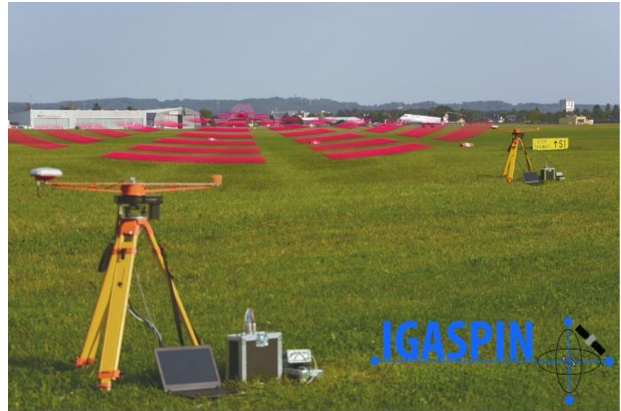




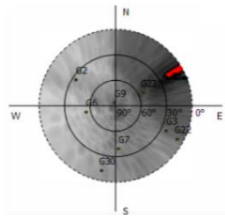
# RIDe



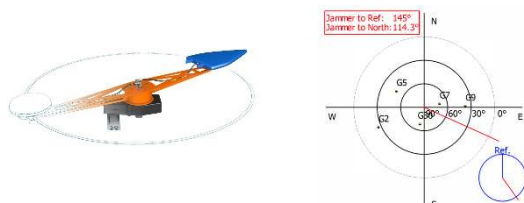
## Rotating Identification Device

### OVERVIEW:

**RIDe1** is a synthetic aperture antenna which using displacement information of an circular moving GNSS antenna can exploit the principle of spatial diversity for spoofing detection, direction-of-arrival (DoA) finding, and mitigation with Nulling.



**RIDe2** is a similar platform to RIDe1 which is additionally equipped with a directional antenna for determination of jamming DoA.



### FEATURES:

#### RIDe1-with 1 antenna

1. Spoofing detection.
2. Spoofing DoA finding
  - a. Elevation and azimuth,
  - b. Accuracy > 1° in both axes.
3. Spoofing mitigation
  - a. Nulling approach.
4. Supports all GNSS frequencies.

#### RIDe2-with 2 antennas

1. Jamming detection.
2. Jamming DoA finding
  - a. Azimuth,
  - b. Accuracy > 1°.
3. Supports all GNSS frequencies.

#### Both RIDes

1. Platform:
  - a. 1-4 rotation per second,
  - b. waterproof,
  - c. heating system.
2. Graphical User Interface (GUI)
  - a. easy configuration,
  - b. user feedback.
3. By installation of multiple RIDes, the interferer location can be determined (Accuracy > 3m).



RiDe1*- for spoofing	
Power [more than the noise level]	>5 dB/MHz
Type	-Time-synchronized -Non time-synchronized -Meaconing
Antenna	-1 omnidirectional antenna
Actions	-Detection -DoA finding -Mitigation
RiDe2*- for jamming	
Power [more than the noise level]	>5 dB/MHz
Type	Sinus, Chirp
Antenna	-1 omnidirectional antenna -1 directional antenna
Actions	-Detection -DoA finding

HARDWARE	
Weatherproof	-waterproof, -with a heating system
Rotation	1-4 rotations per second
Rotation radius	0.25-0.5 m
Weight	≈ 15 kgs
RF Front-End	
GNSS signals	Galileo E1, E5ab, E6 GPS L1 CA & L1C, L2P & L2C, L5 BeiDou-2 B11, B21, BeiDou-3 B1C, B2a, B3I GLONASS L1, L2 IRNSS L5 + S QZSS L1, L2, L5 SBAS L1
Signal IF sample rates (bandwidth)	Selectable: 5, 10 (standard), 20, 25, 50, 100 MSamples/Sec.
CONTROLLER UNIT	
OS	Microsoft Windows 10 Pro (incl. License und Inst)
Display	1x 17.3" Full HD IPS   144 Hz   Thin Bezel
Graphics Card	1x NVIDIA GeForce GTX 1650   4 GB GDDR6
Processor	1x Intel Core i7-9750H
Optional HW**	<ul style="list-style-type: none"> <li>▪ 1x Omnidirectional antenna</li> <li>▪ 1x Directional antenna</li> <li>▪ 2x RF cables</li> </ul>

\* All data subject to change.

\*\* Optional Hardware is included on request only.

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