

# SYNTHIAM

[synthiam.com](http://synthiam.com)

## The Robot Program Episode 011: Building AdventureBot

This lesson will demonstrate how to build the Revolution AdventureBot robot. Follow along with The Robot Program Episode 011: Building AdventureBot. At the end of this lesson, the reader will have learned how to download the EZ-Builder software, where to access the step-by-step building instructions, how to Clipâ€™nâ€™Play the EZ-Bit robot components, and how to secure the connections to the EZ-B Robot Controller for fully building AdventureBot.

View the video episode here: <https://www.ez-robot.com/Tutorials/Lesson/82>

Last Updated: 5/29/2018

## Professor E's Overview

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This lesson demonstrated how to build the **Revolution AdventureBot** robot.

The **EZ-Builder** software can be downloaded from [www.ez-robot.com](http://www.ez-robot.com).

Always start with a fully charged robot. Remember to disconnect the wires carefully.

Within the software, follow along with the step-by-step building instructions.

The robot components are called **EZ-Bits**. Each **EZ-Bit** connects to the **EZ-B Robot Controller** using male-to-female connections at the back of the robot. The port layout can be viewed in the **Getting Started Guide**. Be sure to match the wire colors to the corresponding port colors.

Adjust the cables so that they are coming out of the back of each **EZ-Bit**, which will make the connections easier to organize. Use **Wire Wraps** to clean up the cables into bundled sections, allowing the robot to have full range of motion. Check that the cables are not pinched by the **Dome**.



## Step 1

Download **EZ-Builder** from [ez-robot.com](http://ez-robot.com).

The screenshot shows a web browser window displaying the EZ-Builder for Windows download page. The browser's address bar shows the URL [www.ez-robot.com/EZ-Builder/](http://www.ez-robot.com/EZ-Builder/). The page features a blue header with the 'ezrobot' logo and navigation links: Explore, Products, Software (selected), Learn, and Community. A secondary navigation bar includes links for Windows, Plugins, Mobile, UniversalBot, Windows SDK, Mono SDK, and 3rd Party. The main content area has a light blue background with the title 'EZ-Builder For Windows'. On the left, there is a video player with the title 'The EZ-Life... All The Robots!' and a play button. To the right of the video, there is a green button labeled 'Download EZ-Builder Installer.msi', two smaller blue buttons labeled 'Manual' and 'Release notes', and the text 'EZ-Builder Version 2017.03.06.00'. Below this, a paragraph describes the software as 'The software for robots! World's easiest and most powerful robot software designed for EZ-Robots and more. Scales between beginner and advanced users, this software introduces amazing features that will bring your robot to life by combining engineering and creativity.' The Windows taskbar at the bottom shows the 'EZ-Builder Installer' window is open, and the system clock indicates 3:38 PM on 3/16/2017.

EZ-Builder for Windows

ezrobot

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## EZ-Builder For Windows

The EZ-Life... All The Robots!

