SYNTHIAM

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.
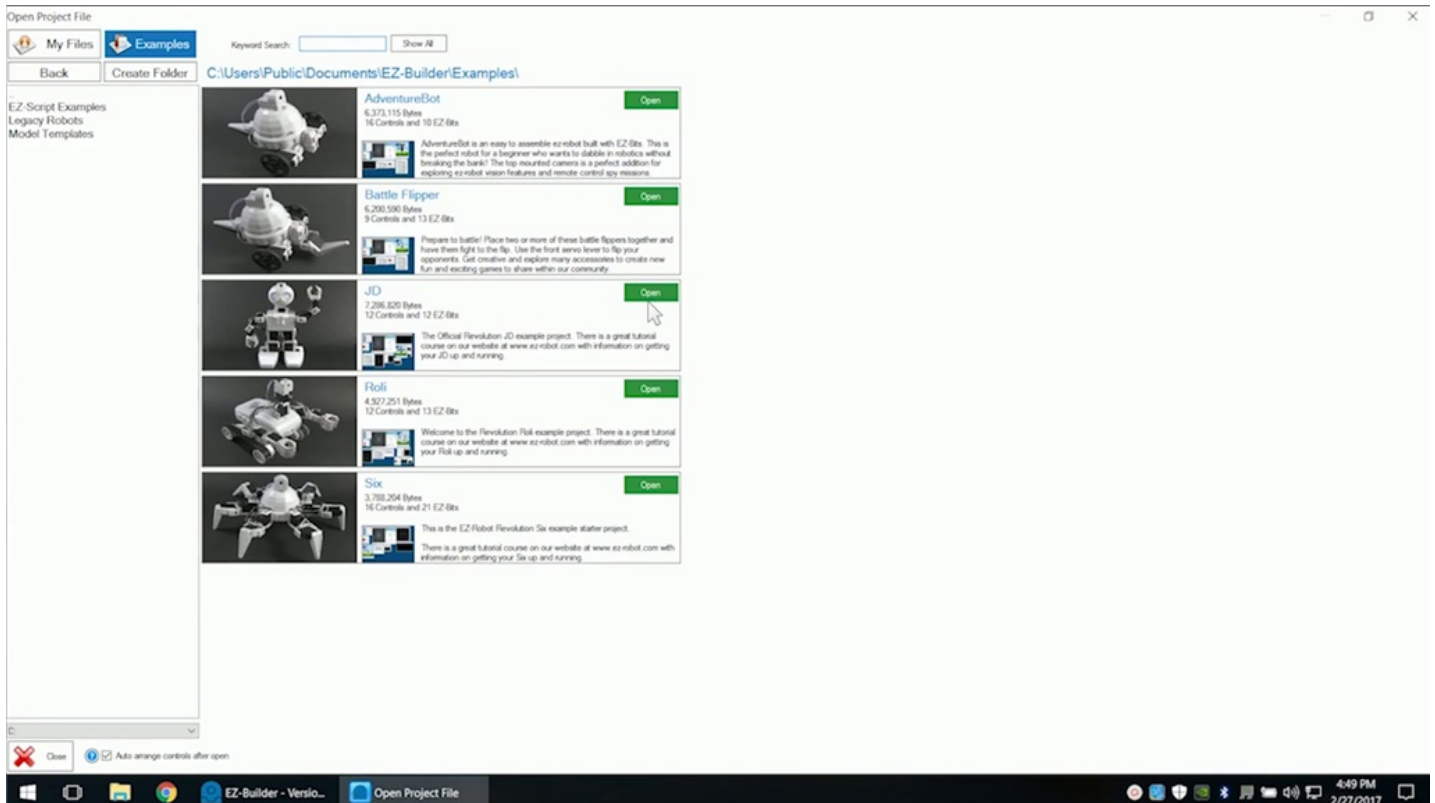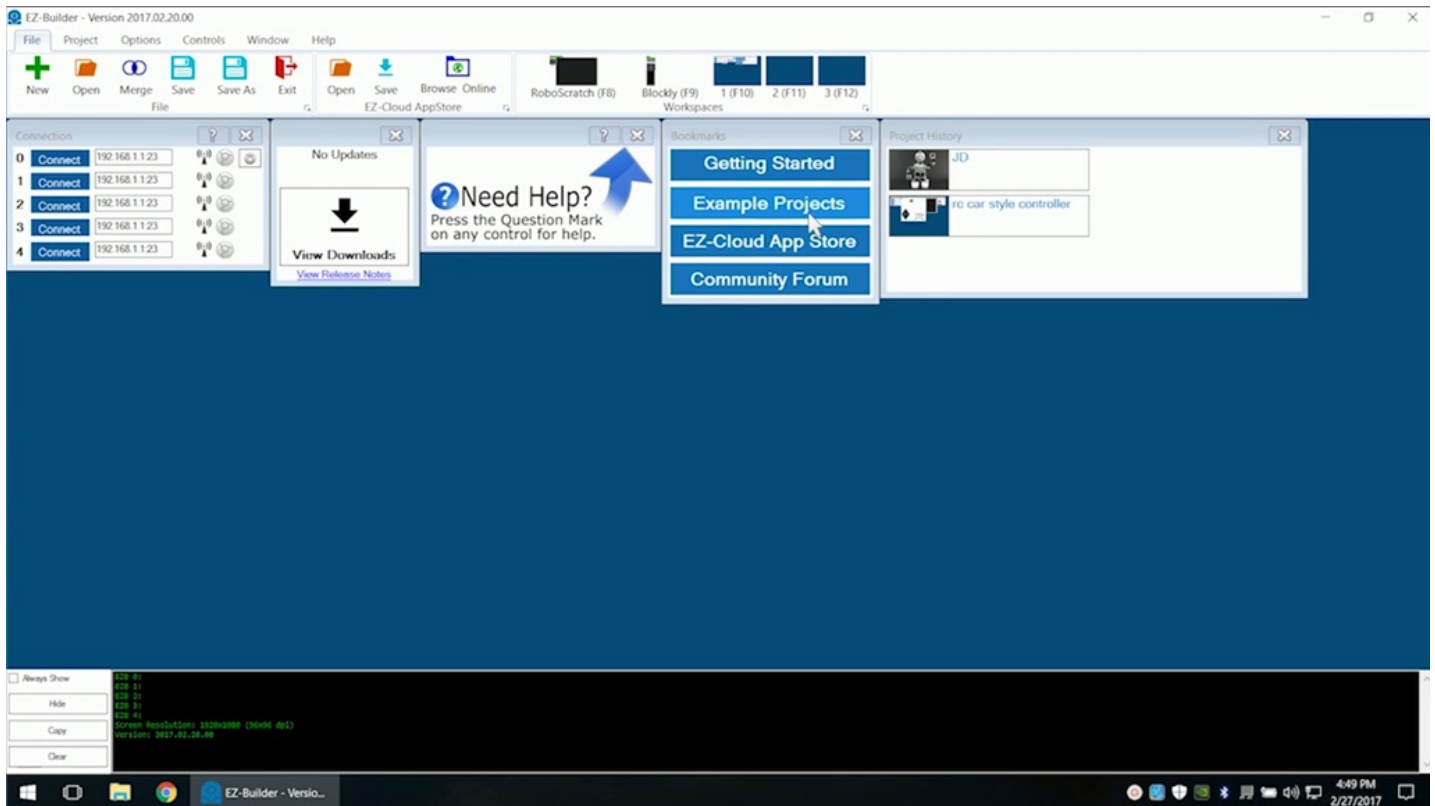
Ⓢ Step 1

