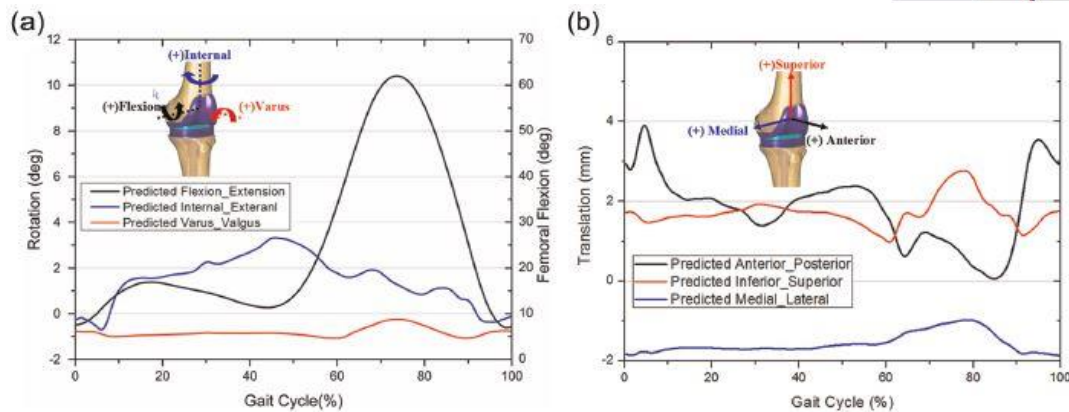
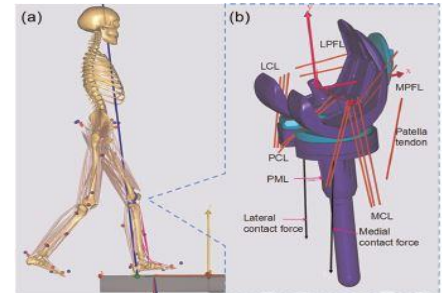


AnyBody is a musculoskeletal modeling and simulation program. It is a software solution designed for simulating the mechanics of the human body. The software models and analyses the musculoskeletal system during its interaction with the environment/device. It computes forces in individual muscles, elastic energy in tendons, moments, joint reactions etc. The AnyBody Modeling System offers a wide range of model customization and output results allowing it to be applied in almost any field that involves human/musculoskeletal interaction.

MEDICAL

- Orthopedics - Implant design/assessment and surgical planning

*“A dynamics model was developed in this study to predict contact forces, muscle activation, and joint internal motion simultaneously in the knee joint during normal gait by integrating a lower extremity musculoskeletal model implanted with a **Total Knee Replacement...**”*



- Rehabilitation - Countermeasure exercises evaluation and analysis

*“Knee bracing has been used to realize a variety of functional outcomes in both sport and rehabilitation application... In our study, tibiofemoral joint motion is captured using conventional high resolution motion capture techniques- from which reconstructed 3D marker trajectories are post-processed using the **AnyBody Modeling System (AMS)**. Then AMS can be used to estimate individual muscle forces, joint forces and moments, elastic energy in tendons, and antagonistic muscle action...”*



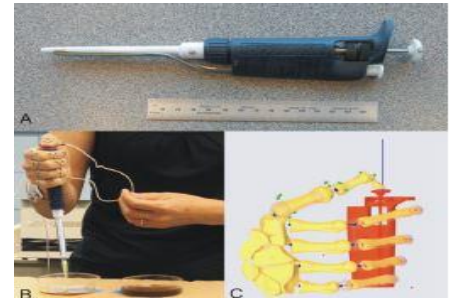
(a)



(b)

- Optimizing medical equipment design

*“Epidemiological studies indicate that the use of pipettes is strongly associated with musculoskeletal disorders (MSDs) in the hand and shoulder. Thus **AnyBody Modeling System** is use to model a hand to analyze the kinematics and loading in the joints of the thumb during pipetting...”*



SPORTS

- Strength training analysis - Muscle load/forces, muscle activity display
- Musculoskeletal simulator base on gait analysis (Motion analysis for badminton, swimming strokes, etc)

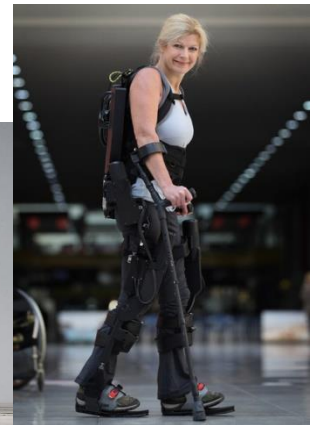


AUTOMOTIVE

- Ergonomics analysis , Design parameter optimization
- Seating, Ingress, Egress, Operability

EXOSKELETON

- Development of exoskeleton - Optimizing key parameters (Torque, power, kinematics, stiffness, etc.)
- Evaluation of exoskeleton - Effects on human body (Joints load, muscle activation - injured/non-active)



AEROSPACE AND DEFENCE

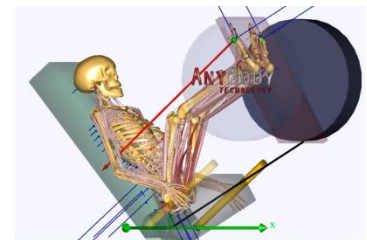
- Helicopter cockpit design, passenger spaces, microgravity environment

OCCUPATIONAL HEALTH

- Workplace design, equipment design

CONSUMER PRODUCTS

- Predicts the comfort and performance of products interacting with the human body



RESEARCH

- Biomechanics, sports sciences, biomedicine and health technology, kinesiology, etc.



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