



Robot KHEPERA III

MOBILE ROBOTICS

Khepera III

dsPic 30F5011 processor at 60MHz
4KB RAM on dsPIC
66KB Flash on dsPIC

2DC motors with encoders (22 pulses per mm of robot motion) .Max speed : 0.5 m/s.
High precision differential drive odometry

Sensors :
8 Infra-red proximity and ambient light sensors with up to 30cm range.
2 Infra-red ground proximity sensors for line following applications.
5 Ultrasonic sensors with range 20cm to 4 meters.

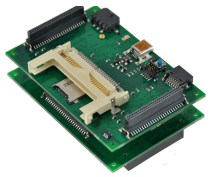
Always ON ! 15s to swap battery.
One battery of 1400mAh comes with the Khepera III.

Native Bluetooth and serial port 115Kbps.

LabVIEW®, MATLAB®, SysQuake® using RS232 Freeware. Any other software capable of RS232 communication.

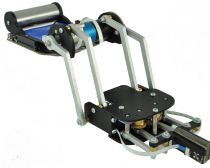


Many extensions available



Korebot II CPU extension board

The KoreBot II is a powerful embedded platform based on the gumstix Verdex PRO with a XScale processor. KoreBot II extends the same type of functionality and performance found in the latest generation consumer PDA devices to the industrial market. Ready-to-run, extremely compact, but flexible for expansion and customization for customer application needs. The KoreBot II comes complete with all the hardware and software needed to start development including its Linux operating system. With a Korebot II on your Khepera, you can now use all the powerful Korebot II extensions like the Kore IO board providing all the IO needed to interact with your own electronics.



K3G - Khepera III Gripper

The K3G allow you to interact with objects in 2 degrees of freedom, optical barrier and resistor measurement of the picked object. The K3G comes with an integrated battery LiPo pack to save the Khepera III autonomy. (Korebot II required)



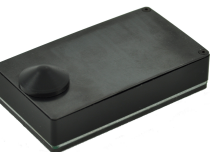
KorUSBCam

The korUSBCam adds a webcam on the Khepera III allowing you to process images directly on board (Korebot II required).



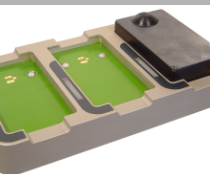
KorWirelessCam

With this KorWLCam, you can place a 640 x 480 pixels wireless camera on the Khepera III, this allows you to make easy remoted video processing thru a Wifi 802.11g network. (Korebot II required).



Battery pack

Battery pack are available separately to allow you non-stop experimentation. This intelligent battery has an embedded EEPROM that can manage battery voltage, remaining capacity, current measurement and average measurement. The capacity of this pack is 1400 mAh, allowing you about 4 hours on a Khepera III.



External Charger

In addition the external battery charger allows you to charge up to 3 battery packs simultaneously. Fully automatic, it monitors the charge status, updates intelligent battery pack information and gives a detailed feedback to users using a bar graph display. The External Charger is also able to quickly check and display the battery pack charge level.