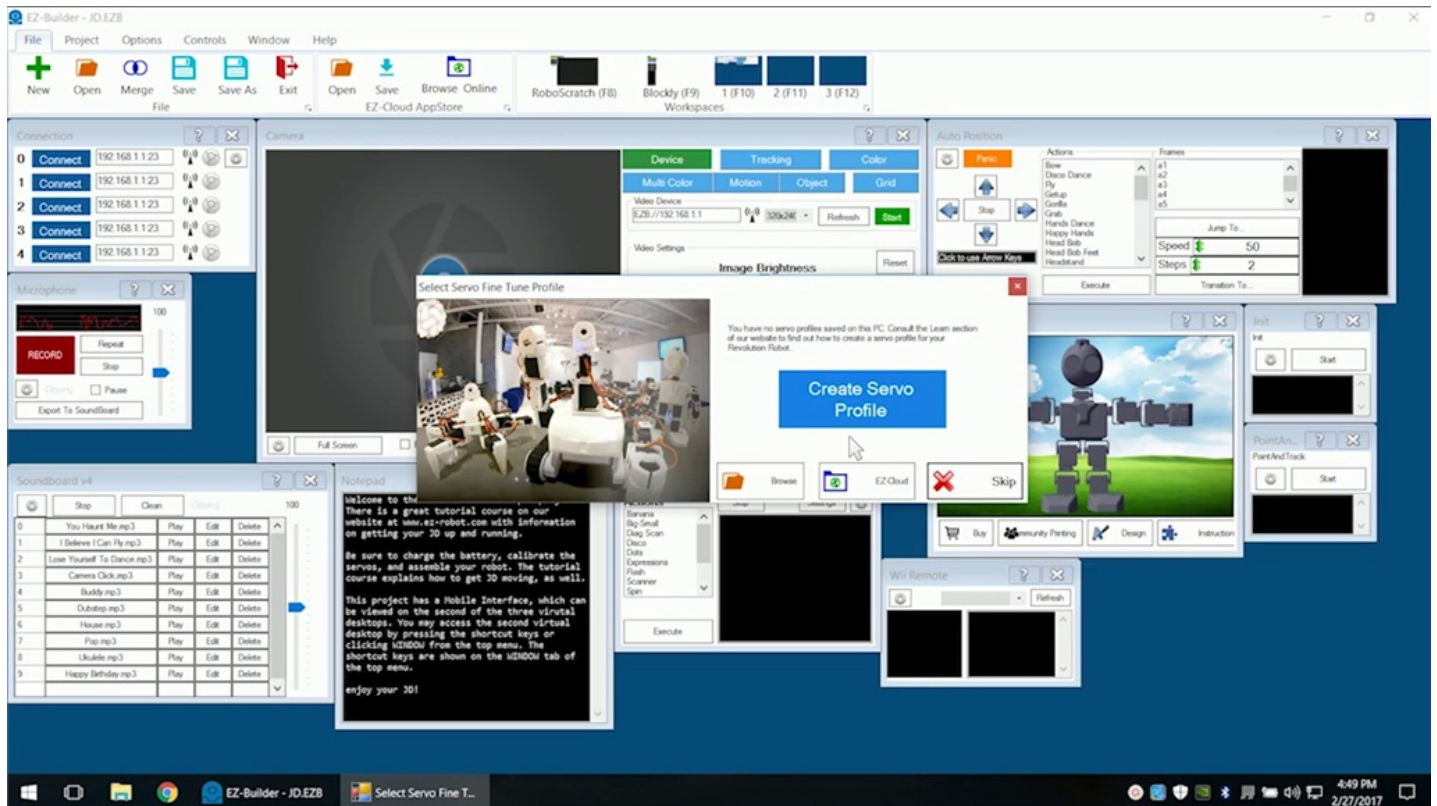Always start with a fully charged robot. Disconnect from the battery charger.

ⓢ 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**.
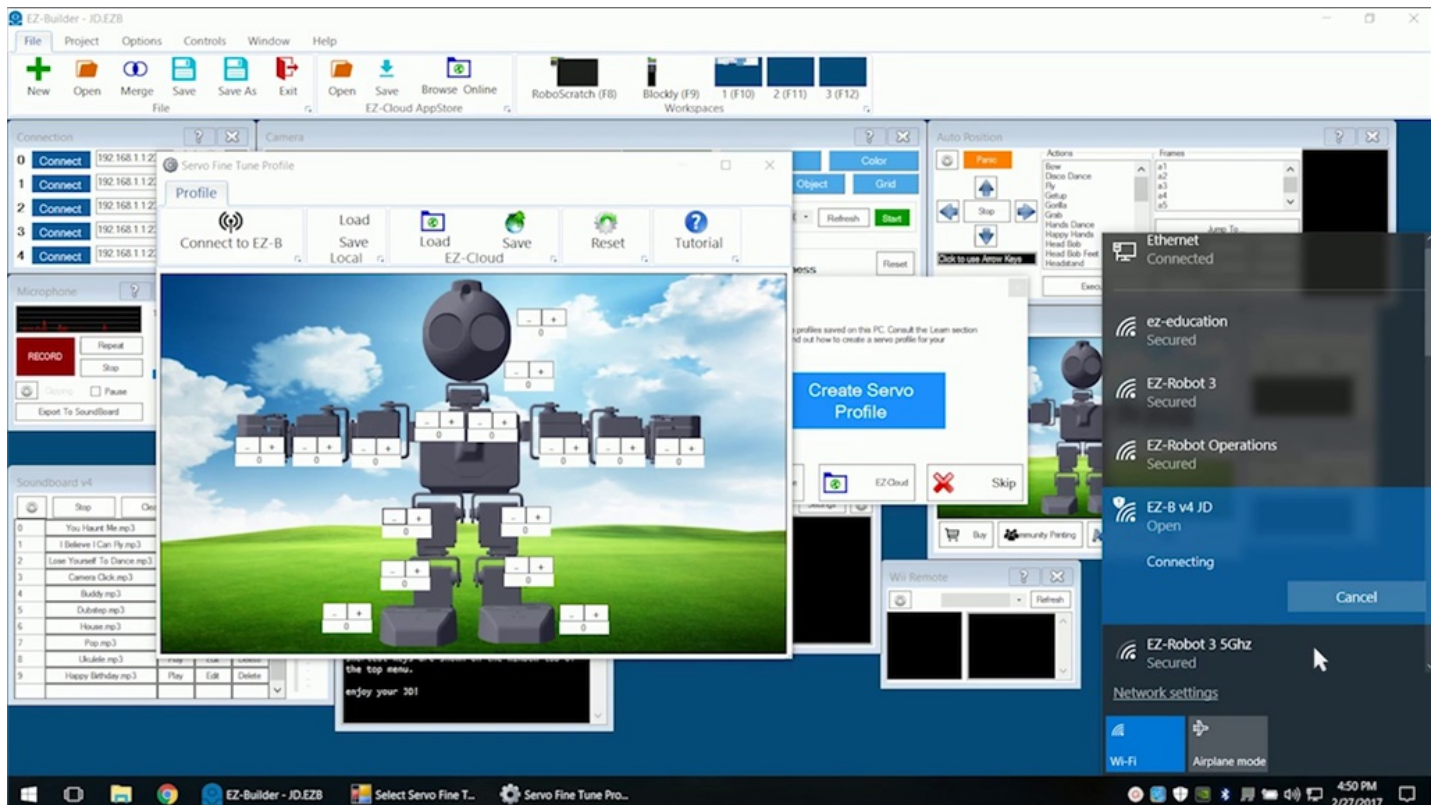
Ⓢ Step 3

