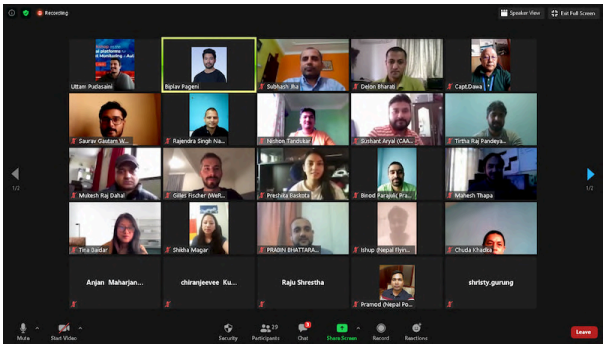
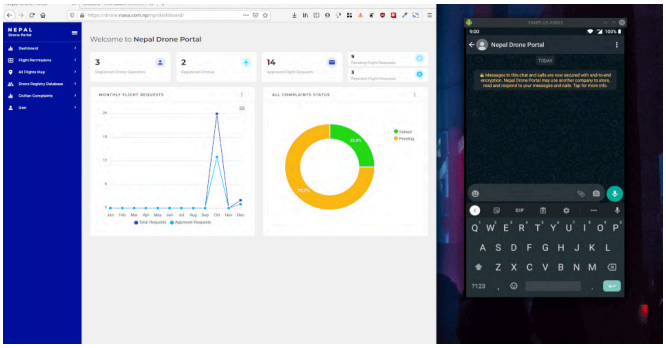
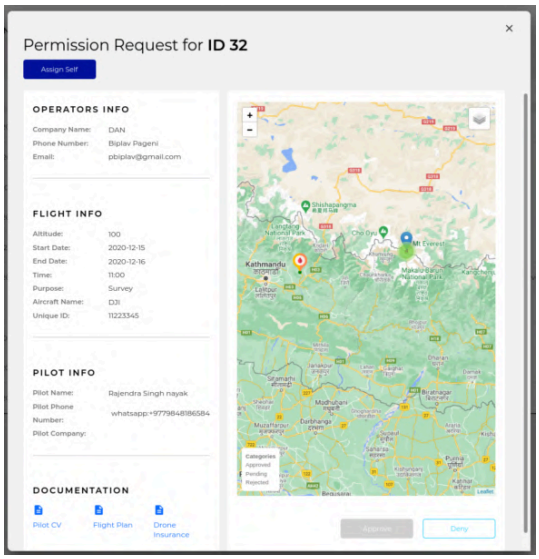
Rapid Drone Authorization Platform Workshop



A screenshot of the workshop participants



The portal prototype developed



A screengrab of a flight permission request

OVERVIEW	
Flying Labs	Nepal Flying Labs
Location	Kathmandu, Nepal
Date	October 2020
Length (number of days)	3 Days
Sector program (optional)	AidRobotics
Format	Virtual Workshop

Co-organizer if applicable	NAXA and WeRobotics
SDGs	GOAL 9: Industry, Innovation and Infrastructure GOAL 17: Partnerships to achieve the Goal

SCOPE & OUTCOMES	
Type of workshop	1. Introductory training to drones. 2. Technical training of professionals (testing the developed prototype). 3. Sector-specific training of professionals. 4. Discussion on the need for digital platforms to help streamline drone registration, flight permissions approval, and flight monitoring for Unmanned Aerial Vehicles (UAV) operators and the authorities. 5. Train the trainer. 6. Hands-on group sessions, discussions, and Q&A sessions.
Goal of the Workshop	1. Exploring the digitization of the UAV Authorization process. 2. Create coordination for drone flights for disaster response. 3. Present a newly developed mobile platform to expedite drone flight permissions. 4. Policy discussions and recommendations.
Expected outcome for participants	● Learning from international practices regarding the use of digital systems for UAV registrations and flight operations. ● Understanding the International Civil Aviation Organization's (ICAO) vision. ● Discussing the potential and functionalities of the *WeFly Portal* among all drone-related government stakeholders of Nepal. ● The portal prototype developed by Nepal Flying Labs and NAXA with support from WeRobotics and Twilio aimed to move from paper and lengthy flight permission approvals to a rapid authorization process taking place digitally. The idea behind this was to help different authorities coordinate permission approvals, especially for contexts such as disaster response, which are time-critical. It would also help many pilots to apply for permissions at once and fly at the same time in

