

Bt-Fubots

IIS Social Cooperation Program Base Technologies for Future Robots

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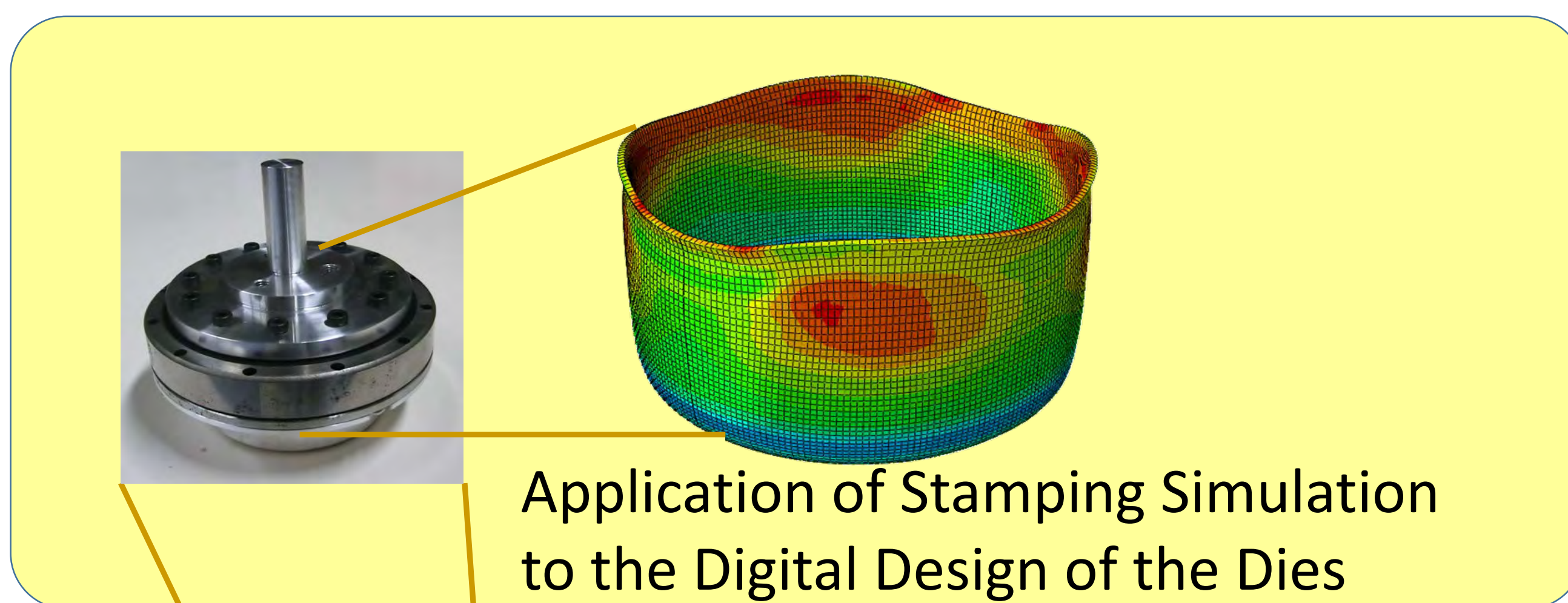
Supporting Company:

Nidec Corporation

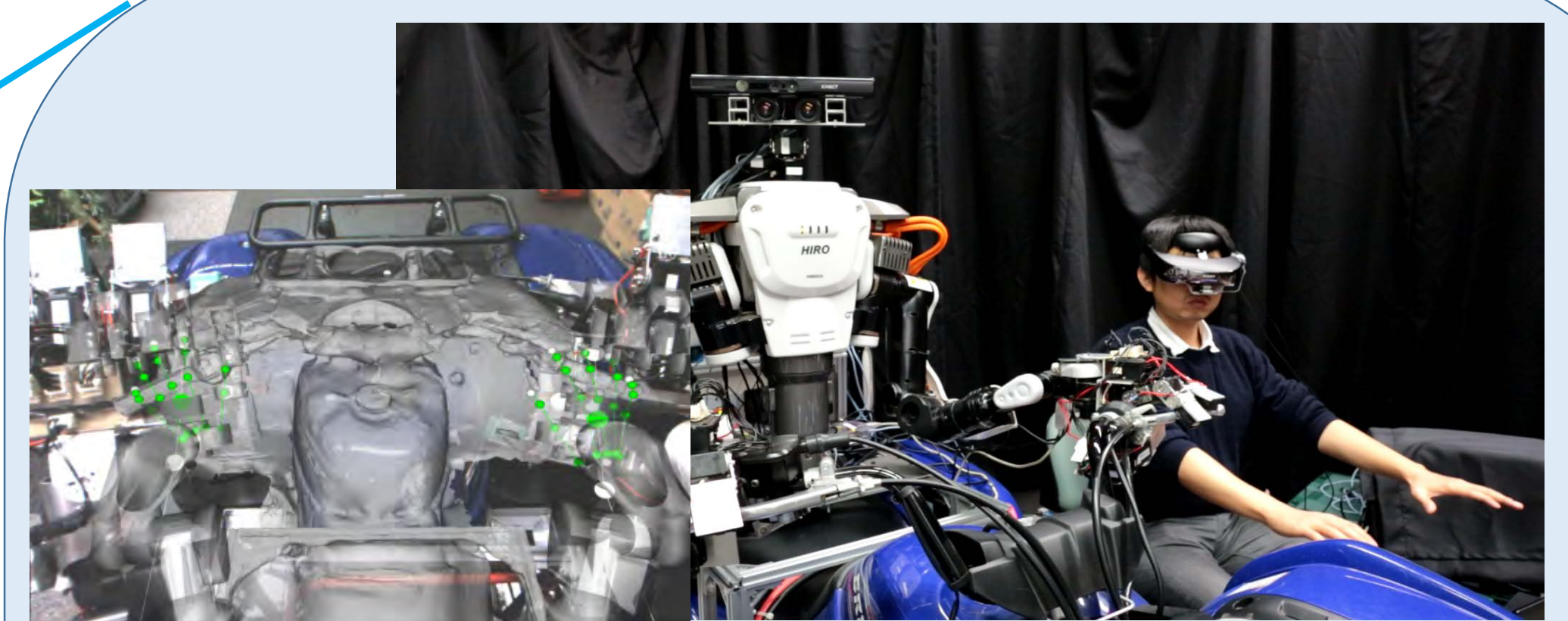
Take the initiative in future robot technology