The servos may need calibration to compensate for any slight hardware discrepancies. Select **Create Servo Profile** and power on the robot.
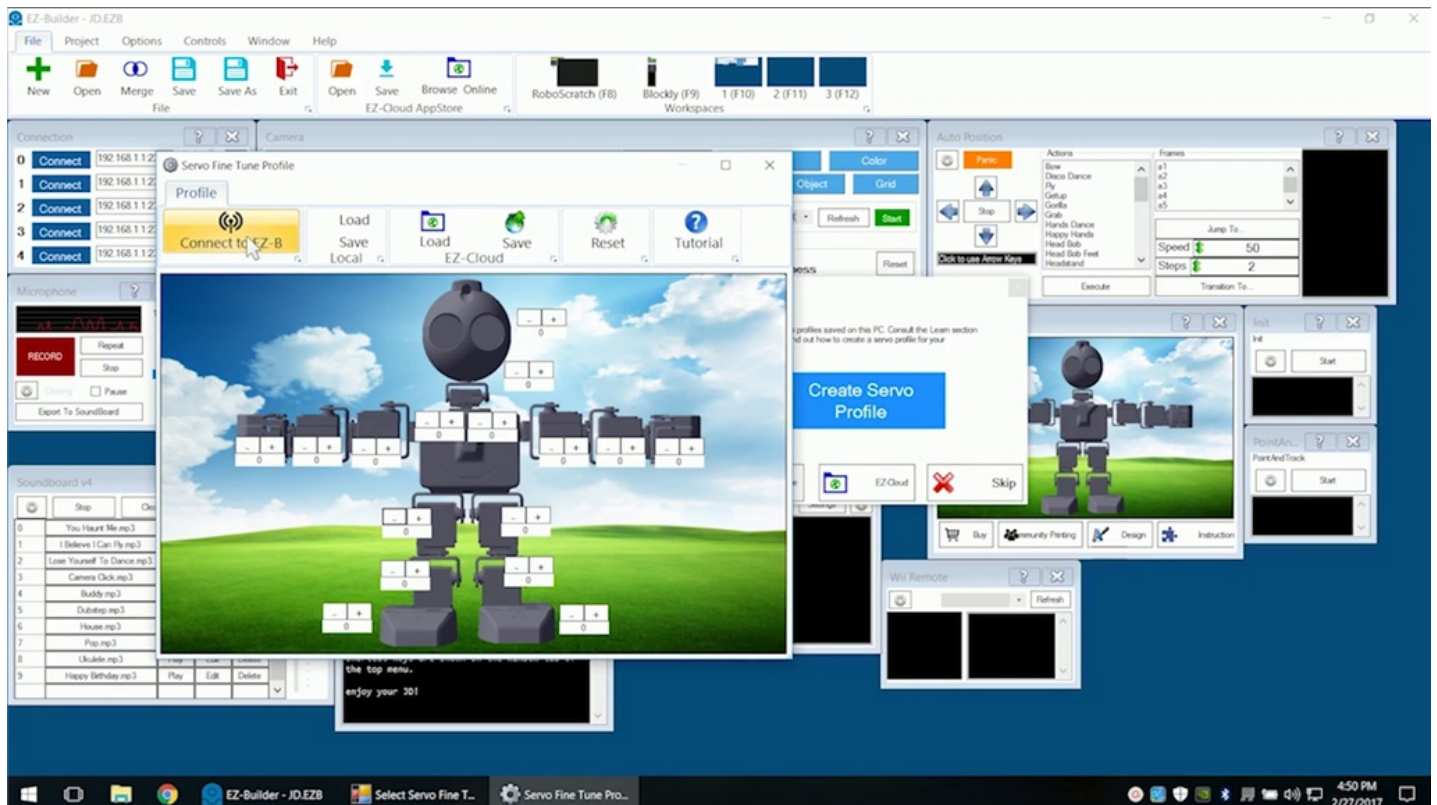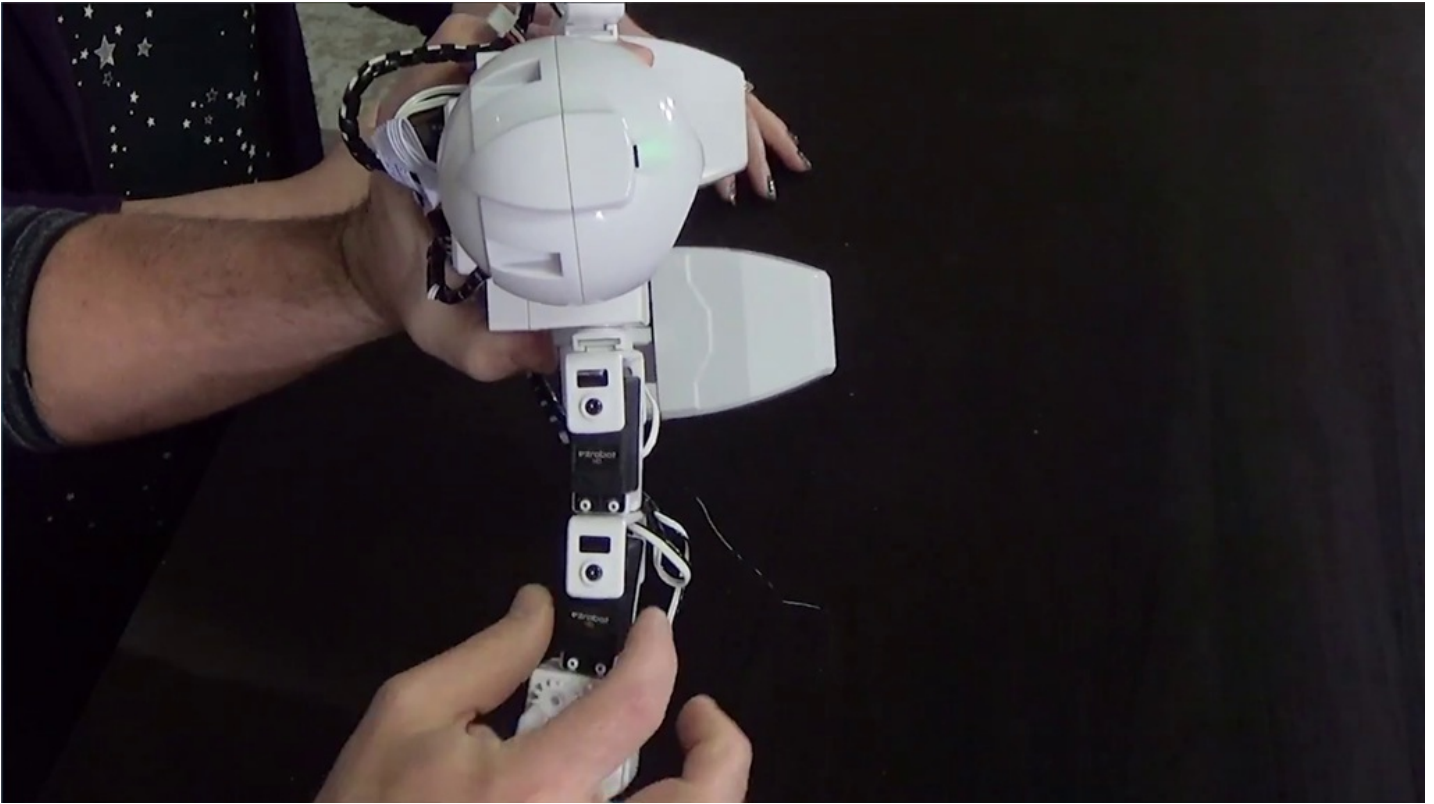
Select the **EZ-B v4** Wi-Fi connection.

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

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.

