



Ready for
- Nuclear Energy Industry
- Homeland Security



- Real-time radiometric heat map
- Minimize radiation exposure
- Cost effective monitoring



Drone - Fast & Safe

- Compact and light weight
- Long range wireless communication
- Radiation activity and spectroscopy
- Radiation dose heat map

DRIS

Drone-based
Radiation Imaging System



Measuring Radiation by Flying Over Long Distances

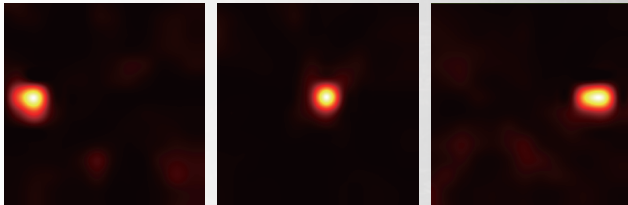
World's 1st gimbal mounted gamma camera for commercial drone



Applications

- Nuclear power plant inspection
- Nuclear power plant decommissioning
- Radioactive site decontamination
- Nuclear terrorism safety

Coded aperture imaging



FIELD TEST QR CODE



Specification

Real-time gamma ray imaging
AI powered radionuclide identification

| DRIS | |
|--------------------|--|
| Weight | 960 g (with gimbal) |
| Power | DC 12~20V (from Drone) |
| DAQ | MAETEL16 (100 MSPS / 16CH ADC, Intel SoC FPGA) |
| Collimator | Coded aperture (W) |
| Scintillator | GAGG-HR 19.1 × 19.1 × 7 mm ³ |
| Angular resolution | < 7 ° (Rank 13) |
| Energy resolution | < 7 % @ Cs-137 (Rank 13) |
| FoV | 45 ° |

| Drone | |
|------------------|-----------------------|
| Model | DJI M300 / M350 RTK |
| Controller | DJI RC Plus |
| Gimbal | DJI X-port (included) |
| Max transmission | 8 km |
| Max flight time | 55 minutes |



ARALE laboratory develops various cutting edge technologies in the field of radiation imaging. Developed systems include: Radiation detectors for national security and clinical and preclinical diagnostic nuclear medicine imaging systems for national healthcare. Additionally, software algorithms for high quality imaging tools are boldly explored!



Nuclear Medicine Imaging System



Industrial Radiation Detector



Software



www.aralelab.com

ARALE laboratory

Rm1315, Lotte Castle SKY-L65, Wangsan-ro 200,
Dongdaemun-gu, Seoul, South Korea