PROCESS AND ARCHITECTURE OF ROBOTIC SYSTEM TO MIMIC ANIMAL BEHAVIOR IN THE NATURAL ENVIRONMENT

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Description

In prior art, very few biomimetic robots exist. In these robots, the actuation and sensing is performed by conventional technologies such as motors, strain gauges, etc. Moreover, they require extensive interfaces between a processor, sensor and an actuator. This novel robotic system (bioengineered robot) mimics the behavior of animals in the natural environment. **Such systems comprise novel neural circuitry, artificial muscles and neurosensors for this unique application.**

Value Proposition

The robotic system:

- Is a low cost, intelligent artificial machine
- Is based on reverse engineering of animal model systems
- Is capable of working on land or underwater
- Replaces the use of costly robot motors
- Mimics the natural animal behavior
- Is user friendly, autonomous and inexpensive
- Comprises the use of a processor independent architecture (using serial communications to communicate between the processor and the interface)
- Would be commercially useful for the following applications:
    - o Security systems
    - o Education – modular robots
    - o Mine detection
    - o House cleaning
    - o Robotic pets
    - o Entertainment
    - o Aides for the elderly/disabled
    - o Smart detection systems
    - o Shallow water mine countermeasures
    - o Undersea and land remote sensing

Intellectual Property Status

Issued Utility Patent 7,409,298

License Status

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