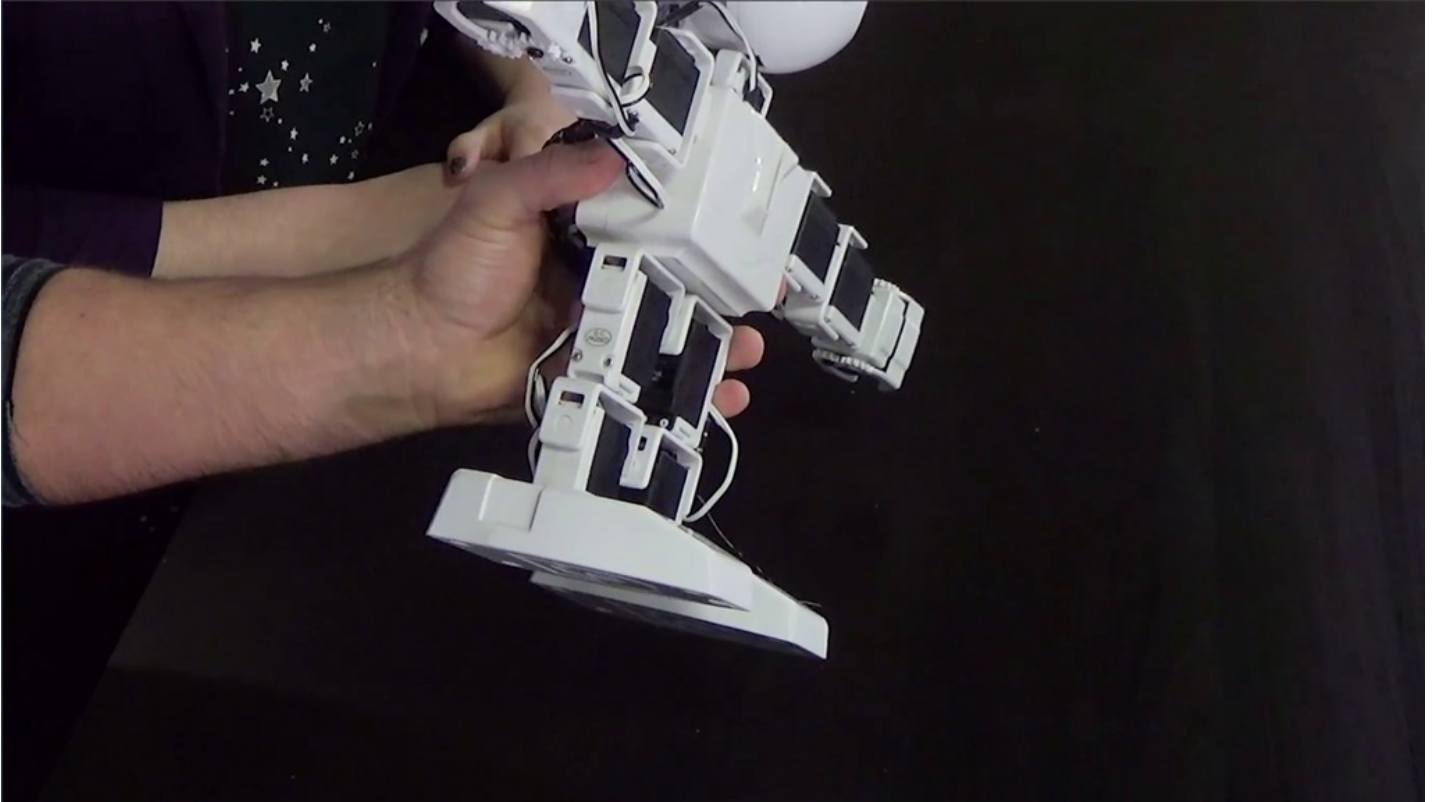Adjust the software servo values to line up each servo. Start with the servos closest to the body and move outwards.
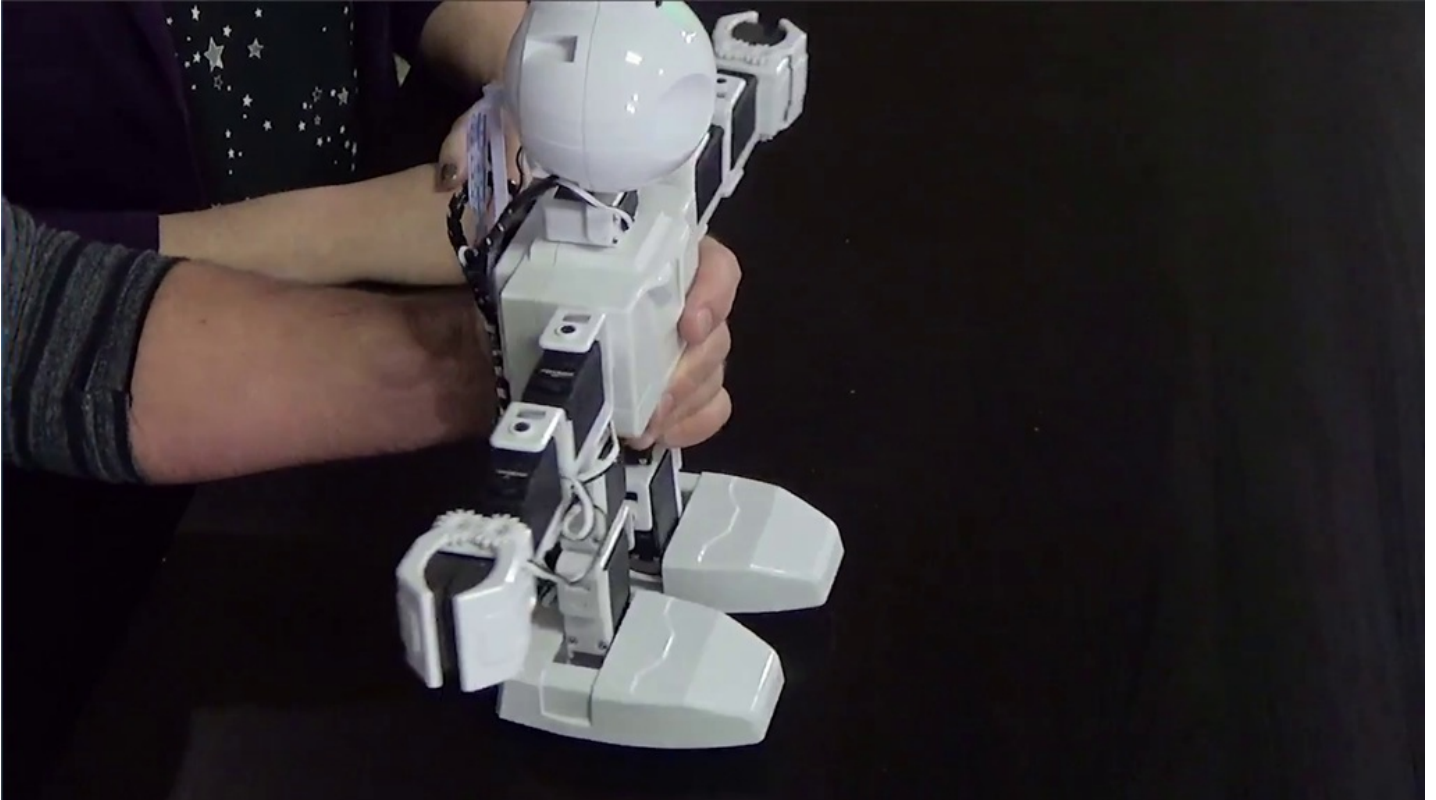
Adjust the **Head Assembly Servos** if needed.

