KOALA II

Motorola 68331 at 22MHz
1MB RAM
1MB ROM

2 DC brushed servo motors with integrated incremental encoders
(roughly 19 pulses per mm of robot motion)
High precision differential drive odometry

Maximum Slope Traversal 43 degrees
Clearance 30mm
Maximum Payload 3kg

Sensors :
• 16 Infra-red proximity and ambient light sensors
• 4 optional triangulation longer-range IR sensors
• Up to 6 optional ultrasonic sonar sensors

User Available I/O :
• 12 digital inputs [5..12V]
• 4 CMOS / TTL digital outputs
• 8 power (open collector) digital outputs [12V 250mA/output]
• 6 analog inputs (10 bit A/D converter, 4.096v range)

• Size Length: 32 cm x Width: 32 cm x Height: 20 cm
• Rechargeable and swapable NiMH Battery with ambient temperature measurement
(Approx 6 hours moving continuously without payload.)
• Motor torque and global power consumption
• LabVIEW® , MATLAB®, SysQuake® using RS232 Freeware.
Any other software capable of RS232 communication

Many extensions available
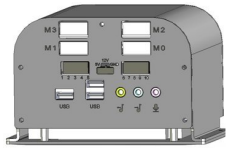
PICO ITX

This computer extension for Koala will give you the opportunity to make advanced embedded applications. Thanks to its powerful processor, the Koa-PicoITX is perfect for image processing, mapping and odometry calculation. The Koa-PicoITX was developed to work with a Koala, but can be used as a standalone mini-computer in your own application. VIA 1GHz / 1GB RAM / HD 80 GB / WiFi / GigaLAN / VGA port.

Pantilt camera

This pan-tilt camera is a powerful solution for robotic vision experiments using a framegrabber connected either to a KoreBot or to a PICO ITX, or for off-board processing using a tether or a wireless video transmitter. One or two cameras can be controlled directly from the Koala using KoreMotor, a dedicated motion control processor mounted under the Koala's hood or standalone.
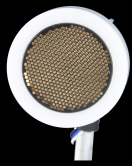
Ultrasonic sensor

The sonar extension for Koala greatly expands the obstacle detection capability of the Koala. The Koala can use a maximum of 6 ultrasonic sonar transducers. These sensors can detect obstacles over a wide range from 15cm to 3m, and complement nicely the Koala's 16 built-in infrared proximity sensors, which have a range from 5cm to 20cm. In addition, the independent sonar modules can be oriented in any direction and mounted in any desired configuration, or even used for other applications!
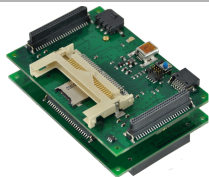
KorBot II and all Korebot extensions

The Koala can use all the Korebot extensions, upgrading the capability of the Koala. The koreBot II can be use to add a Linux ARM system on the Koala. The KoreIO board can upgrade the IO capability of the Koala and the KoreMotor board allows you to add a custum motor application on the Koala. Please refer you to our Korebot line product flyer for more informations.

Battery pack

Already included in the autonomous Koala package, the intelligent battery pack on Koala has several very interesting features:
• Can be easily plugged in and out of the Koala
• Can be recharged externally or while inside the robot
• Has an internal memory to monitor the battery's capacity, charge status, life cycles etc.
• Capacity of 4000 mAh