

# Classroom Robotics Kit

## Teach Coding, Programming, and Robotics

Ideal for hands-on learning in the classroom and an excellent tool for preparing students for robotics competitions such as FTC, FRC, WorldSkills, WRO & RoboCup.

### Why Choose Studica Robotics?

Studica Robotics is an affordable build platform that is sturdy, robust, and compatible with other existing building systems. The VMX Robotics Controller is unique as it allows for programming in C++, Java, Python, LabVIEW, and ROS. We offer a wide variety of hardware, electronics, motion, and structural components. The structural components are all designed to work easily together so there is little need for a machine shop. This makes it easy to modify your robot design and allows for the reuse of components for future projects.

This versatile Classroom Robotics Kit provides variety of parts that your students can use to create a robot. These robots can be used for competitions like the FIRST Tech Challenge. An excellent solution getting students up to speed and preparing for FTC.

### Here's What's Included:

**VMX Robotics Controller** - This controller can be programmed in C++, Java, Python, and ROS. It can be used as a Robot Control System or Vision/Motion processor that supports C++ and Java. It integrates Gigabit Ethernet, USB3 ports, navX-IMU, and built-in Wifi and Bluetooth. It offers a multi-core Linux computing platform that offers lots of USB IO for expansion. It also has a CAN bus for high-speed, real-time communication between devices.

**Titan Quad Motor Controller** - This is a powerful, 4-channel CAN-based motor controller that includes a built-in fuse box (can be used for DC motors up to 20A).

**Structure Components** - This kit includes a variety of U-Channel and Low Profile U-Channel components. You'll find a variety of beams, mounts, flats, and brackets.

**Motion Components** - Including pulleys, servos, wheels, slides, bushings, rack and pinion set, and bearings.



You'll also get a storage bin, an assortment of screws and nuts, tools, a 12V 3000 mAh NiMH battery pack, and a charger. Servos and high-resolution encoders are also included.

Training materials, software libraries, and sample robot designs. 3D CAD files of all our robot parts which can be used with any 3D design software are available.

**Build Better Robots®**

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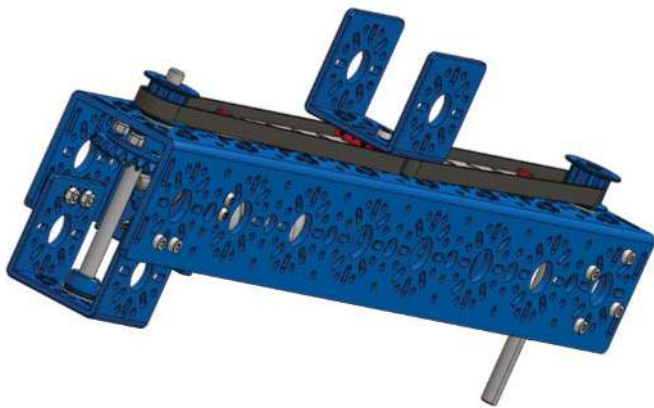
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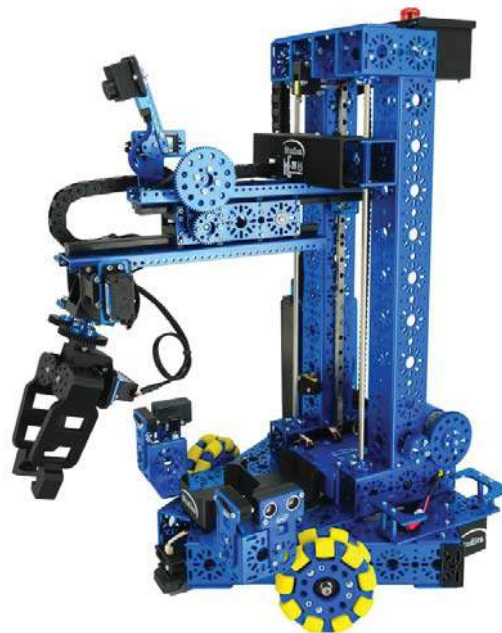
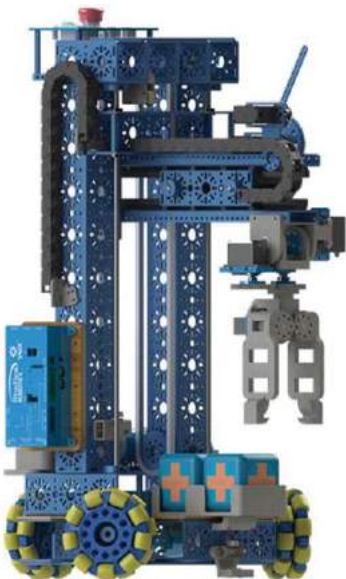
## Studica Robotics Offers:

- Structure Components:  
Find U-channel components, axles, brackets, hinges, spacers, and more.
- Motion Components:  
Shop wheels, servo motors, pulleys, slide rails, sprockets, belts, and more.
- Electronics:  
We have robotic sensors, robot controllers, power switches, cables & wiring, FPV, remote devices, and more.
- Hardware, game elements, bundles, packs, training, and robotics kits.

## Examples of Assemblies:



## Robot Build Ideas:



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