Step 9

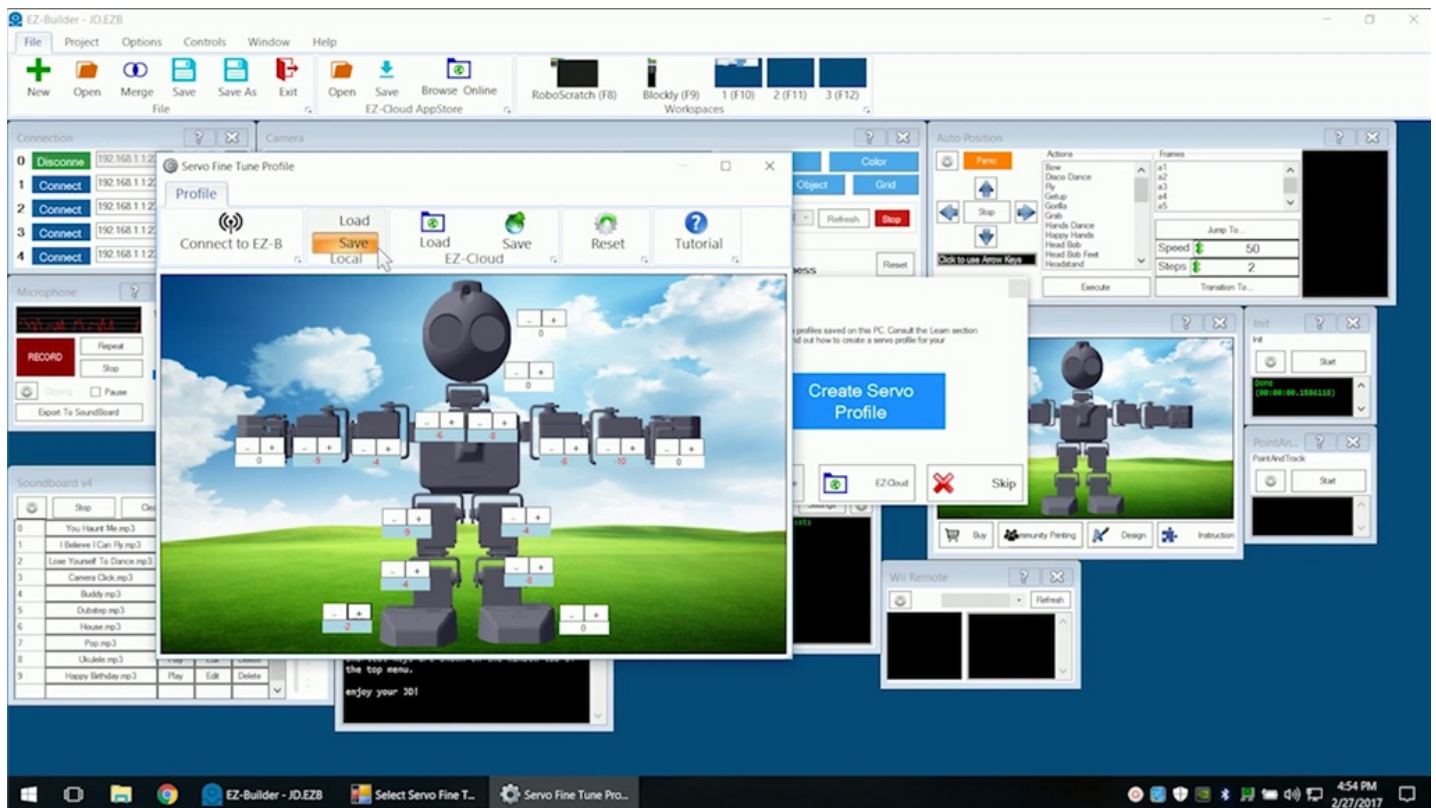Adjust the leg servos as needed. **JD** should stand evenly on both feet.

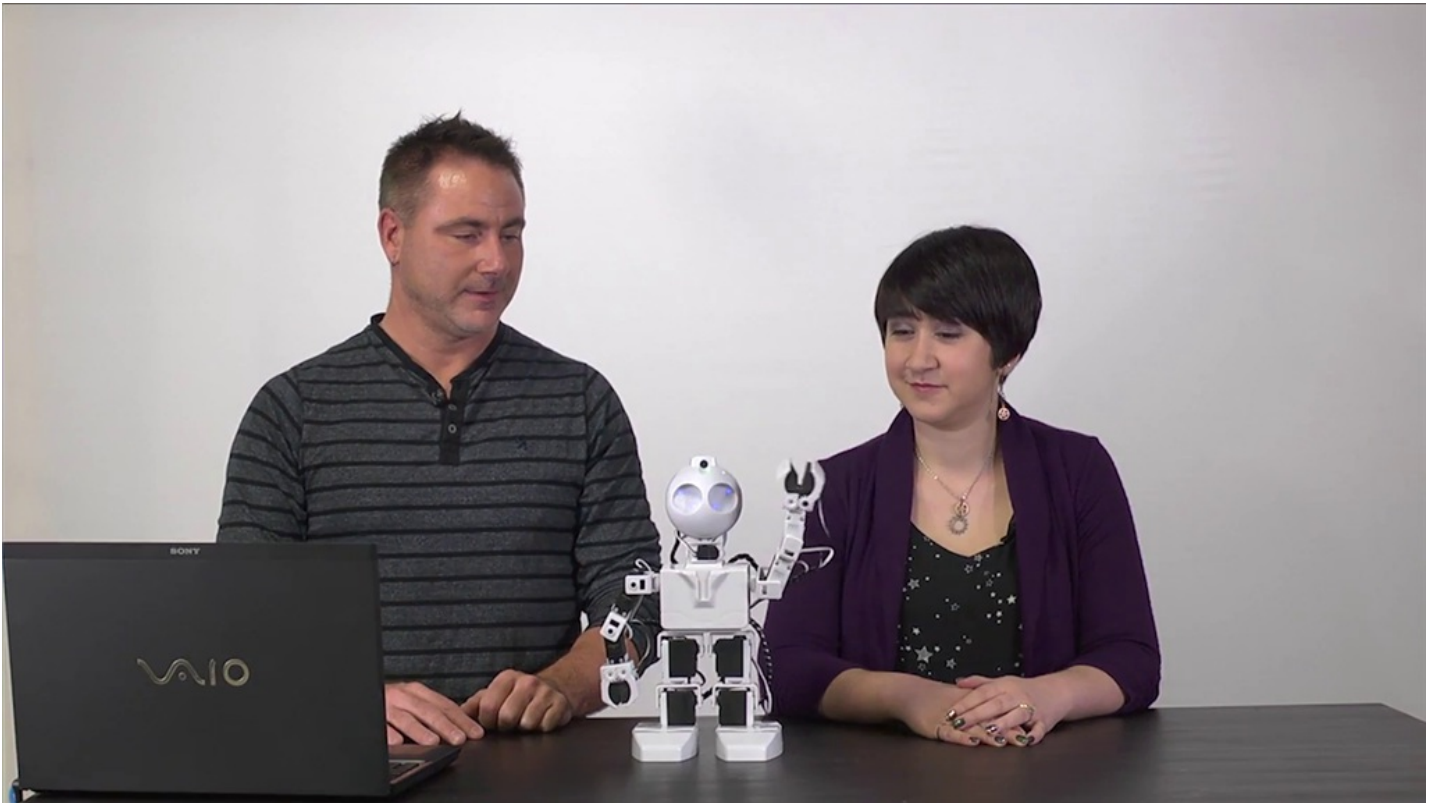Once the servos are aligned, there should not be any grinding or vibrating noises.

