

INNOVATION: **GuideR** RADAR SENSOR-REFLECTOR SYSTEM

GuideR is an innovative technology concept offering a radar guiding system.

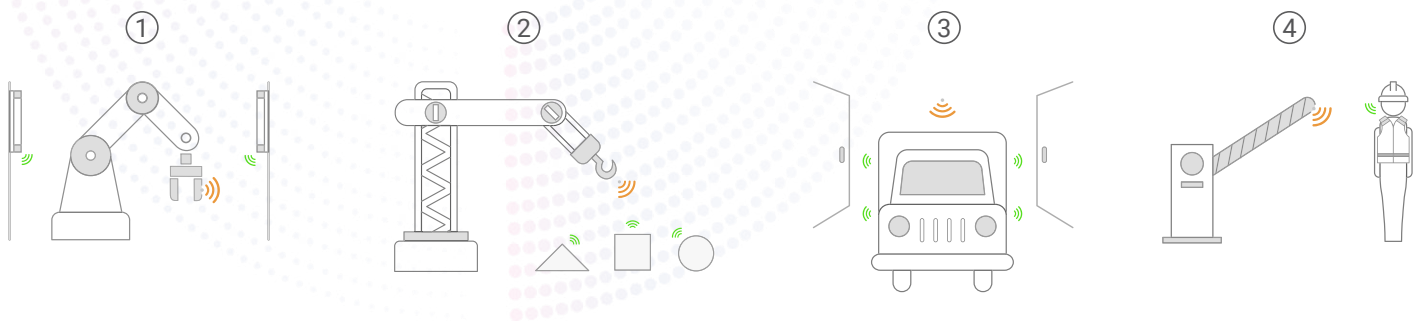
Contactless mm-Wave radar system is capable of determining: distance, angle, movement, micro-vibrations, speed, or even shape and orientation of any objects in focus.

GuideR system consists of:

- One or more radar sensors,
- One or more radar markers (reflectors),
- IP and algorithms,
- Single point of interface for connectivity,
- M2M or HMI interface.

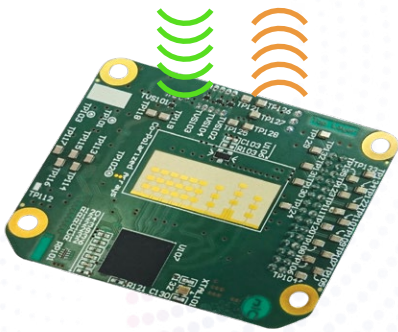
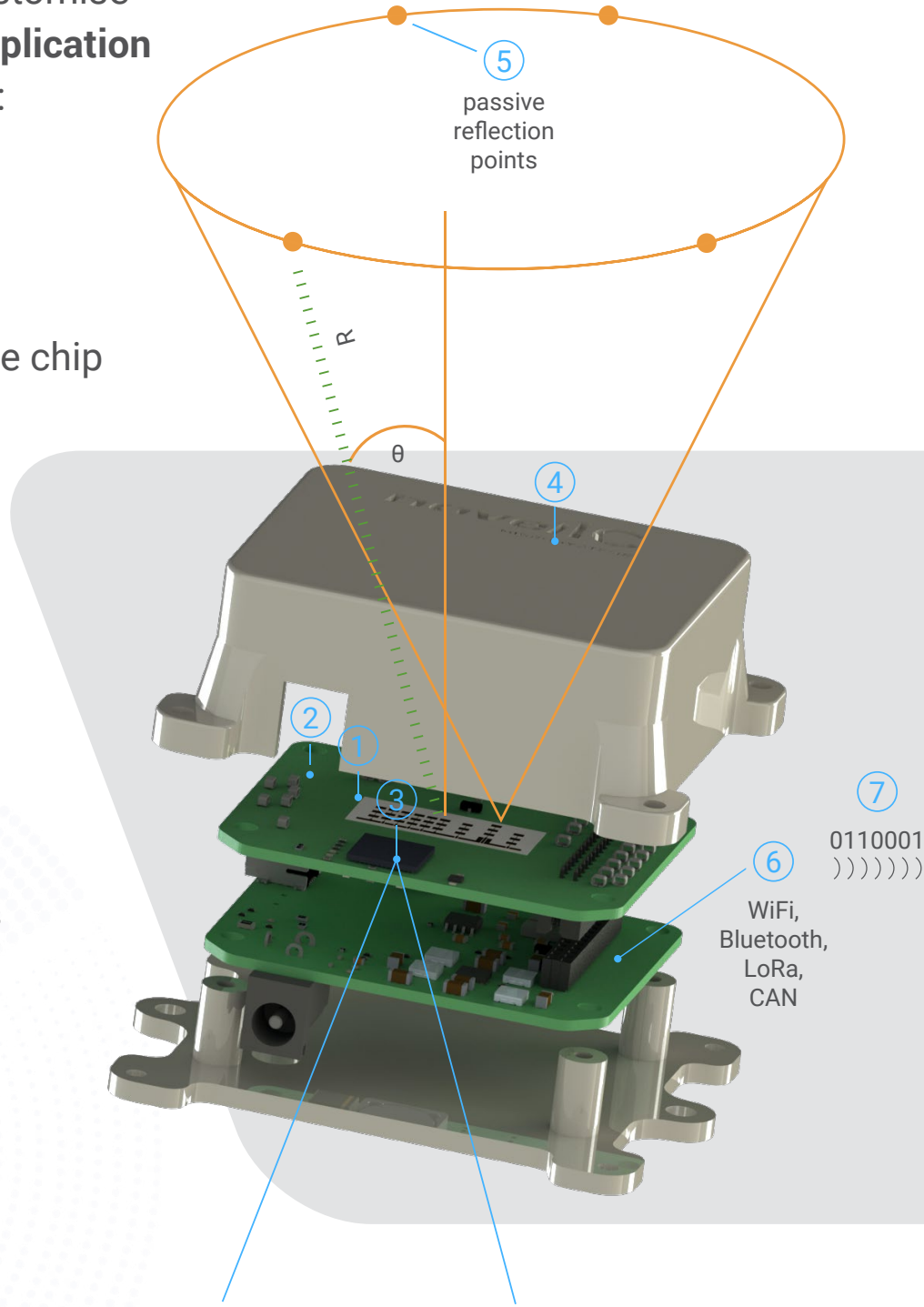
GuideR is a patented, extremely robust and high-performance guiding system for:

- ① Industrial Machinery & Robotics - movement in controlled and known area;
- ② Cranes and Objects Manipulation - precise detection of shape, position and 3D orientation;
- ③ Transportation & Smart Logistics - autonomous driving and parking in known area;
- ④ People - access control, personal security and safety enhancement.



Novelic provides technology for the GuideR, able to customise its components for **Application Specific** requirements:

- ① mm-Wave antennas
- ② PCB(s) + mm-Wave chip
- ③ algorithms and DSP
- ④ assembly and sensor boxing
- ⑤ reflectors
- ⑥ interface for connectivity
- ⑦ type and format of available data



$$\theta = \sin^{-1} \left(\frac{\lambda \Delta \varphi}{2\pi d} \right)$$

$$R = \frac{2B}{cT_{ch}} f_{IF}$$

Future GuideR products will be designed and tailor-made for specific Applications, in line with needs of our Partners