Download EZ-Builder Installer.msi

Manual Release notes

EZ-Builder Version 2017.03.06.00

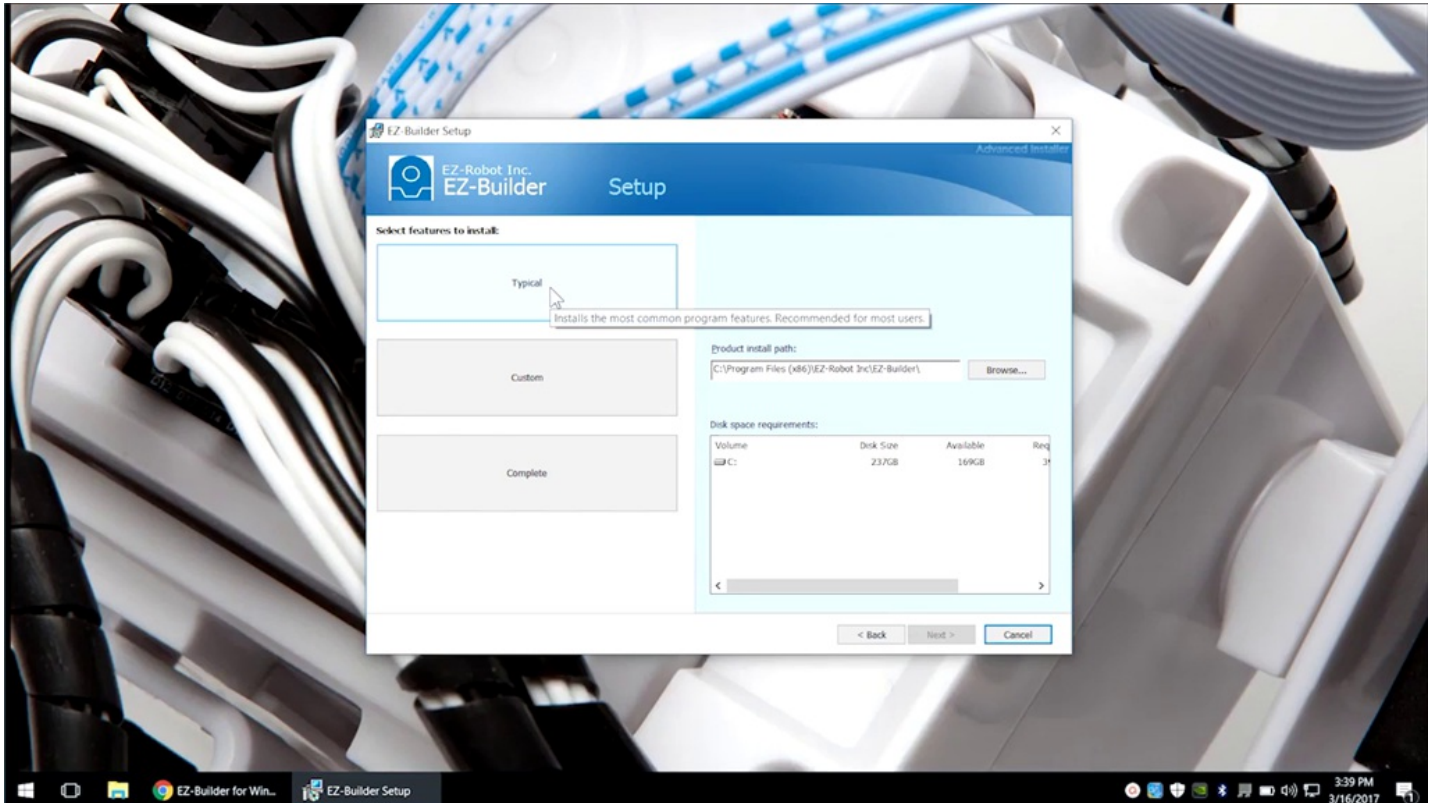
The software for robots! World's easiest and most powerful robot software designed for EZ-Robots and more. Scales between beginner and advanced users, this software introduces amazing features that will bring your robot to life by combining engineering and creativity.