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

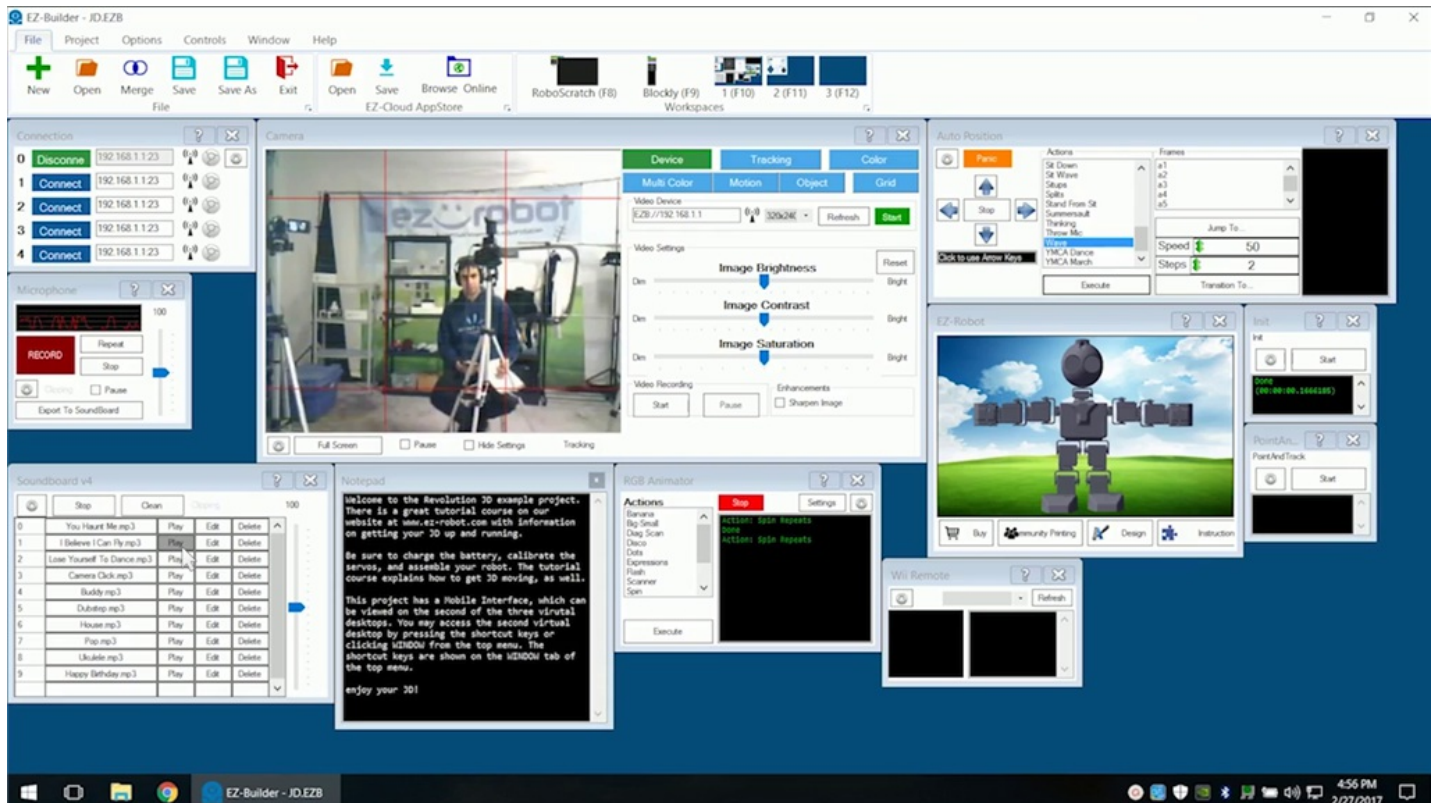There are many available controls in the **Example Project**. Scroll through the **Auto Position** actions to select the **Wave** command. Click the **Execute** button.