In the near future, the fields where robots play key roles will expand from current factory automation to daily life support. Innovation that covers these areas requires various technology improvements in design, manufacturing and IoT in addition to conventional developments in sensor, actuator and automatic control. To meet these requirements, this research section will aim to take the initiative in research and development of the overall base technologies for robots in the future.

- ◆ Implementation of Multi-material Additive Manufacturing to Robotic Applications
- ◆ Precision and Thermal-assisted Forming of High-strength Parts for Transmitting High Torque
(Application of Constitutive Equations based on Non-Associated Flow Rules for the Plastic Deformation of Anisotropic Sheet Metals)
- ◆ Mixed reality and teleoperation for Quasi-autonomous Robots



Application of Stamping Simulation to the Digital Design of the Dies



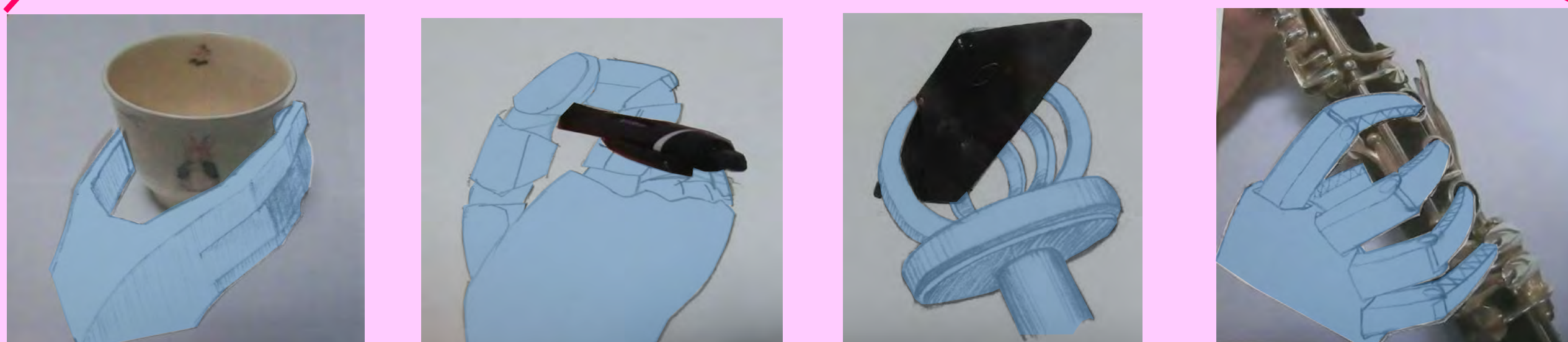
Humanoid robot remote teaching system



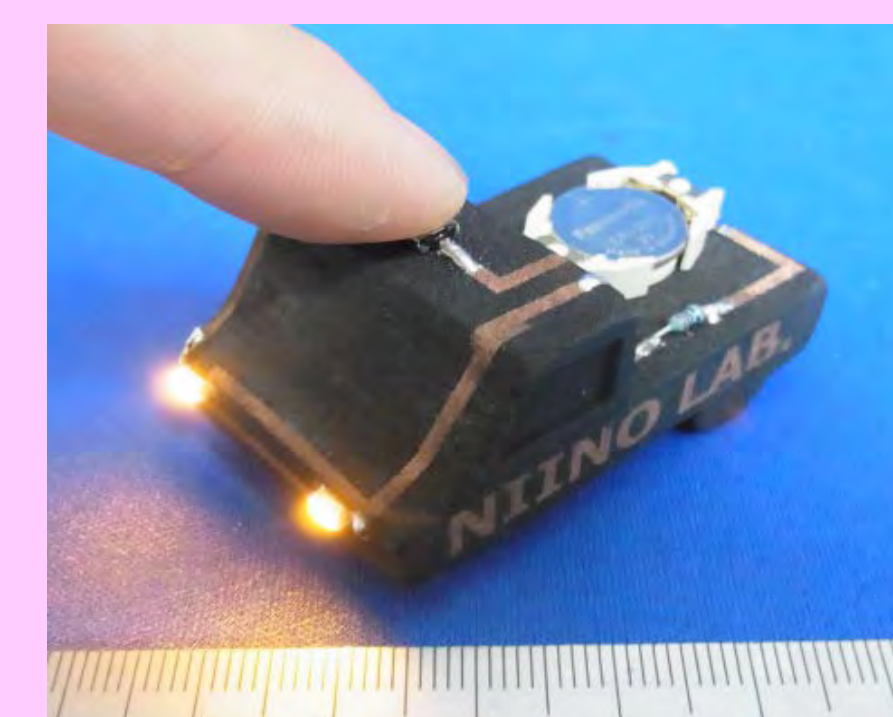
Humanoid Robot



Rover Type Laser Scanner



Application of Additive Manufacturing to actuator development



AM-MID fusion for resin-metal hybrid and fully three dimensional body