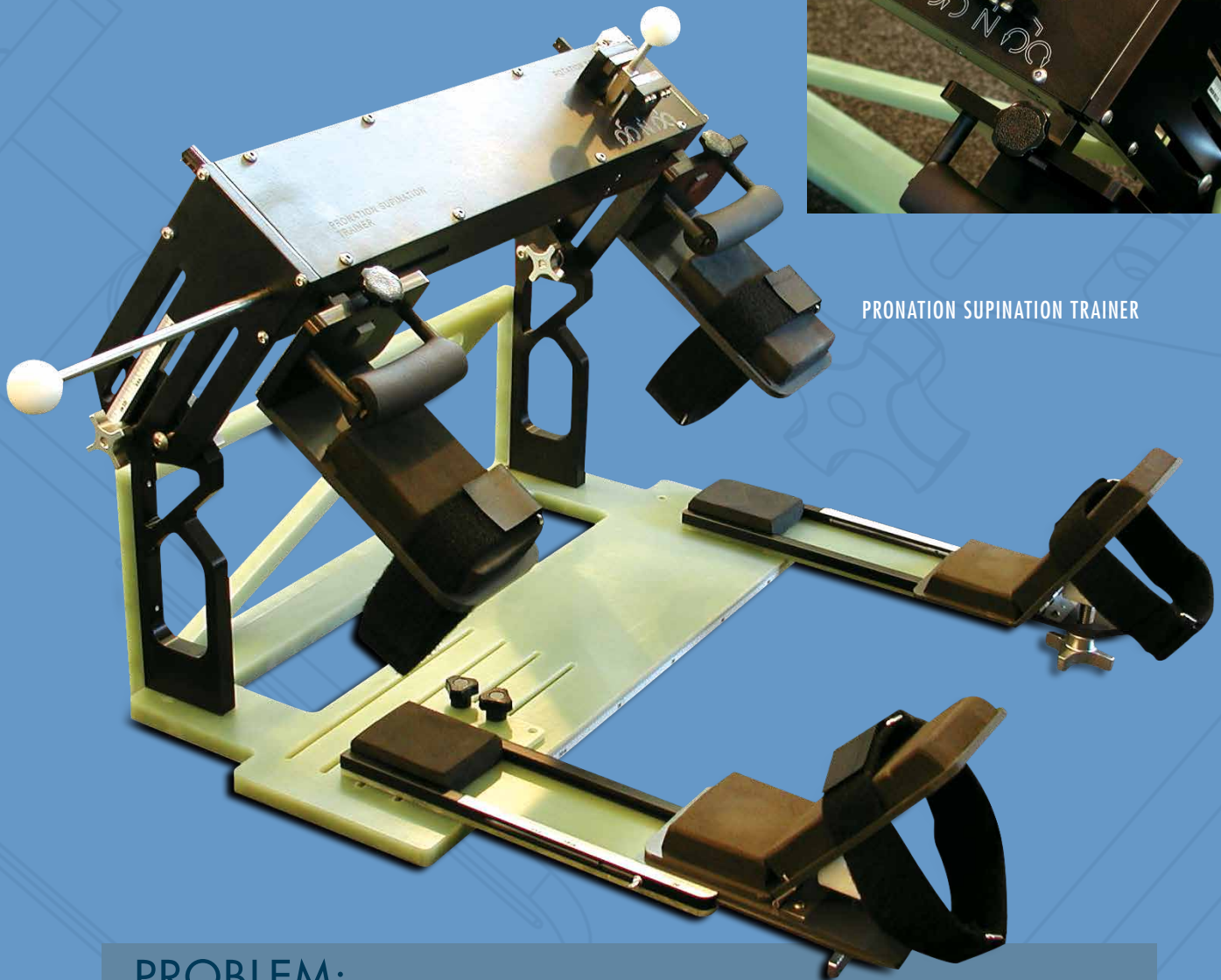




# MIRRORED MOTION STROKE REHABILITATION SYSTEM



PRONATION SUPINATION TRAINER



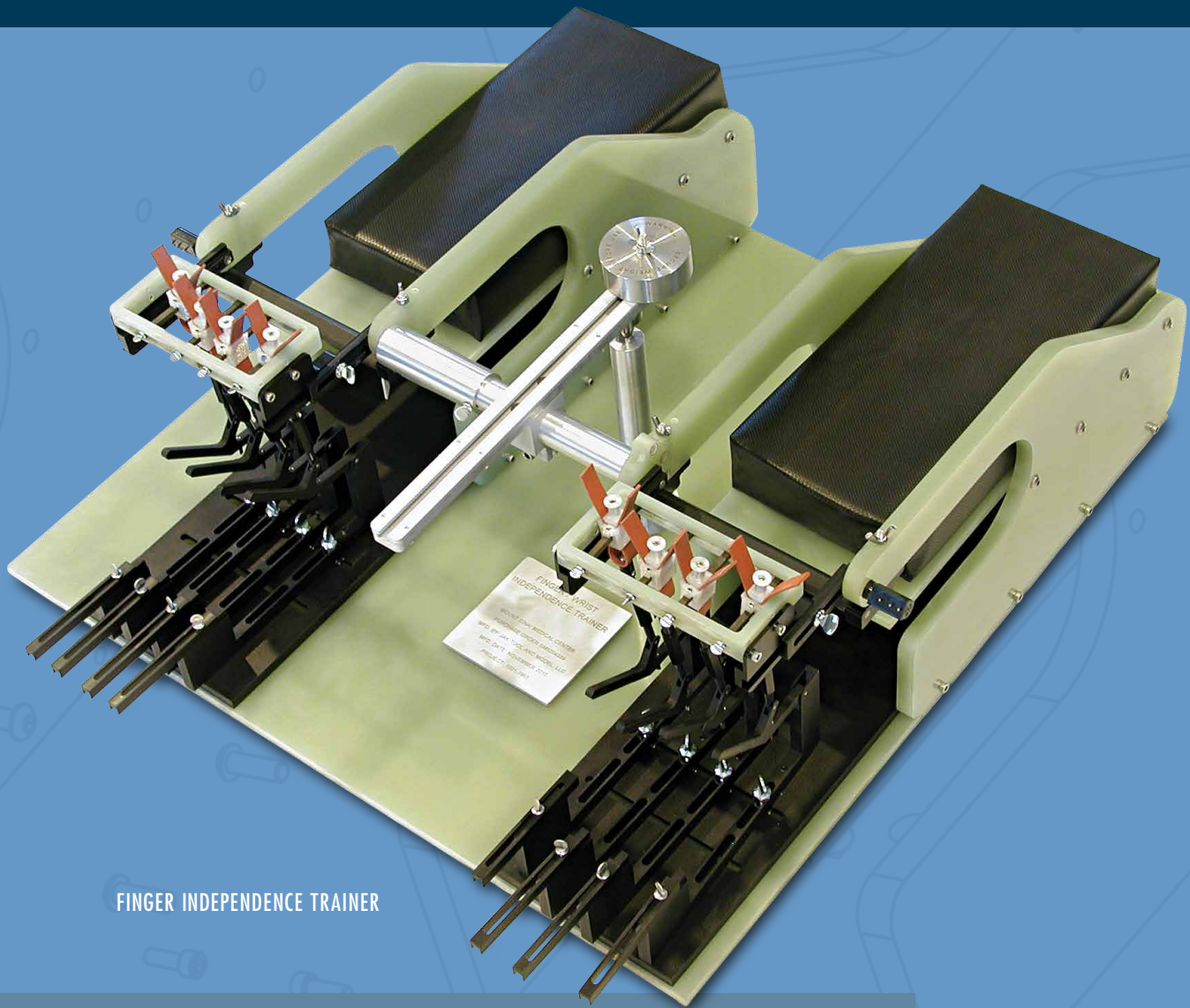
## PROBLEM:

A medical research team from a leading NYC hospital required a development partner to design and manufacture a series of stroke rehabilitation devices based on Bimanual Training, an innovative concept that helps retrain the brain and restore function to the affected side of the body following a stroke. Extra care needed to be taken to ensure these devices could accommodate patients comfortably and safely.



## SOLUTION:

Presented with conceptual models, JAKTOOL worked closely with the medical team to develop modular devices that could be easily transported and used for in-home care. JAKTOOL drew upon our extensive medical design experience to develop novel rehabilitation devices utilizing easy-to-use gearboxes that allowed for coupled and de-coupled movements. Sensors were installed on all critical movement axes to collect data and provide remote monitoring of patient progress. For patient comfort, the devices were designed with soft interface surfaces and easy ingress and egress.



FINGER INDEPENDENCE TRAINER

## CONCLUSION:

A pilot study validated that this rehabilitation system improved patients' range of motion and quality of life. These devices co-developed by JAKTOOL and the Mirrored Motion project team have set a new standard of care for stroke rehabilitation.