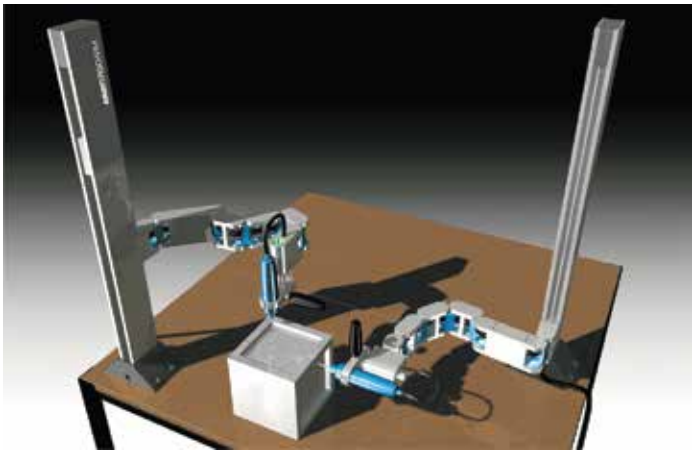
ROBOTICSDESIGN INC
Advancement Through Simplicity

Deploy ANATERGOARM™ at your factory

Articulated **N**imble **A**daptable **T**runk



ANATERGOARM™ **AEA-15**

Robotics Design & Michel Dallaire Design Industriel

Robotics Design Inc. is a specialized company in the conception and fabrication of flexible and hyper-redundant modular robots, as well as ergonomic arms for assembly and manipulation of heavy loads in limited work-spaces. These products are designed with the robotic **ANAT**™ technology (**A**rticulated **N**imble **A**daptable **T**runk), invented and patented by Robotics Design Inc.

Extensive market research was conducted before the conception of the **ANAT**ERGOARM™ by our man-machine interaction experts, who researched the problems of potential injuries due to repetitive movements, present in many manufacturing processes. Their expertise served to optimize the work-place safety and OEE (overall equipment effectiveness) of the **ANAT**ERGOARM™, while reducing the cost per unit.

ANATERGOARM™ mimics the natural bio-mechanical movement of the human body, simplifying users' work while making their work efficient and comfortable. This minimizes employee fatigue and injuries due to heavy object manipulation and reduces recoil which would be typically absorbed by the wrist of the employee.

The **ANAT**ERGOARM™ is a heavy-duty modular ergonomic arm constructed of anodized aluminum. It provides a weight-free, safe and comfortable way to position and use a wide variety of heavy pneumatic, electric and hydraulic tools.

At the touch of a button, users can effortlessly move the **ANAT**ERGOARM™ and any attached accessory vertically, while horizontal movements are easily guided by the wrist. The automatic brake equipped in the arm allows it to stop and stay at its current vertical position when the button is released. The base of the robot contains counterweights which balance the arm depending on the attached pay-load, which nullifies the effect of gravity and provides the arm with frictionless movement.

The **ANAT**ERGOARM™'s modular design and hyper redundant capability allows for exceptional obstacle avoidance abilities. This increases efficiency and productivity for workers doing both repetitive tasks and tasks in limited spaces. Also, the effort-free movement of the **ANAT**ERGOARM™ helps to prevent Repetitive Motion Injury (RMI) at the workplace, while minimizing worker fatigue and accidents.

The **ANAT**ERGOARM™'s length can be customized by adding or removing modules to or from the arm. An optional extension can be added to allow the user to extend the arm for applications in larger work envelopes. The arm can be mounted on a column or fixed overhead using our rugged support system, designed for long lasting performance.

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Advantages

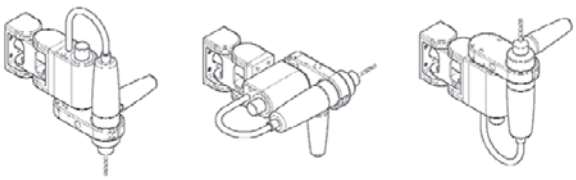
- Increases productivity, reduces operating costs and improves the quality of the production.
- Reduces work-place accidents and injuries.
- Fewer employee absences.
- Absorbs the recoil caused by manipulation of manual tools.
- Improves the operator's comfort by providing an ergonomic working procedure and reducing RMI and carpal tunnel syndrome.

Key Features

- Reconfigurable modular design which can be easily adjusted to perform other specific applications.
- Robust and flexible design which supports pneumatic and electric accessories from 15 to 150kg depending on the model.
- Adjustable arm length: users can add or remove modules depending on their needs.
- Optimized work-space coverage: performs a full rotation of 360 degrees without turning the base, reducing space needed to perform.
- Automatic brake system: object and arm position retention assured even if air pressure is removed.
- Arm remains parallel to the horizontal plane.
- Vertical positioning remains constant after button is released.
- Connectors, cables and wiring contained inside the structure.
- Optional flexible tool holder, adaptable to wide range of standard tooling.
- Built with corrosion free anodized aluminum.
- Support numerous tools such as welders, dispensing systems, hot melt applicators and most pneumatic and electric tools.

Applications

- Tapping, deburring nut running
- Burnishing & sizing
- Inserting helicoids, Chamfering, Reaming, Countersinking
- Drilling, Screwing, Grinding, Torch cutting
- Handling, assembly and repair of heavy objects in limited work spaces.



The tools holder is easily deployed in 3 positions (90 degrees)

ANATERGOARM™ AEA-15

		Number of Modules	Anodized Aluminium
Types		**EA-H05020**	**20 Kg**
		EA-H05050	50 Kg
		EA-H05075	75 Kg
		EA-H05100	100 Kg
		EA-H05150	150 Kg
Characteristics		Dimension	**1200 x 12.5 x 62.5 mm**
		Horizontal Length	1200 mm
		Vertical Length	1100 mm
		Rotation	360°
		Weight	35 kg
		Tool Holder Rotation	0° ± 90° ±180°
Breaks			24 V DC
Consumption			0.5 A
Construct			Anodized Aluminium