JD should be waving his left arm. If not, try reviewing previous episodes for help.
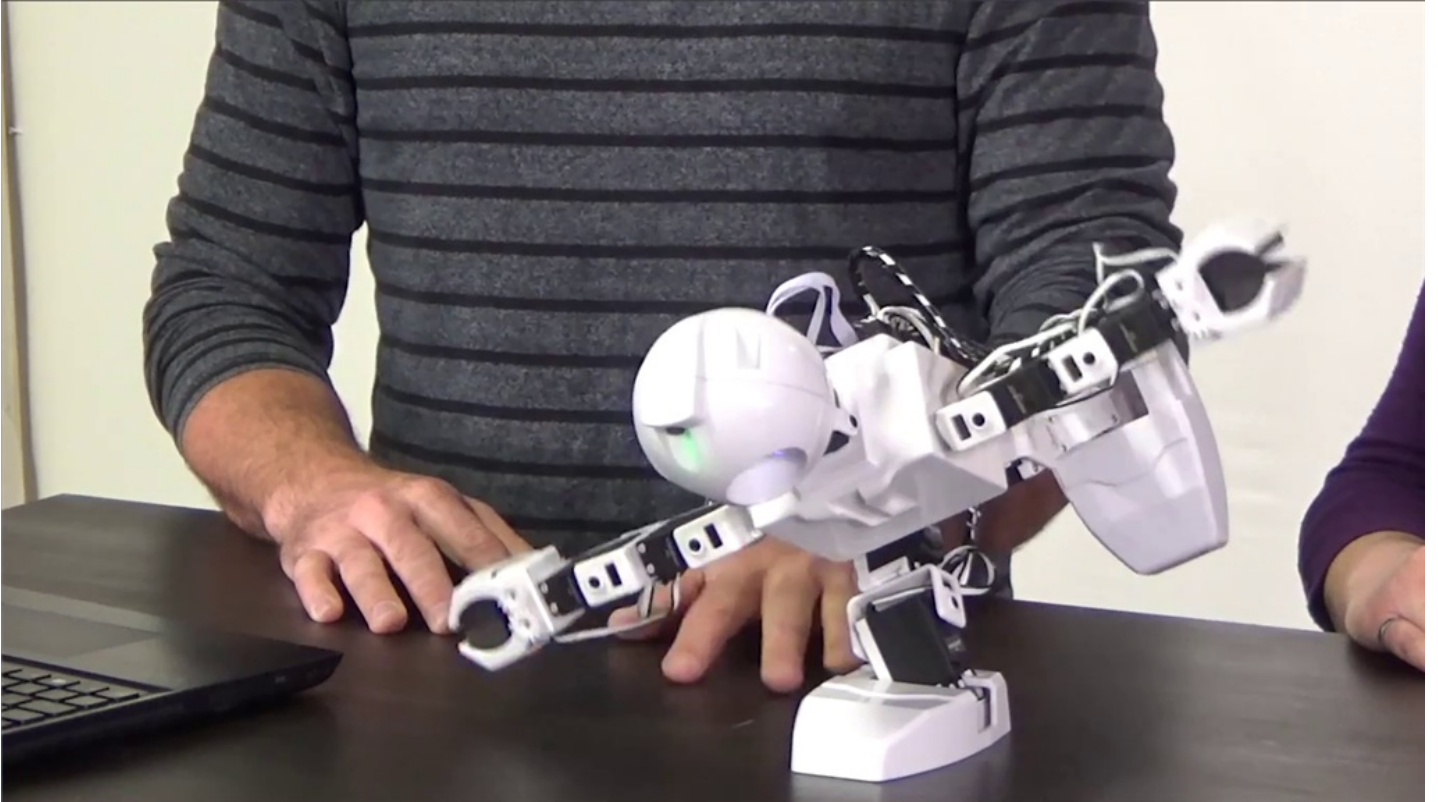
Try executing another pre-built command. In the **Soundboard** control, scroll to **I Believe I Can Fly** and select the **Play** button.
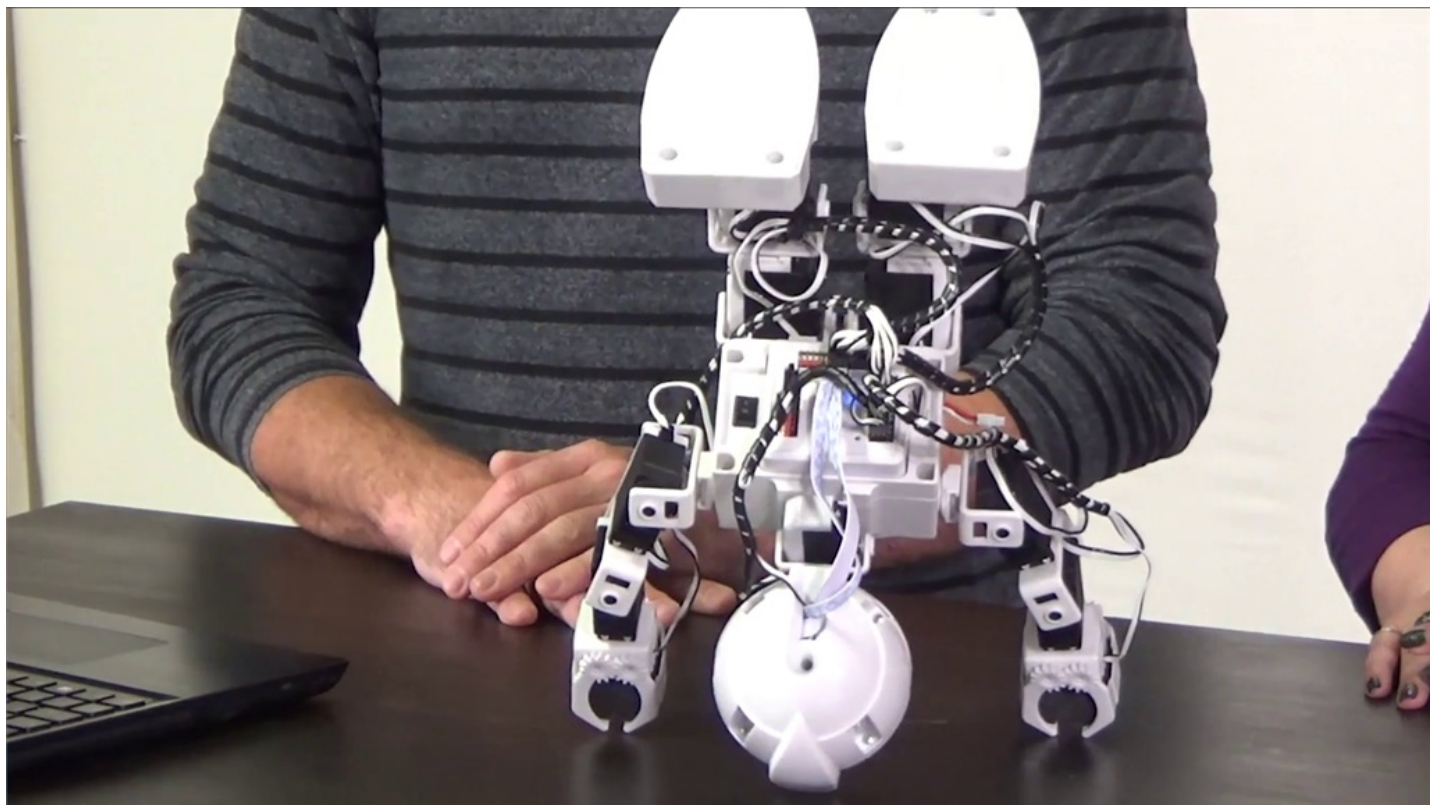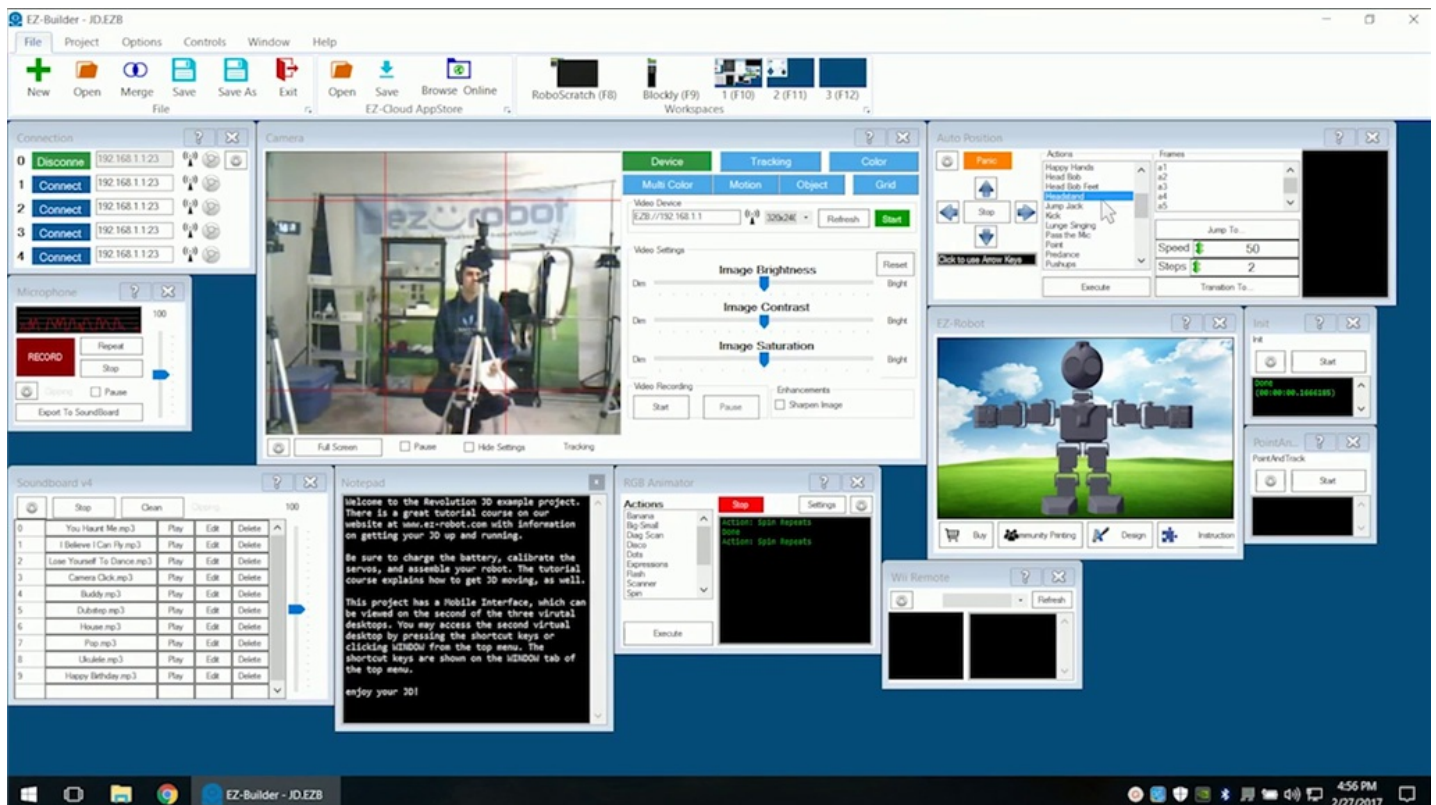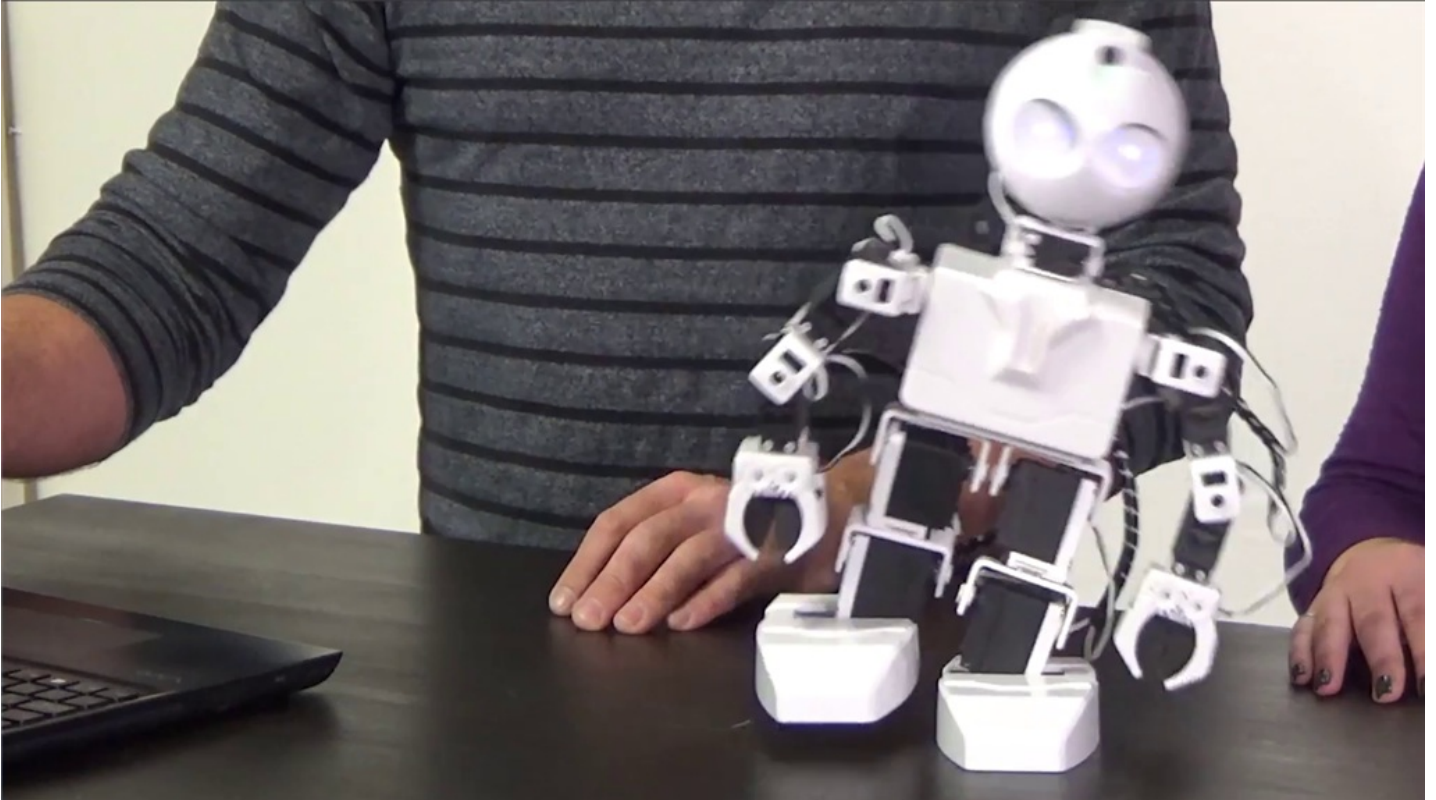
Watch **JD** fly!