EZ-Builder Installer

3:38 PM 3/16/2017

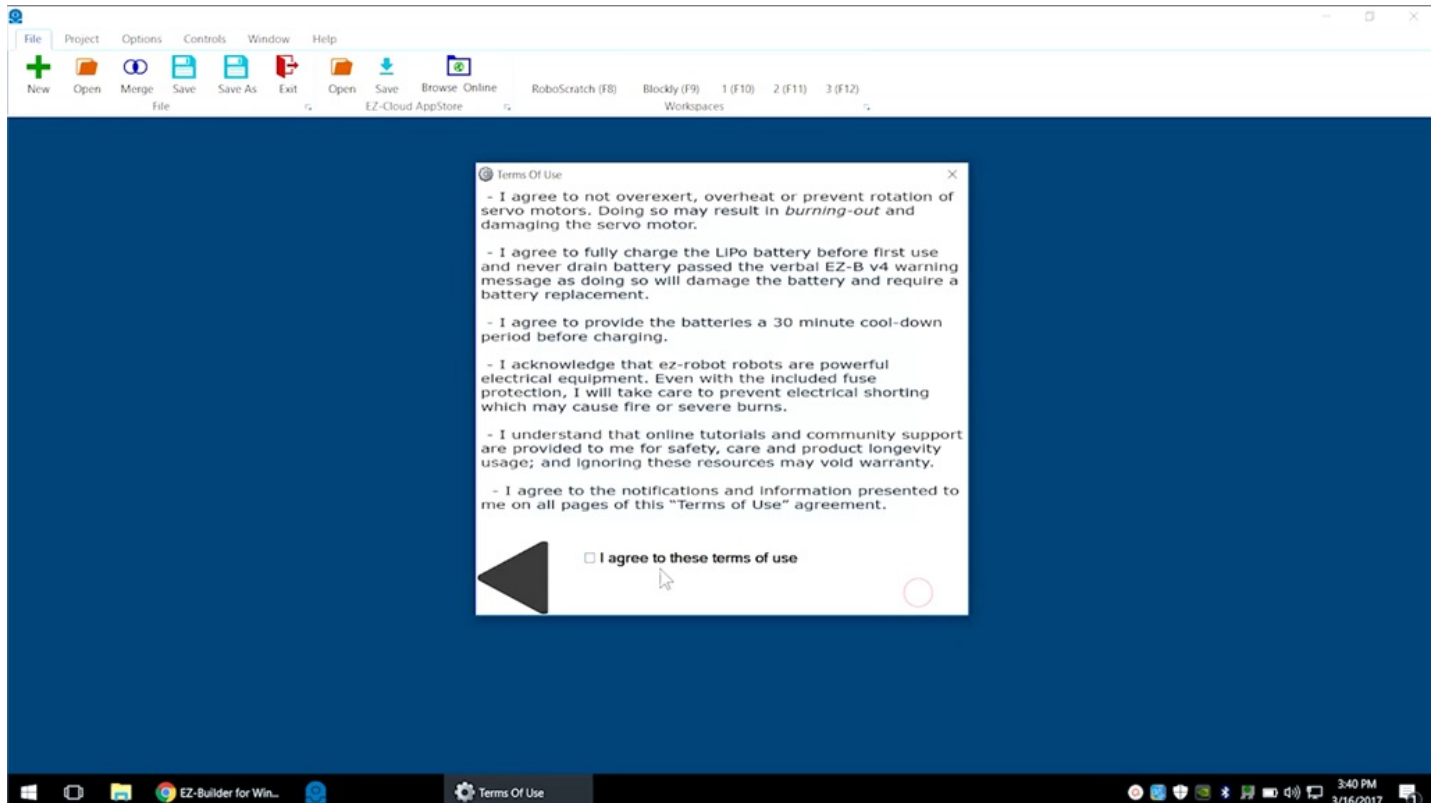
## Step 2

Double-click to begin installation. Choose **Typical** as the install type.



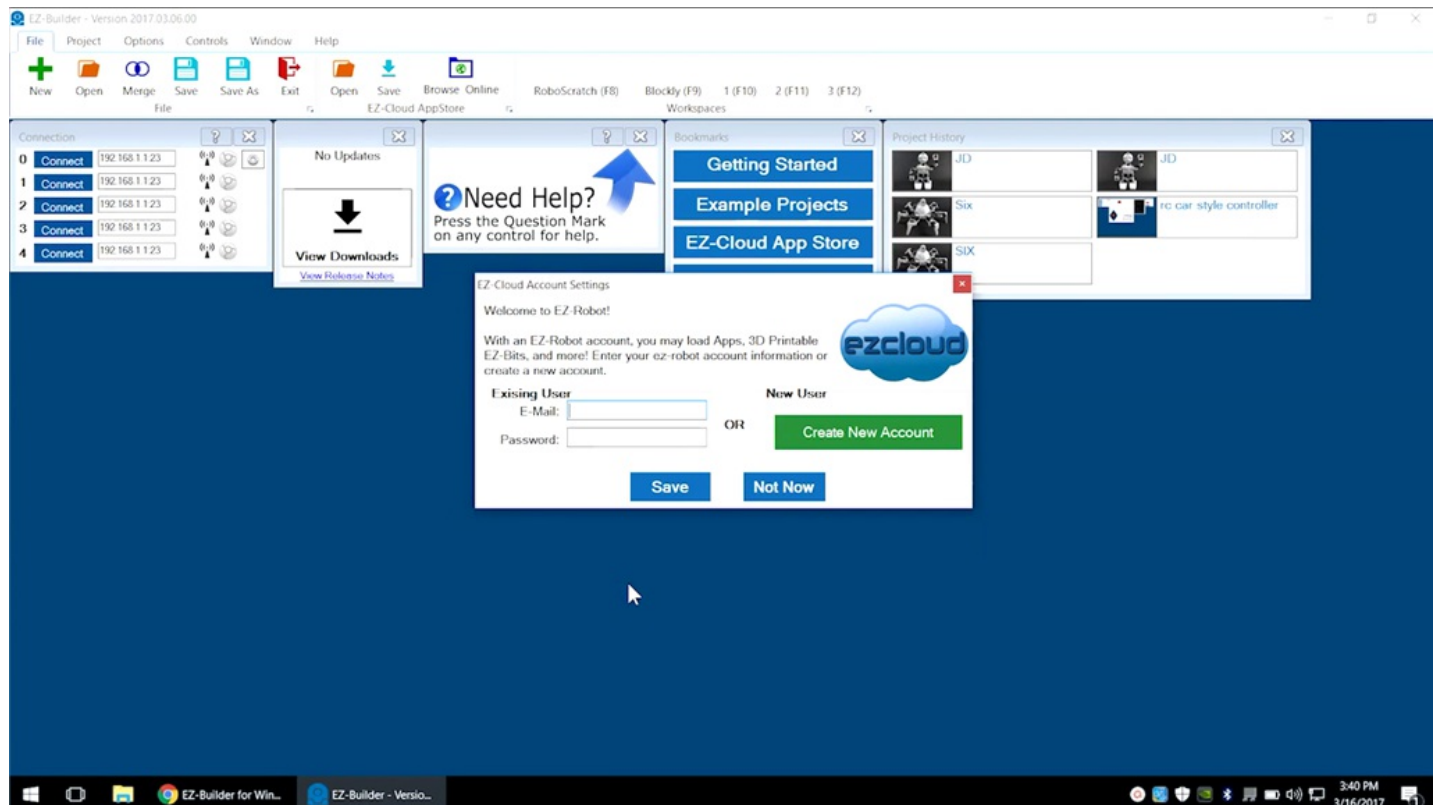
## Step 3

Read and agree to the **Terms of Use**.



