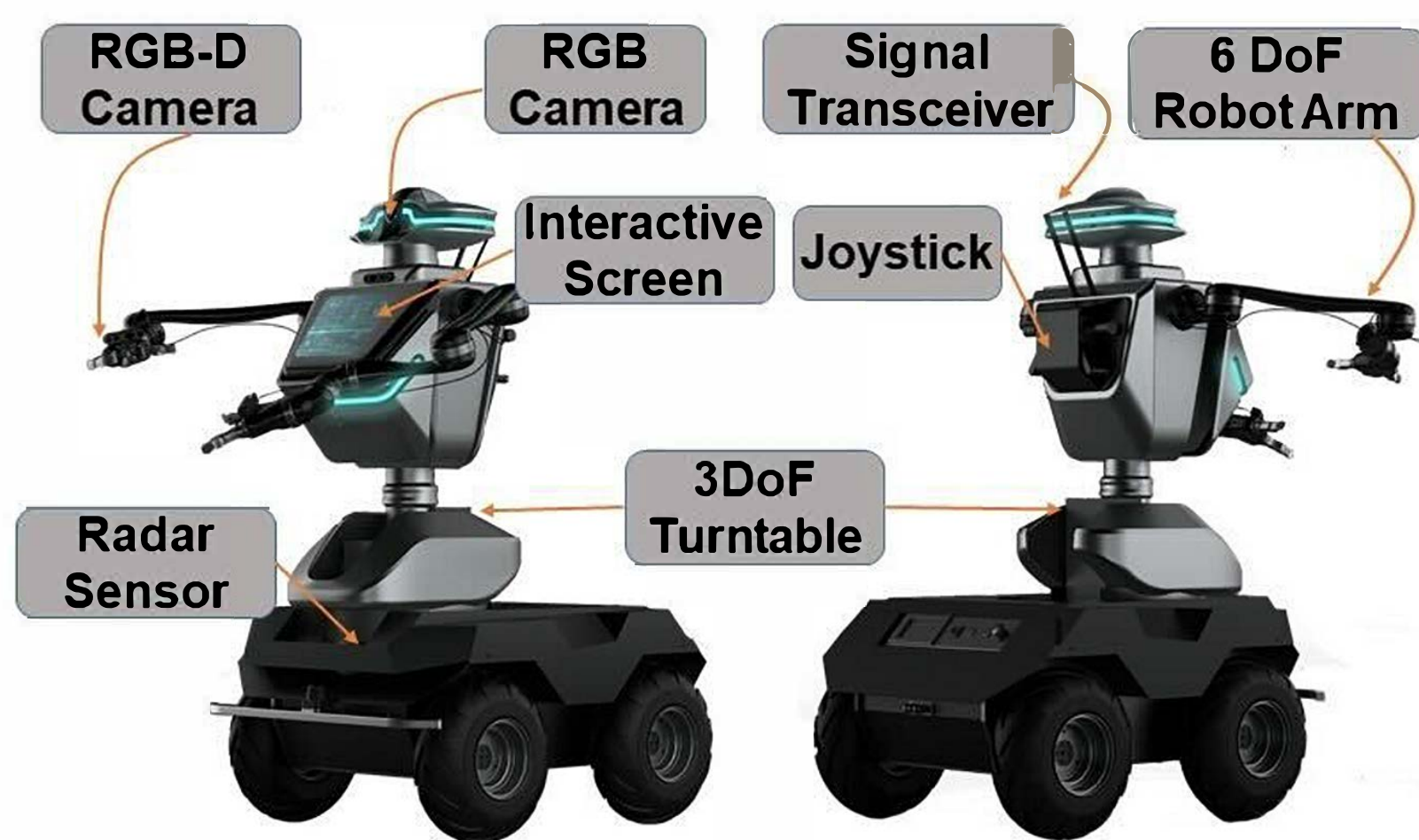


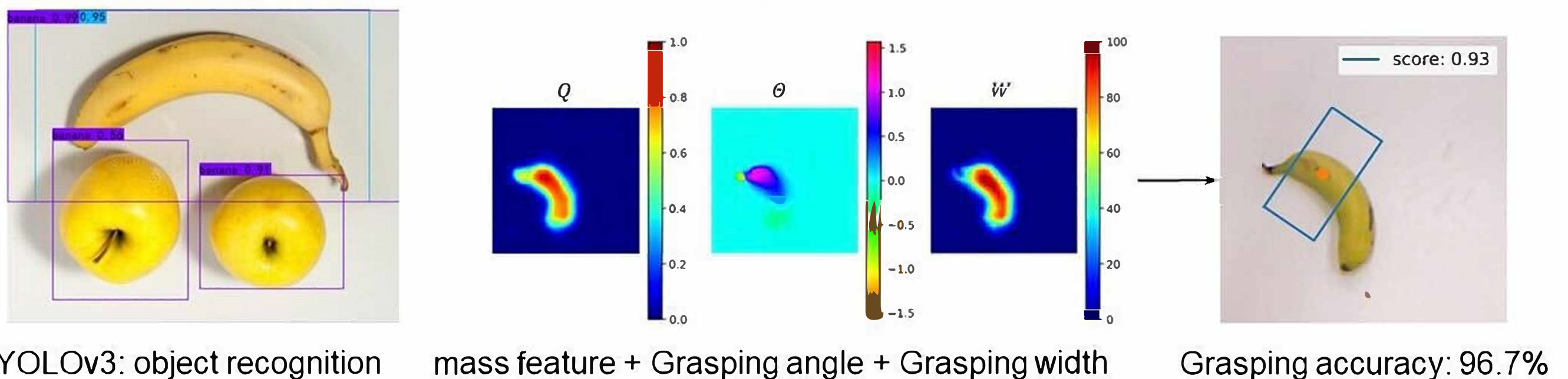
## Speech Recognition and User-Interactive Robot Skin for Natural and Safer Human-Robot Interaction

This research focuses on the intelligent and safe method for human-robot interaction, deployed on a self-designed dual-arm robot system.

- Mechanical design of silencers for different operating conditions of the hydraulic system.
- Fluid-structure interaction effects on the key components of hydraulic silencers.
- robot skin module design with intelligent sensing approach to enhance safer human-robot interaction.



### ➤ Mechanical design and Structure of the self-designed dual-arm robot platform.



### ➤ Grasping detection algorithm based on multi-scale residual network.

