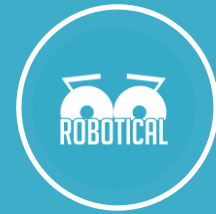


MARTY

THE ROBOT V2



Marty the Robot Brings STEM to Life!

Check Out the New & Improved Version 2 Marty!

<h3>Programming Languages</h3>	<ul style="list-style-type: none">■ Scratch (block-based coding).■ Python. coming soon■ JavaScript. coming soon■ ROS (Robotic Operating System) / C++. coming soon■ Open API for extendability. coming soon■ Screen Free Coding
<h3>Software</h3>	<ul style="list-style-type: none">■ Scratch programming platform for Marty works in your browser or on iPads and Android tablets.■ Control & Program Marty via Bluetooth, and follow an ever-growing set of curriculum-linked (but fun!) activities and challenges suitable for beginners and medium coders.■ Advanced programmers can get stuck in with our ROS interface and advanced user tutorials. Coming soon
<h3>Motors</h3>	<ul style="list-style-type: none">■ 9 metal geared high torque smart servo motors.■ Every motor has built in force sensing and position feedback.■ Expandable motor bus makes it easy to add more!
<h3>Mechanics & Movement</h3>	<ul style="list-style-type: none">■ A real walking robot! Can balance on one leg, walk, and sidestep.■ Unique 3-motor and spring walking mechanism means Marty can walk, turn, dance, kick a ball and more!■ Can walk with step times from half a second to super-slo-mo.■ Design your own Marty moves from while you program Marty. <ul style="list-style-type: none">■ Bluetooth.■ I2C.■ USB.■ Serial.■ WiFi. coming soon

<h2>Battery</h2>	<ul style="list-style-type: none"> ■ 2,600 mAh Li-Ion rechargeable battery with inbuilt charger. ■ USB-C charging cable included. ■ Marty will run for 2-3 hours on a charge.
<h2>Electronics</h2>	<ul style="list-style-type: none"> ■ Robotical's Robot Interface Controller (R.I.C.), with Bluetooth, WiFi, and USB-C. ■ Can control and interface with up to 100 motors, sensors, LED outputs and more via expandable smart bus. ■ 9 general purpose expansion ports (motors, sensors and outputs) and external connector for Raspberry Pi or other SBCs.
<h2>Sound</h2>	<ul style="list-style-type: none"> ■ Mini Speaker on board. ■ Can learn short phrases and play short songs.
<h2>Sensors</h2>	<p>Built-in:</p> <ul style="list-style-type: none"> • 3 axis accelerometer & tilt sensor. • Motor current sensing on every motor, detects motor force and interactions. • Motor position sensing on every motor. • Fall detection. • IR proximity & beacon sensor. <p>Optional:</p> <ul style="list-style-type: none"> • Distance sensor(s). • Color & line sensor(s). • Noise sensor(s). • Light sensor. • Compass for direction sensing. • Temperature & environment sensing. Coming soon <p>With Raspberry Pi:</p> <ul style="list-style-type: none"> • Camera for computer vision (object and face detection). • Microphone.
<h2>Assembly</h2>	<ul style="list-style-type: none"> ■ Available as kit or assembled. ■ Build takes around 1 hour, suitable for ages from 10+. - Only requires a screwdriver, which is included! ■ Using metal nuts rather than screws into plastic, Marty is designed to be taken apart and reassembled many times.
<h2>Customizability</h2>	<p>Sticker sets included with every Marty for instant customization.</p> <ul style="list-style-type: none"> ■ Add-ons and extensions let you customize further. ■ All parts are 3D printable, and the CAD designs are available to base your designs on.

Expandability	<ul style="list-style-type: none"> ■ Supports and holds an optional Raspberry Pi – Zero, 2 or 3. <ul style="list-style-type: none"> - With a Raspberry Pi you can run ROS and use a camera and/or microphone. ■ 8 general purpose expansion ports for motors, sensors, flashy lights, etc. ■ Modular I2C based bus means you can add as many expansions as you like! ■ 1 extension port for connection to a alternative control board. ■ ROS (<i>Robot Operating System</i>) for real world robotics experience. ■ Various add-ons and upgrades available. <ul style="list-style-type: none"> - Disco Marty will be available straight away! A Marty covered in programmable color-changing LEDs.
Plastic components	<ul style="list-style-type: none"> ■ 56 tough injection molded plastic parts. ■ Marty is the most robust walking robot around.
Multiple robots?	<ul style="list-style-type: none"> ■ Get as many Marty(s) as you want on the same network. ■ Good for classes, football. ■ Control multiple Marty(s) from one computer for synchronized Dances.
Compatibility	<ul style="list-style-type: none"> ■ Program from PC, Android and iOS devices. ■ Expandable with Raspberry Pi. ■ Arduino. ■ BBC MicroBit compatibility coming soon.
Support	<ul style="list-style-type: none"> ■ Extensive support from dedicated team and through the “Marty-verse” community. ■ Online resources for fun, learning and support at all stages, including video guides, tutorials, coding materials and extensive documentation).

Contact PowerUpEDU to Learn More!

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