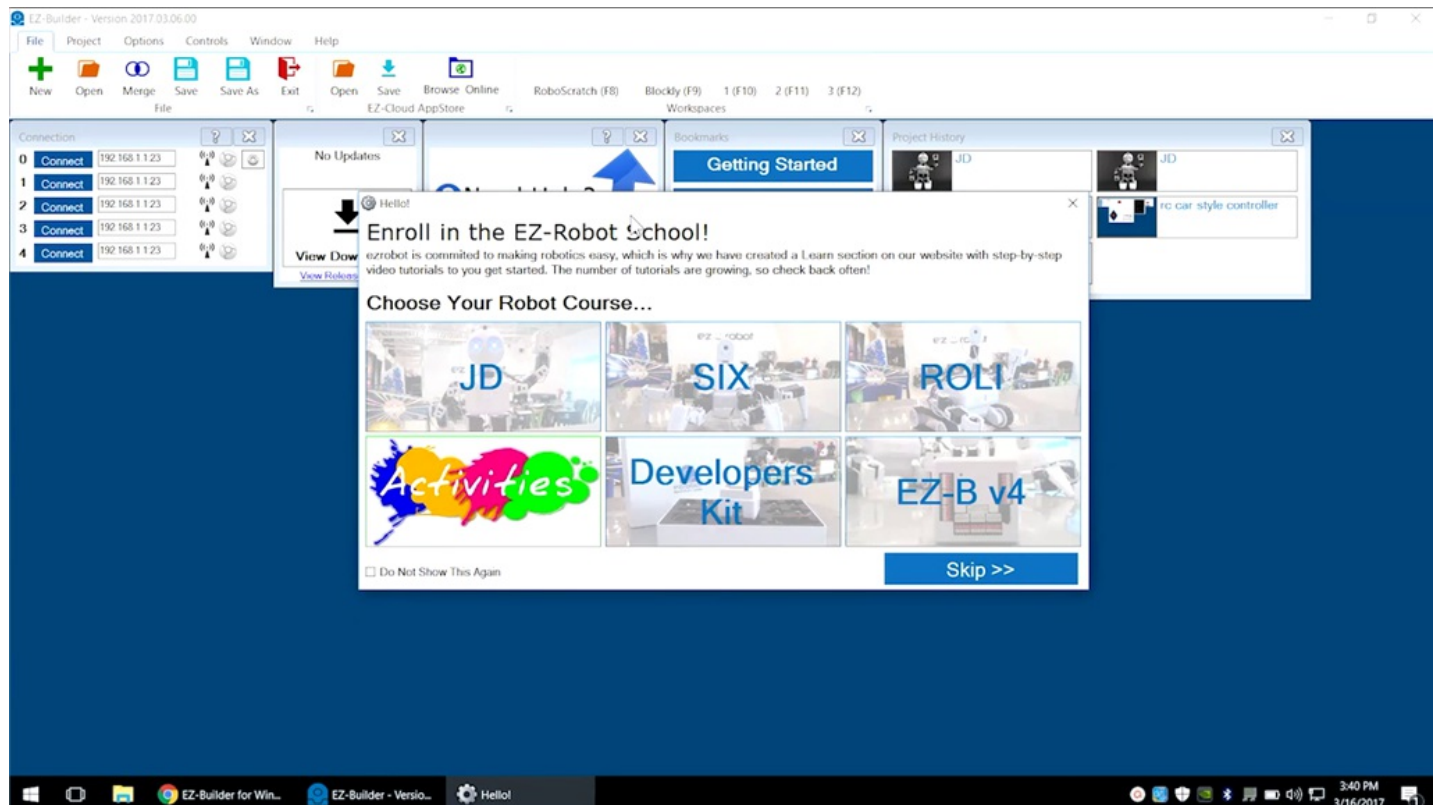
## Step 4

Login or create an **EZ-Cloud** account.



