## ROBOTICS

## Robotic kits perfect for every experimenter.

Digilent's line of Robotic Development Kits provide the perfect starting point for those new to robotics, but have the power to be used for advanced designs and applications as well. Each kit pairs one of our powerful chipKIT<sup>™</sup> microcontroller development boards with a rugged steel platform and all the motors, wheels, sensors and development software needed to build a complete robot. The kits are each geared towards a different specialty, and each has downloadable assembly instructions and a demo project that make it easy to get your robot up and running quickly.

The included chipKIT<sup>™</sup> development boards feature Microchip<sup>®</sup> PIC32<sup>™</sup> microcontrollers. The PIC32 provides a 32-bit MIPS processor core operating at 80Mhz, 128-512K bytes of program FLASH and 16-32K bytes of RAM memory and numerous peripheral devices, including a USB controller, timer/counters, serial interface controllers, A/D converter and more. The boards have numerous I/O connectors and power supply options, including USB power. The chipKIT Pro MX4 (used for the MRKs) also has a built-in programming and debug circuit compatible with the included Microchip MPLAB development software.





The Digilent Motor Robot Kit (MRK) provides the perfect starting point for those new to robotics, but has the power to be used for advanced designs and applications as well. The MRK pairs our powerful chipKIT<sup>™</sup> Pro MX4 microcontroller development board with a rugged steel platform and all the motors, wheels, and other parts needed to build a complete robot. Using your MRK's powerful chipKIT Pro MX4, you'll be able to add all sorts of functionality to your robot. Add some of our extensive line of peripheral modules (Pmods<sup>™</sup>) and you can design almost anything!

The MRK+Line adds 4 IROS sensors and a PmodLS1 light sensor module, so you can create line-follower projects.

In either case, your chipKIT Pro MX4 can be programmed with either Microchip MPLAB<sup>®</sup> IDE or chipKIT<sup>™</sup> MPIDE. Microchip MPLAB IDE can be downloaded for free from microchip.com. chipKIT MPIDE can be downloaded for free from http://chipkit.net/started/.

- Powered by the chipKIT<sup>™</sup>Pro MX4
- Includes everything needed to build a fully-functioning robot in no time
- Driven by two 1:19 ratio motor/gearboxes
- Rugged metal platform & motor mount with holes on 1/2" centers
- Rugged plastic wheels and drag button

## **MRK+Line adds:**

 4 IROS sensors & a PmodLS1 light sensor module for line-following capability



The Digilent Servo Robot Kit (SRK) provides the perfect starting point for those new to robotics, but has the power to be used for advanced designs and applications as well. The SRK pairs our powerful chipKIT<sup>™</sup> MX3 microcontroller development board with a rugged steel platform and all the motors, wheels, and other parts needed to build a complete robot. Using your SRK's powerful chipKIT<sup>™</sup> MX3, you'll be able to add all sorts of functionality to your robot. Add some of our extensive line of peripheral modules (Pmods<sup>™</sup>) and you can design almost anything!



The SRK+Line adds 4 IROS sensors and a PmodLS1 light sensor module, so you can create line-follower projects.

In either case, your chipKIT<sup>™</sup> MX3 can be programmed with either Microchip MPLAB<sup>®</sup> IDE or chipKIT<sup>™</sup> MPIDE. Microchip MPLAB IDE can be downloaded for free from microchip.com. chipKIT MPIDE can be downloaded for free from http://chipkit.net/started/.

- Powered by the chipKIT<sup>™</sup> MX3
- Includes everything needed to build a fully-functioning robot in no time
- Driven by two GWS servos w/ continuous rotation
- Rugged metal platform & motor mount with holes on 1/2" centers
- Rugged plastic wheels and drag button

## SRK+Line adds:

 4 IROS sensors & a PmodLS1 light sensor module for line-following capability



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