Frequently Asked Questions (FAQ) about
Certification System of NIST sUAV-STM

Q. What is NIST sUAV-STM?

A. It is the Standard Test Method (STM) of small Unmanned Aerial Vehicle (sUAV) and aerial drones developed by National Institute of Standards and Technology (NIST), USA. These test methods measure drone capabilities quantitatively by simple system using buckets. Standardizing test methods to visualize drone capabilities, NIST sUAV-STM promote drone innovation.

Q. What is the NIST sUAV-STM performance evaluation used for?

A. These test methods are developed to use for disaster response mainly. In United States, NFPA2400 standard for drone operation by fire services or disaster response organization require evaluation of sUAV-STM. These simple test methods spread worldwide including Japan in the field of disaster response.

Q. What is International Rescue System Institute (IRS) certification system of NIST sUAV-STM?

A. It is the International Rescue System Institute's own certification system for carrying out these test methods properly.

Q. What are the benefits of getting certification of NIST sUAV-STM?

A. These test methods enable to evaluate drone capabilities quantitively and compare with other results objectively: measuring performance improvement before and after training, comparing capabilities of different drones. Carrying out a test inappropriately makes test results instability, and there is concern over accuracy deterioration of evaluation results. By obtaining certification it can be shown that there is little discrepancy in the results of performance evaluation using sUAV-STM. Furthermore, IRS send staff to US every year to directly collect the latest information of NIST sUAV-STM, which is continuous reviewed and updated. IRS provides participants of this certification system with the latest information to utilize it on their activities.

Q. Can I use NIST sUAV-STM without IRS certification?

A. IRS cannot impose any restrictions on use of NIST sUAV-STM developed in project of US government. From the view of innovation by standardization of NIST sUAV-STM, it is not desirable for us to use or spread these test methods inappropriately.

Q. Does IRS certification system related to the national certification system for drone?

A. The NIST sUAV-STM certification system of IRS aims to ensure that STM is properly operated as a "measure" and the IRS does not judge how the NIST sUAV-STM certification corresponds to the national certification system for drones. (IRS will not be involved in who and how the "measure" is used.)

Q. Does getting IRS certification mean that I am certified by NIST?

A. No, it is not same officially because IRS gives certification independently. But as we mentioned bellow IRS has worked together with NIST on STM project for over 20 years and proud of working as liaison organization of NIST in Japan. Our certificate is practically equivalent as NIST's one.

Q. What is the relationship between IRS and NIST sUAV-STM?

A. IRS has cooperated with NIST on development of STM for over 20 years. Satoshi Tadokoro, IRS president, and Tetsuya Kimura, IRS chairman, are listed as collaborators on the guide of NIST sUAV-STM.
https://www.nist.gov/system/files/documents/2020/07/06/NIST%20sUAS%20Test%20Methods%20%20Introduction%20%282020B1%29.pdf
   Engaged in the operation of RoboCupRescue Robot League, executed as a part of STM development by NIST, for long time inside and outside Japan, IRS also has know-how of evaluation of STM. IRS continues to work with NIST on development and enlightenment of sUAV-STM. In addition, Tetsuya Kimura, only Proctor authorized by NIST in Japan, received the Cabinet Office Disaster Prevention Achievement Award for his contribution to spread of NIST STM in 2020.

Q. Why does IRS carry out certification for qualification of NIST sUAV-STM?

A. As NIST sUAV-STM had become known in Japan, members of IRS had requested to check to see if they had carried out NIST sUAV-STM appropriately. IRS, non-profit organization aims to make a safe and secure society with cutting-edge technology on disaster response, has knowledge useful in spread of NIST sUAV-STM and in safe and trusted drone operation. Therefore, we started this certification system.

Q. What types of NIST sUAV-STM certification programs are available?

A. As of April in 2022, we prepare certification of Administrator and Test Site. And we can issue official score report, scores evaluated by the certified testers on the certified test site.

Q. What is the procedure for IRS certification system of NIST sUAV-STM?
A. The procedure is as follows:
    (1) Participate in the authorized evaluation test
    (2) Take an examination (written test & practical skill test)
    (3) Submit application for evaluation based on test result
    (4) Receive certification

Q. How much does the certification of NIST sUAV-STM cost?
A. You will need to pay a fee to attend the evaluation meeting and certification. After receiving the certification, a renewal fee is also required. Please see appended tables for details.

Q. Where can I find information on NIST sUAV-STM?
A. Please see the following NIST web site.
    https://www.nist.gov/el/intelligent-systems-division-73500/standard-test-methods-responserobots/aerial-systems

Q. Is there Japanese version of the NIST sUAV-STM?
A. To certified personnel of NIST sUAV-STM, we provide useful material, such as score sheets and summery forms, translated by us for usage of sUAV-STM.

Q. When will NIST sUAV-STM test by IRS be held?
A. After that schedule has been decided, we will inform you on this web site.

Q. Can you carry out NIST sUAV-STM test for our organization?
A. According to the terms, we could accept the offer. Please contact the following address. irs_pr@rescuesystem.org

Q. Does IRS offer certification programs other than NIST sUAV-STM?
A. From 2008, the dawning of service robot market, IRS had offered certification course for safety engineers of service robot with NPO Institute for Safety Engineering. Certifying over 200 safety engineers, the course had contributed to approving safety of service robot before enactment of safety standard. Presenting the achievement of the course received the excellent presentation award in SI2008 and Tetsuya Kimura received MEXT Science Technology Award for the activities including the course. In 2014, safety standard for life support robot ISO13482 was published and the course is no longer active, as it has become clear what safety engineers need to accomplish.