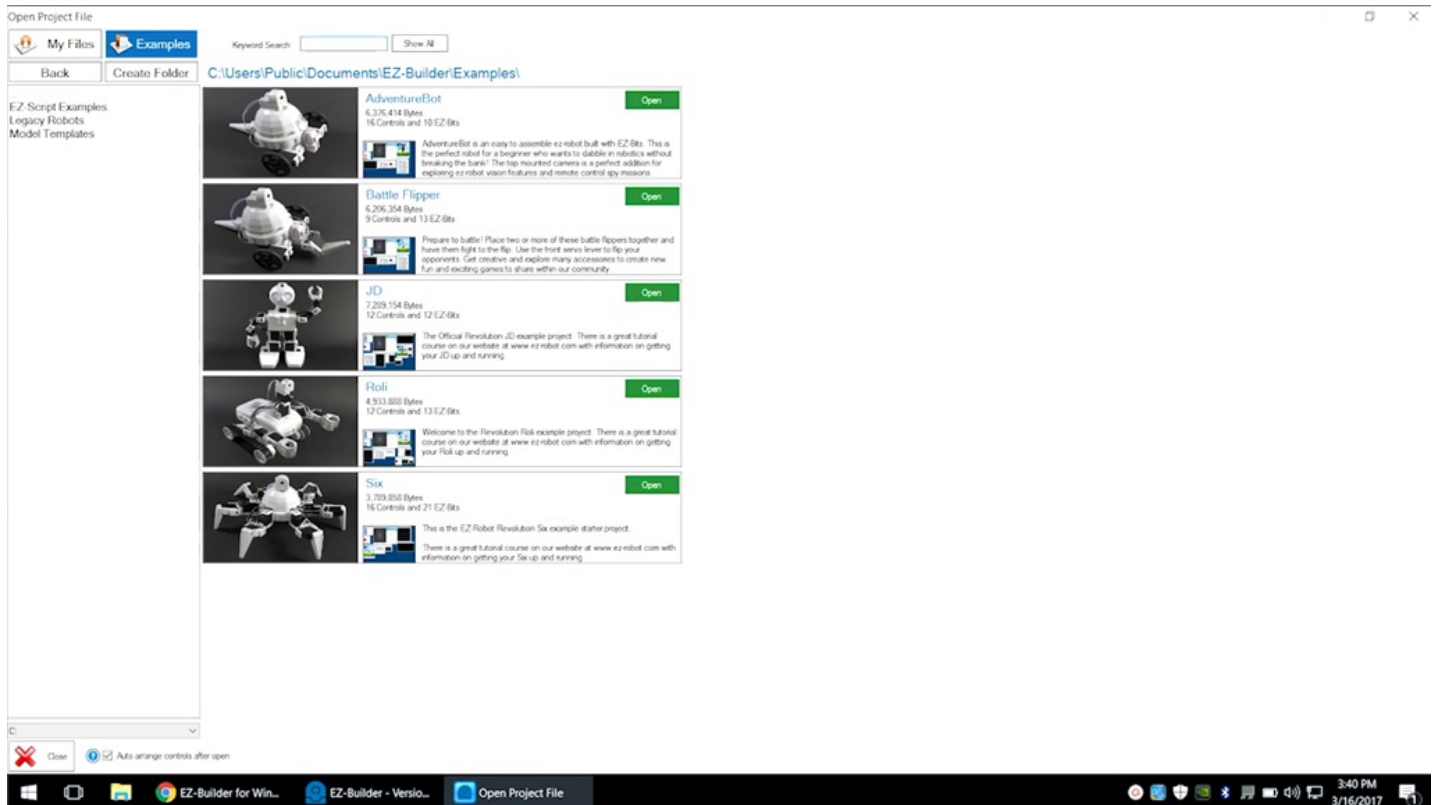
## Step 5

Find more tutorials at the **EZ-Robot School**.



