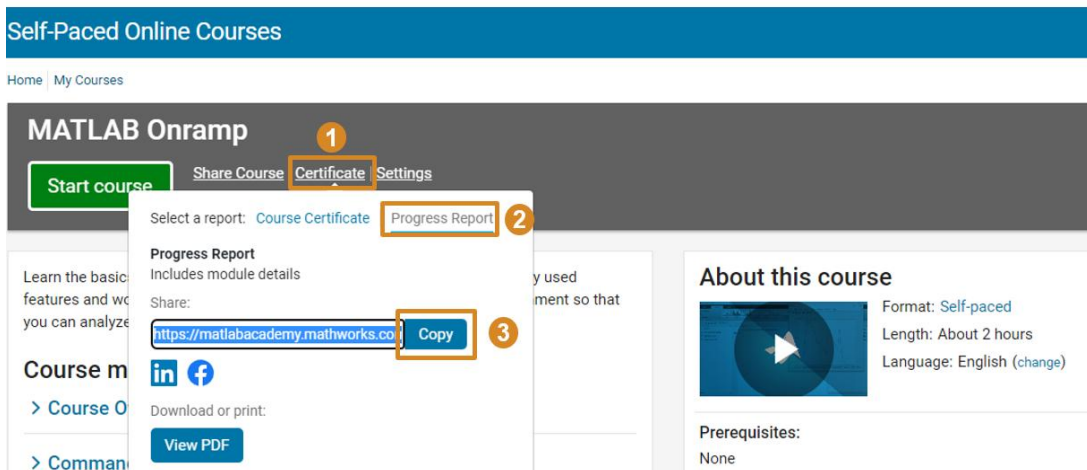
### What to submit?

After 100% completion of the course (MATLAB Onramp), use the following process to submit the links of your Progress Report:

1. Open the Onramp page



2. Click on 'Certificate'
3. Under the dialogue box, select 'Progress Report' and select 'Copy'



Share the copied 'Progress Report' link with organizing team via an email More information on this will be shared with registered students.

## System Requirements

- Latest version of MATLAB (R2024b) to be installed
  - o Students can consider using their campus wide license to install MATLAB and relevant support packages for the workshop. List of toolboxes to be installed will be communicated to shortlisted students
  - o Reach out to organizing team in case of any support.