Try another one. Select **Headstand** from the **Auto Position** control and execute. Make sure **JD** has lots of room.
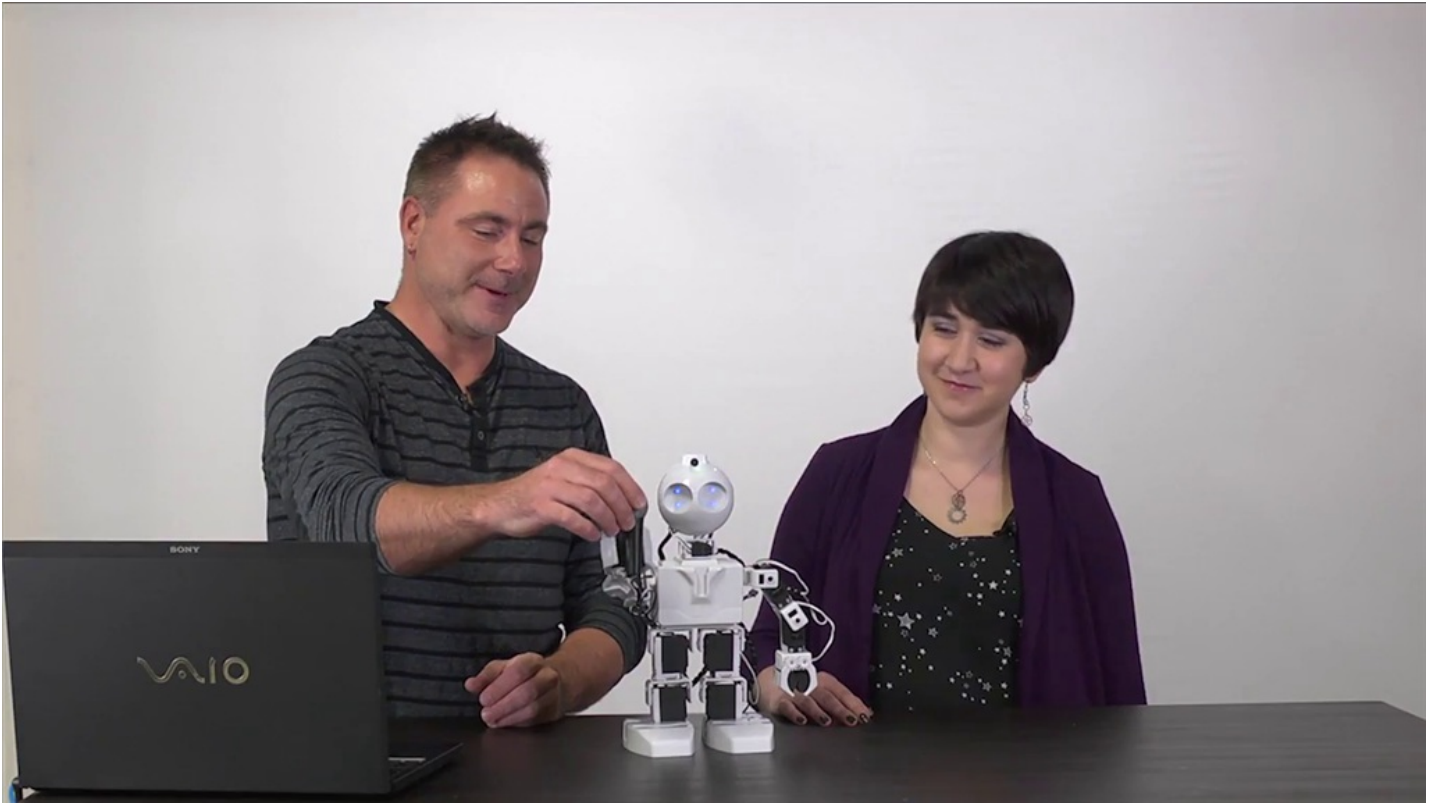
Control walking movement using the arrow keys.

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

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.