	close locations.
Confirmed outcome after workshops	• ICAO shared its vision and current programs regarding the plans and regulatory framework related to UAS. • Nepal Police and representatives from local governments shared the parameters they looked after while responding to drone permission requests at the local level. They also highlighted the gap in federal officials identifying those decisions made by local jurisdictions. • A practical design thinking team exercise was conducted to test the potential and functionalities of the *WeFly Portal*. Participants were grouped into teams to better understand and evaluate process flow for coordination for UAV flight permissions during disaster response. • Civil Aviation Authority of Nepal (CAAN), Ministry of Home Affairs (MoHA), Nepal Police, and Ministry of Communication and Information Technology (MoCIT) shared the existing practices of handling drone permission requests within their departments. Also covered were current regulations, and their concerns about documentation and database management. • The teams shared what they liked and their suggestions for improving the platform as per Nepal's specific context. • A policy recommendation document was drafted from this workshop and provided to the participants and the government's representatives for future recommendations.
Eventual next steps	• Future recommendations by the authorities to integrate the portal in the drone permission approval process and the monitoring of UAV activities. • Further development of the web portal.

PARTICIPANTS	
Profiles and number of participants	Over 45 national and international stakeholders from 9 countries participated in this virtual workshop featuring • 5 Staff from organizations (non-profit/for-profit/research institutes, etc.)

	• 5 staff from the government (ministries, government service, etc.) • 3 professionals (individual consultants, researchers, experts, teachers, etc.) • 3 members of other Flying Labs.
Name of participants' organizations	1. The International Civil Aviation Organization (ICAO) 2. Ministry of Home Affairs (MoHA) 3. Ministry of Communication and Information Technology (MoCIT) 4. Civil Aviation Authority of Nepal (CAAN) 5. Nepal Police Communication Directorate 6. Department of Survey (Changunarayan Municipality) 7. NAXA
Gender ratio	1 Female : 3 Males
Who paid for the workshop?	Free workshop
Participant fee rate (if applicable)	The workshop was free for all participants.
Scholarships offered?	The workshop was free for all participants.

CONTENT	
Workshop components	1. Discussion on the need for digital platforms to help streamline drone registration, flight permissions approval, and flight monitoring for UAV operators and the authorities. 2. Presentations from national and international stakeholders. 3. Discussions and Q&A sessions on best practices, and review of the rules and regulations in Nepal and across the globe. 4. Hands-on group sessions including user testing of the developed prototype.
Workshop resources used	Online virtual program
Approaches and methods used	We approached all the relevant stakeholders, government authorities (ministries and CAA Nepal), and the international aviation rulemaking organization (ICAO) which would play a prime role in the development and integration of such portals.

	They would also help to streamline drone registration and flight monitoring for UAV operators. Participants were divided into four teams: Team Aviation, Team Authority, Team Local Authority, and Team Frequency—where each team first designed its process flow, outlined the major challenges and pain points, and presented the conclusions to the entire group. The hands-on training delved into user testing of the WeFly Portal, with teams divided into four groups for the exercise's purpose. The pilot team was asked to rapidly respond to a disaster scenario by requesting UAV flight permissions to perform assessments. At the same time, the citizen group filed complaints about random UAV flights via WhatsApp. With that, both authority teams had to respond to the applications and complaints using the web-based application. The theoretical discussion session was followed by a practical hands-on session where the participants got a chance to test and evaluate the functionalities of the portal as per the theoretical discussion session. All participants participated individually during the discussion phase where they shed light on their visions, points of view, suggestions, and concerns. During the practical design thinking team exercise, the participants were divided into teams assigned the concerned roles to test the potential and functionality of the portal developed by the Nepal Flying Labs.