

Building Instructions for the LEGO WeDo Set: A Step-by-Step Guide with Programming Code

The LEGO WeDo set offers a delightful and engaging way to introduce children to the world of robotics and coding. With its combination of colorful LEGO bricks and intuitive programming software, the set empowers young learners to create, build, and program their own interactive models. In this comprehensive building instruction, we will take you through the detailed steps of assembling the LEGO WeDo set, including the programming code necessary to bring your creations to life.

Unboxing and First Steps

Upon unboxing the LEGO WeDo set, you will be greeted by a plethora of colorful bricks, motors, sensors, and a Smart Hub, which serves as the central control unit. Start by sorting the bricks into their respective categories, making the building process more organized. The instruction booklet provides clear and easy-to-follow steps, ensuring that even first-time builders can navigate the assembly process with ease.



Pterodactyl on the rope: Bulding instruction for the Lego Wedo 2.0 set + program code

★★★★★ 5 out of 5

Language : English

File size : 7019 KB

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Building the Smart Hub

At the heart of the WeDo set lies the Smart Hub, the brain of your interactive creations. Follow the instructions meticulously to connect the Power Function motor, the Tilt Sensor, and the Motion Sensor to the Smart Hub. These components will enable your models to engage with their environment, react to movement, and perform automated actions.

Assembling the Motorized Giraffe

Begin by constructing the giraffe's body using the provided beams, connectors, and bricks. Attach the Power Function motor to the giraffe's neck, allowing it to move its head up and down. Connect the Tilt Sensor to the giraffe's body, enabling it to detect tilt and adjust its movements accordingly. Finally, add the finishing touches with the giraffe's head, ears, and eyes, giving it a charming and lifelike appearance.

Programming the Giraffe's Movements

Using the dedicated WeDo programming software, you can bring your giraffe to life. Start by creating a new project and selecting the appropriate sensor and motor blocks for the giraffe's movements. Connect the Tilt Sensor to the "if tilt" block, specifying the desired angle for the giraffe to respond to. Code the Power Function motor to move the giraffe's head up or down based on the Tilt Sensor's input. Test your code and observe the giraffe's graceful movements.

Building the Spinning Top

Next, embark on the assembly of the vibrant spinning top. Follow the step-by-step instructions to connect the bricks, beams, and gears, creating a sturdy and symmetrical structure. Attach the Motion Sensor to the top of the

spinning top, allowing it to detect movement and react accordingly. Add colorful decorations and spin the top to watch its mesmerizing motion.

Programming the Spinning Top's Rotation

Using the WeDo software, code the Motion Sensor to trigger specific actions when the spinning top moves. Connect the Motion Sensor to the "if motion" block, specifying the type of motion you wish to detect. Program the Smart Hub to respond to the Motion Sensor's input by activating the Power Function motor, which will rotate the spinning top at different speeds. Experiment with different code sequences to control the spinning top's rotation and create unique patterns.

Building the Tilt-Controlled Car

Prepare yourself for an exhilarating building experience as you assemble the tilt-controlled car. Follow the instructions closely to construct the chassis, wheels, and body, ensuring a smooth and stable ride. Connect the Power Function motor to the car's wheels, giving it the power to move forward and backward. Attach the Tilt Sensor to the car's body, enabling it to detect tilt and steer in response.

Programming the Car's Tilting Motion

With the car assembled, it's time to code its tilting motion. In the WeDo software, connect the Tilt Sensor to the "if tilt" block, specifying the angle at which the car should respond. Code the Power Function motor to steer the car left or right based on the Tilt Sensor's input. Test your program and witness the car's ability to navigate around obstacles and follow your commands.

Additional Building and Programming Ideas

The LEGO WeDo set offers endless possibilities for creativity and exploration. Encourage your child to experiment with different building designs and programming sequences. Build a motorized windmill that generates power or a dancing robot that moves to music. The only limit is their imagination!

The LEGO WeDo set is an exceptional tool for nurturing young learners' interest in STEM fields. Through hands-on building and engaging programming challenges, the set fosters their problem-solving skills, critical thinking, and computational thinking. With the detailed instructions and programming code provided in this guide, your child will embark on an extraordinary journey of creativity and innovation, unlocking the limitless potential of the LEGO WeDo set.



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