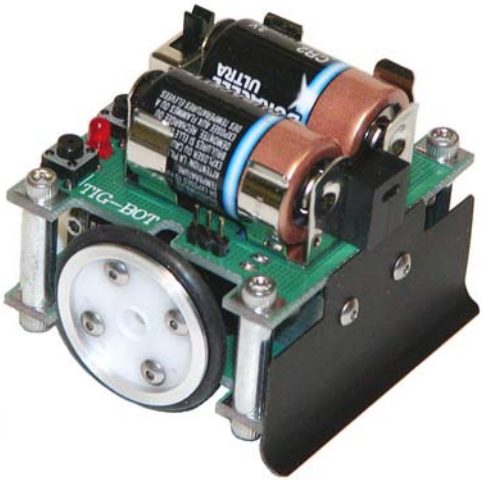
Tig-Bot™

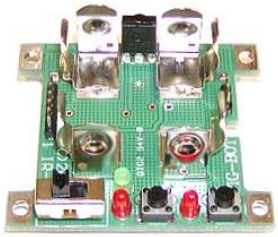
(Pronounced "Tig" like "Fig")

Micro-Sumo Class Robot

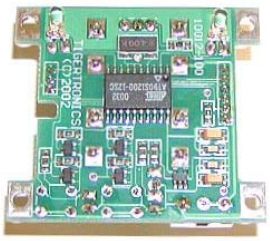


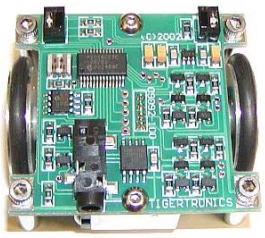
- ☑ First Production Micro-Sumo!
- ☑ Parallax Basic Stamp II Processor
- ☑ Dual H-Bridge Motor Controller
- ☑ Independent IR Tracking System
- ☑ Three (3) Embedded Processors
- ☑ Precision CNC Machined Parts
- ☑ "Undersized" for Micro Class!

Tigerbotics is pleased to introduce Tig-Bot™, the most advanced Micro Robot platform available. Although it was designed to be able to compete as a Micro-Sumo, it is much more! We have made enormous efforts to make it an extraordinarily versatile platform for any Micro Robotics application. The main processor board is based on the Parallax Basic Stamp II making it very "friendly" to program and yet very powerful. The Tig-Bot™ features two other processors in addition to the Basic Stamp. One is an Atmel AtTiny which is used for I/O processing on the CPU board and the other is a more powerful Atmel AT90S1200 which is used to implement the IR Tracking System. The upper board on the robot contains the power supply, user controls, and IR Tracking Subsystem. The batteries are 750mah CR2 Lithium cells for long run time. A power switch and power LED are provided in addition to two pushbutton switches and two LED's for controlling the robot. The IR Tracking Subsystem is "totally" independent of the CPU board. A header is provided for "in circuit" programming and seven (7) I/O pins are brought out to headers for user expansion. Two modulated IR LED's and a photo detector are used to scan the target. The Tig-Bot™ is "undersized" for Micro-Sumo Class so a third pcb can even be added on top! The lower board contains the Stamp II based controller, IR Line Sensors, and dual H-Bridge motor controllers. The capability of the Stamp is greatly increased in the Tig-Bot™ by the motor and IR subsystems which relieve it of almost all of the "housekeeping" functions. This leaves the majority of the Stamps capability available for user expansion. Five of the Stamps extra I/O pins are brought out to a header for connection to other add-on devices. The CPU board also serves as a mounting platform for the two Micro Servo based gearmotors. A unique "3-Wire" interface connects Tig-Bot™ to a PC for programming (normally the Basic Stamp requires 4 wires!). You will find many other innovations in the robots design. For example: Notice that there are "no wires" connecting the Tracker board to the CPU Board. The "only" wires in the robot connect the motors!



IR Tracking Board





Main Processor Board

Look us up on the web for more information and availability:
www.wildrobots.com www.micro-sumo.com www.mini-sumo.com

Tigerbotics 400 Daily Lane P.O. Box 5210 Grants Pass, OR 97527