## Step 6

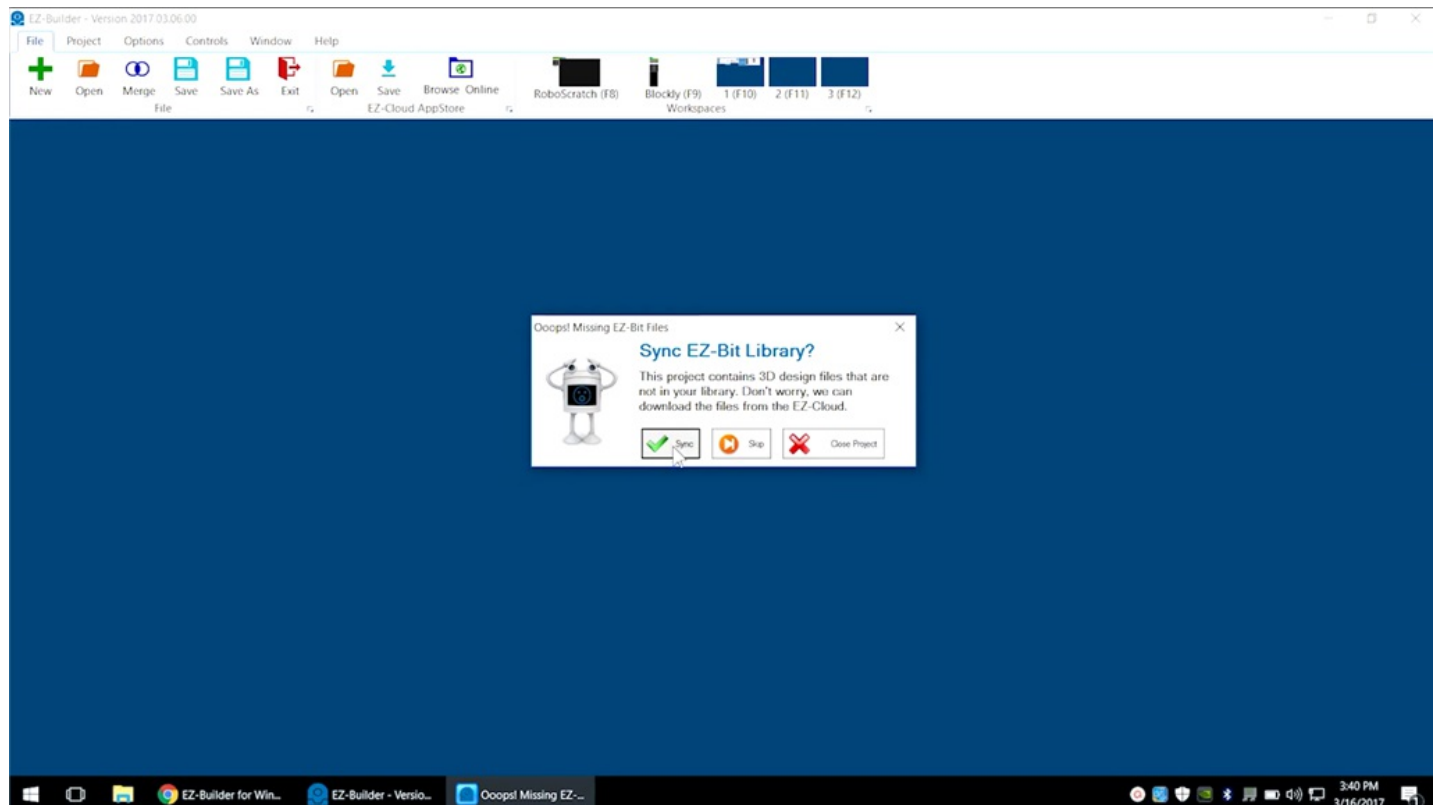
Load the **AdventureBot** project from the **Example Projects** menu.





