

FESTO BIONIC KANGROO



Keywords

Kinematics,Pneumatic,Electrics
Gesture Control using armband

Input

Armband movement
Motion Tracking

Output

Movement and forward
Jumping

Technology

Sensors
Motors
Storage battery
Valve
Integrated Compressor

Description

With the Bionic Kangaroo
Festo has technologically produced a
Unique way a Kangaroo moves.
Like its natural model it can
Recover energy when jumping,
Store it and efficiently use it for next jump
It complete this process in six phases.
The person with a arm band controls its
movement



link

http://www.festo.com/cms/en_corp/13704.htm



Festo Bionic Kangaroo Cycle

Take-off phase



- 1 Pretensioning the elastic spring element

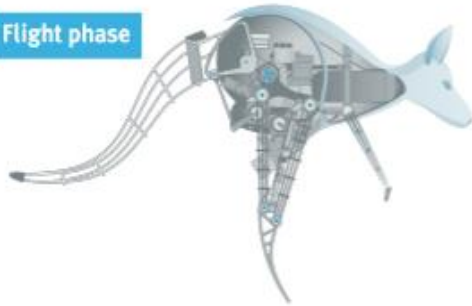


- 2 Shifting the centre of gravity forwards

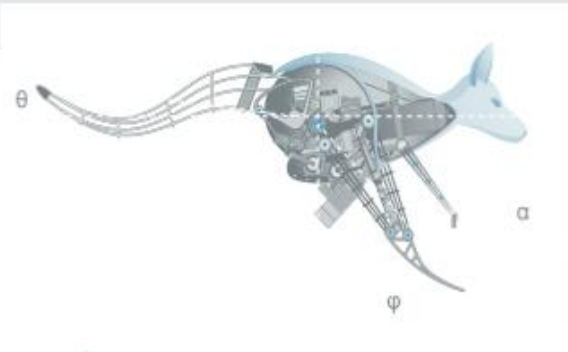


- 3 Switching the valves on for take-off

Flight phase



- 4 Evaluation of the sensor values by the control system



- 5 Pulling the legs forward and lifting the tail

Landing phase



- 6 Landing and deflecting for the next jump

Festo Bionic Kangaroo Structure

