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The Robot Program Episode 003: Getting JD to Move

This lesson will demonstrate how to connect to and move the **Revolution JD** robot. Follow along with **The Robot Program Episode 003: Getting JD to Move**. At the end of this lesson, the reader will have learned how to connect to the robot using Wi-Fi, how to create and save a servo profile, and how to use the **Auto Position** and **Soundboard** controls to execute movements and routines.
View the video episode here: https://www.ez-robot.com/Tutorials/Lesson/32

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Professor E's Overview

This lesson demonstrates how to connect to **JD** for the first time.
Remember to start with a fully charged robot. Load the **Example Project** for **JD** and connect to the robot using Wi-Fi. Sometimes the servos of the robot will need to be adjusted to correct any minor hardware displacement. The **EZ-Builder** software can be used to create and save a servo profile. The arms and legs of the robot should be aligned, and there should not be any grinding or vibrating sounds.
Once **JD** is calibrated and connected, use the **Auto Position** and **Soundboard** controls to execute pre-built actions and routines. Remember to disconnect, power off, and charge the robot when finished.

Step 1

Always start with a fully charged robot. Disconnect from the battery charger.

Step 2

Open **EZ-Builder**. Select **Example Projects** and load the **JD** project. See how to download the software and build **JD** in **Episode 002**.

Step 3

The servos may need calibration to compensate for any slight hardware discrepancies. Select **Create Servo Profile** and power on the robot.

Step 4

Select the **EZ-B v4** Wi-Fi connection.

Step 5

Select Connect to **EZ-B**. The robot should move into the initialization position.

Step 6

The servos of each arm and leg should be positioned in a straight line. Do not manually manipulate the servos when the robot is powered on.

Step 7

Adjust the software servo values to line up each servo. Start with the servos closest to the body and move outwards.

Step 8

Adjust the **Head Assembly Servos** if needed.

Step 9

Adjust the leg servos as needed. **JD** should stand evenly on both feet.

Step 10

Once the servos are aligned, there should not be any grinding or vibrating noises.

Step 11

Click on **Save** and save the servo profile for future project use. **JD** should now be connected to the software and ready for use.

Step 12

There are many available controls in the **Example Project**. Scroll through the **Auto Position** actions to select the **Wave** command. Click the **Execute** button.

Step 13

JD should be waving his left arm. If not, try reviewing previous episodes for help.

Step 14

Try executing another pre-built command. In the **Soundboard** control, scroll to **I Believe I Can Fly** and select the **Play** button.

Step 15

Watch **JD** fly!

Step 16

Try another one. Select **Headstand** from the **Auto Position** control and execute. Make sure **JD** has lots of room.

Step 17

Control walking movement using the arrow keys.

Step 18

Last one! **Choose You Haunt Me** from the **Soundboard** to see **JD** perform a routine.

Step 19

Continue to explore the available actions. Remember to disconnect, power off, and connect to the battery charger when finished.

Quiz

Question #1
What letters are always at the start of the Wi-Fi connection name?
Question #2
What is a servo profile?
Question #3
What is the name of the control panel used to execute pre-built commands?
View the answers to this quiz at www.ez-robot.com/Tutorials/Lesson/32.
Visit www.TheRobotProgram.com for more episodes.