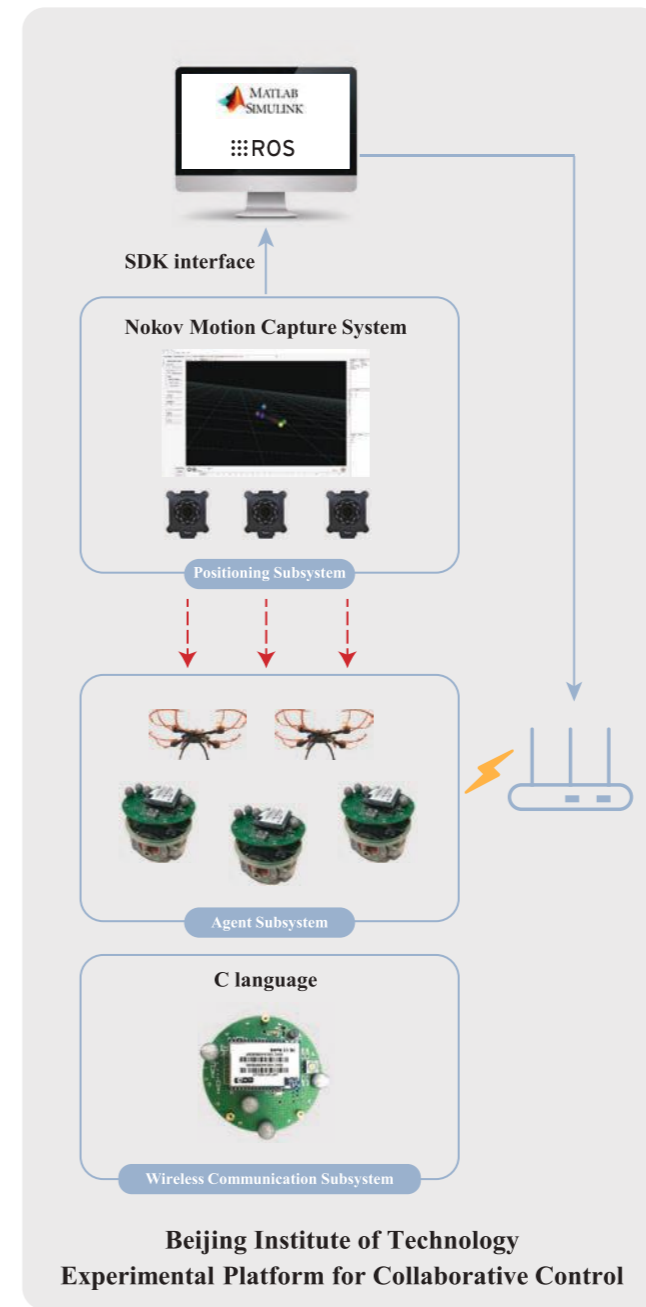




NOKOV

Applications in Robotics & UAV

Welcome To Our Booth B39&B40!



Beijing Institute of Technology
Experimental Platform for Collaborative Control



Data Provided by NOKOV

- The position, orientation, etc.
- The Yaw, Roll, Pitch, Quaternion, Euler angle, etc.
- The Speed, acceleration and other basic motion information
- The 3D coordinates of any part of the Target Multi-Agent and its overall space location information
- The speed, acceleration of each agent, and its relative distance, speed, etc.
- The joint angle of a human, animal, or robot

Solutions

- Providing basic motion data for Data Driving and Control of UAVs and Robotics
- Providing truth values in the validation of motion planning and control methods for Robotics and UAVs
- Providing real-time feedback for the motion of multiple agents

Applicable to

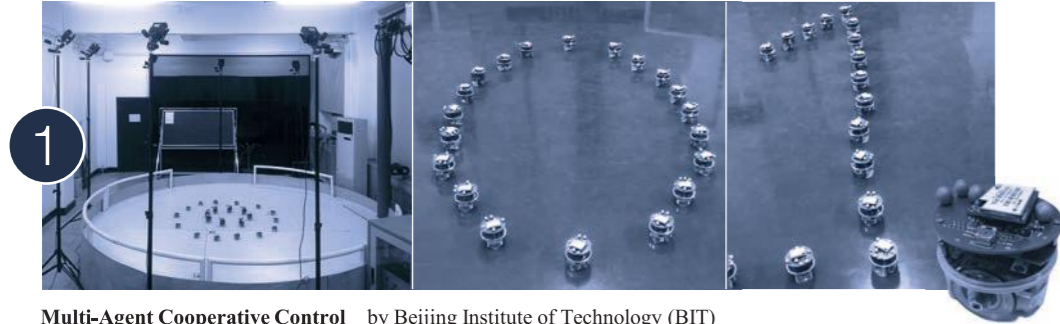
- Control, navigation and guidance of space aircrafts
- Network Cluster and Network Control
- Multi-Agent Team Formation and Cooperation
- UAV Autonomous Obstacle Avoidance and Following
- UAV Motion Planning and Control

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Case Studies



1 **Multi-Agent Cooperative Control** by Beijing Institute of Technology (BIT)



5 **Treatment Robot** by Xi'an Jiaotong University



2 **Supports with Exoskeleton Robots Design** by Beihang University



6 **UGV Direction Control** by China Automotive Technology & Research Center (CATARC)



3 **Optimization of Robotic Arm Control** by Wuhan University



7 **Optimizing Flapping-wing Aerial Robot in Super Space** by Harbin Institute of Technology



4 **Optimization of Hexapod Robot Algorithm** by Shanghai Jiaotong University



8 **Inspection of Power Tower** by China Electric Power Research Institute (CEPRI)



System Functions

- **Data Acquisition** It can acquire data including 3D coordinates, 6Dof, joint angle, Yaw, Roll, Pitch and Euler angle, and provide consistent and smooth motion data for the pose control and motion planning of robotics/UAVs.

- **Development of Experimental Network Platform for Multi-agent Collaborative Control** As a positioning system, it can help develop the Experimental Network Platform for Multi-agent Collaborative Control, and thus realize the large-scale multi-agent collaborative control.

- **Secondary Development** Data can be input into Matlab, C++ and other software in real time through SDK for secondary development and application.

Motion Capture Cameras

MARS Series

Specilized in the Core Performance of Motion Capture



Model	Resolution	No. of Pixels	Frame Rate	Latency	FOV	Interface
Mars 1.3H	1280×1024	1.3 MP	240 Hz	4.0 ms	57°×44°	GigE/PoE
Mars 2H	2048×1088	2.2 MP	380 Hz	2.4 ms	69°×40°	GigE/PoE
Mars 4H	2048×2048	4.1 MP	180 Hz	5.2 ms	52°×52°	GigE/PoE
Mars 12H	4096×3072	12 MP	300 Hz	3.0 ms	67°×52°	GigE/PoE

We also offer customized models, please email us for more information.

NOKOV Motion Capture System
 Applications in Robotics & UAV