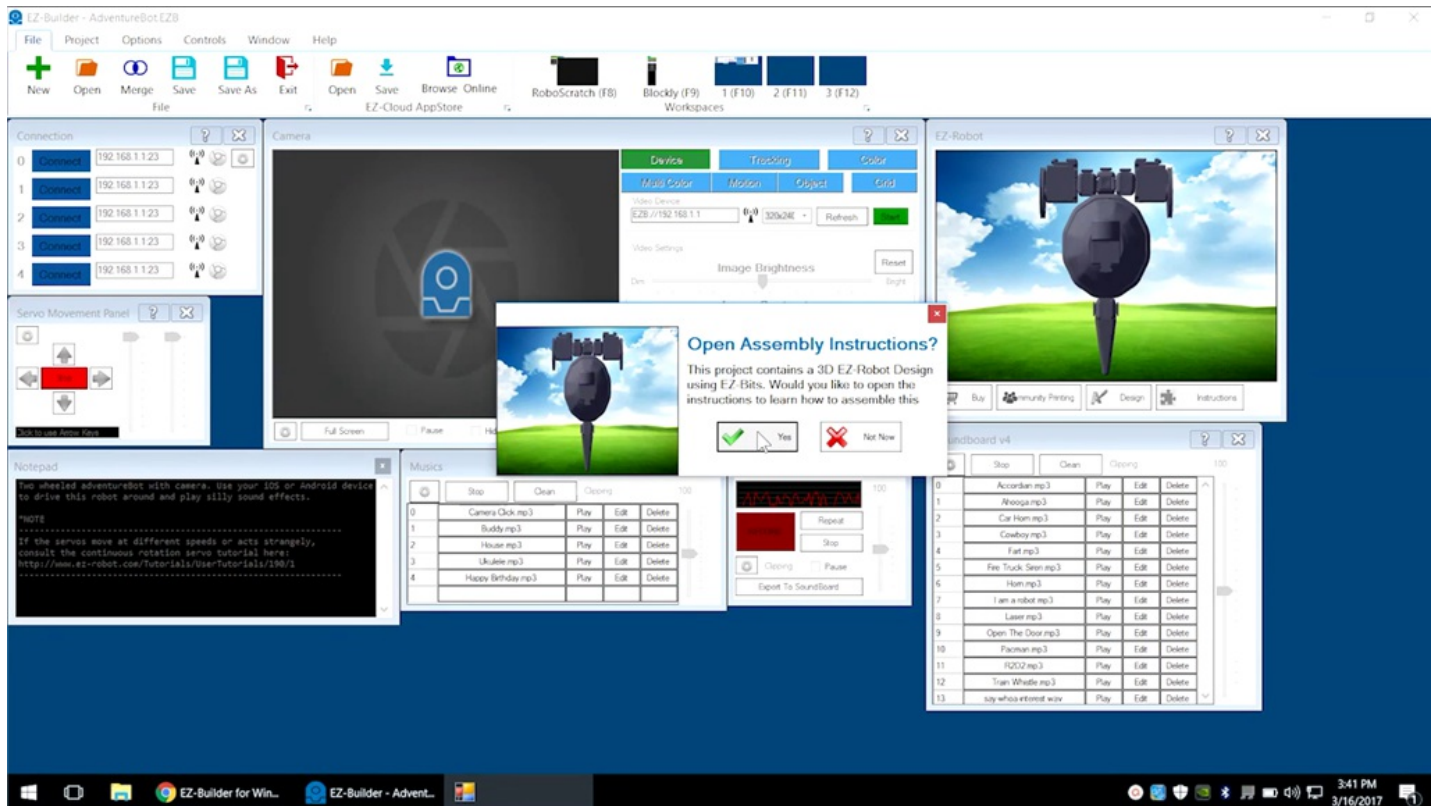
## Step 7

**EZ-Bits** are robot parts. Sync to update the library.



## Step 8

Always charge the battery before using **AdventureBot**. Choose **Yes** to open the assembly instructions.



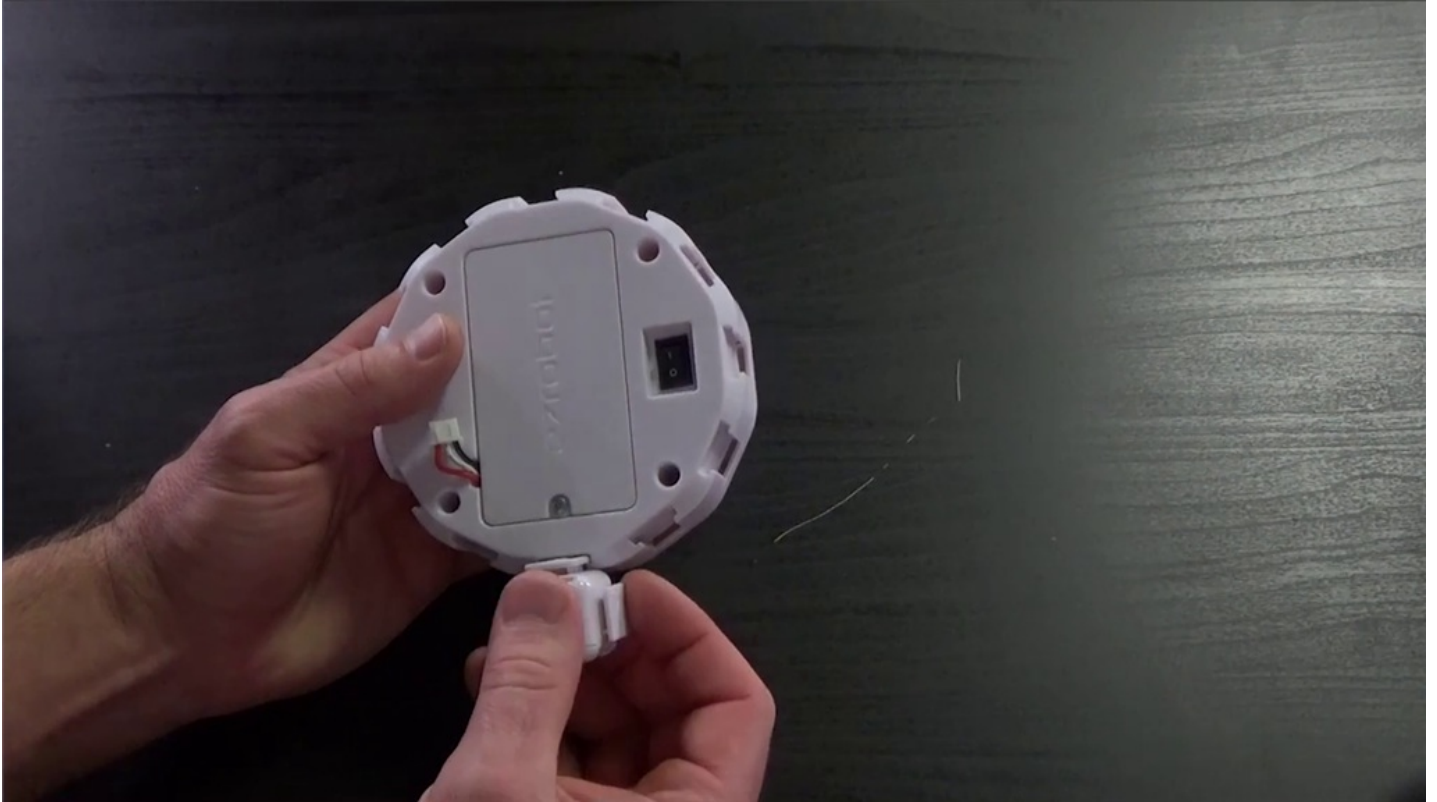
## Step 9

Insert **EZ-B** into the **Dodecagon Body**.



## Step 10

**Clipâ€™nâ€™Play** an **Extension Cube** at the back of the **Dodecagon Body**.



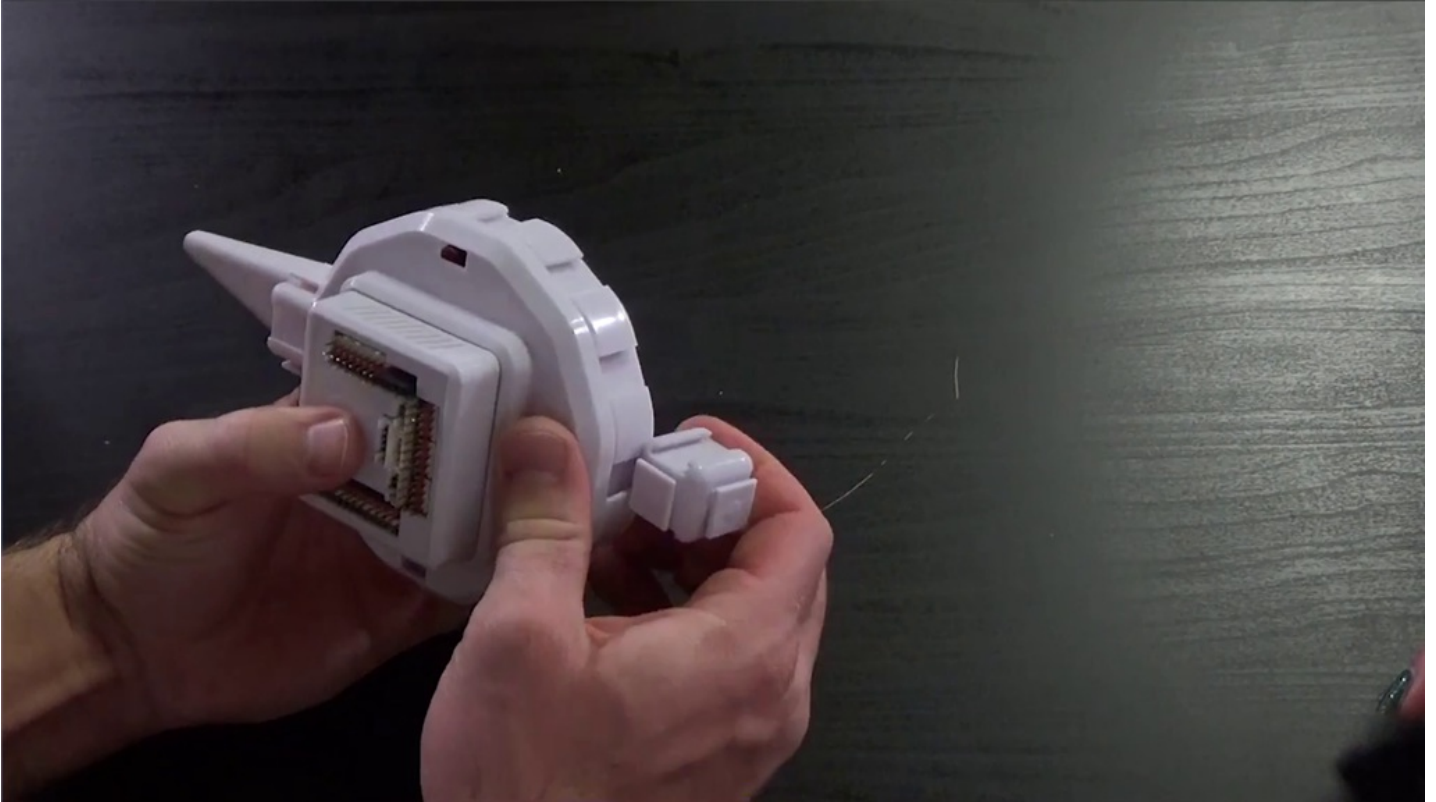
## Step 11

**Clipâ€™nâ€™Play** the **Foot** to the **Extension Cube**.



## Step 12

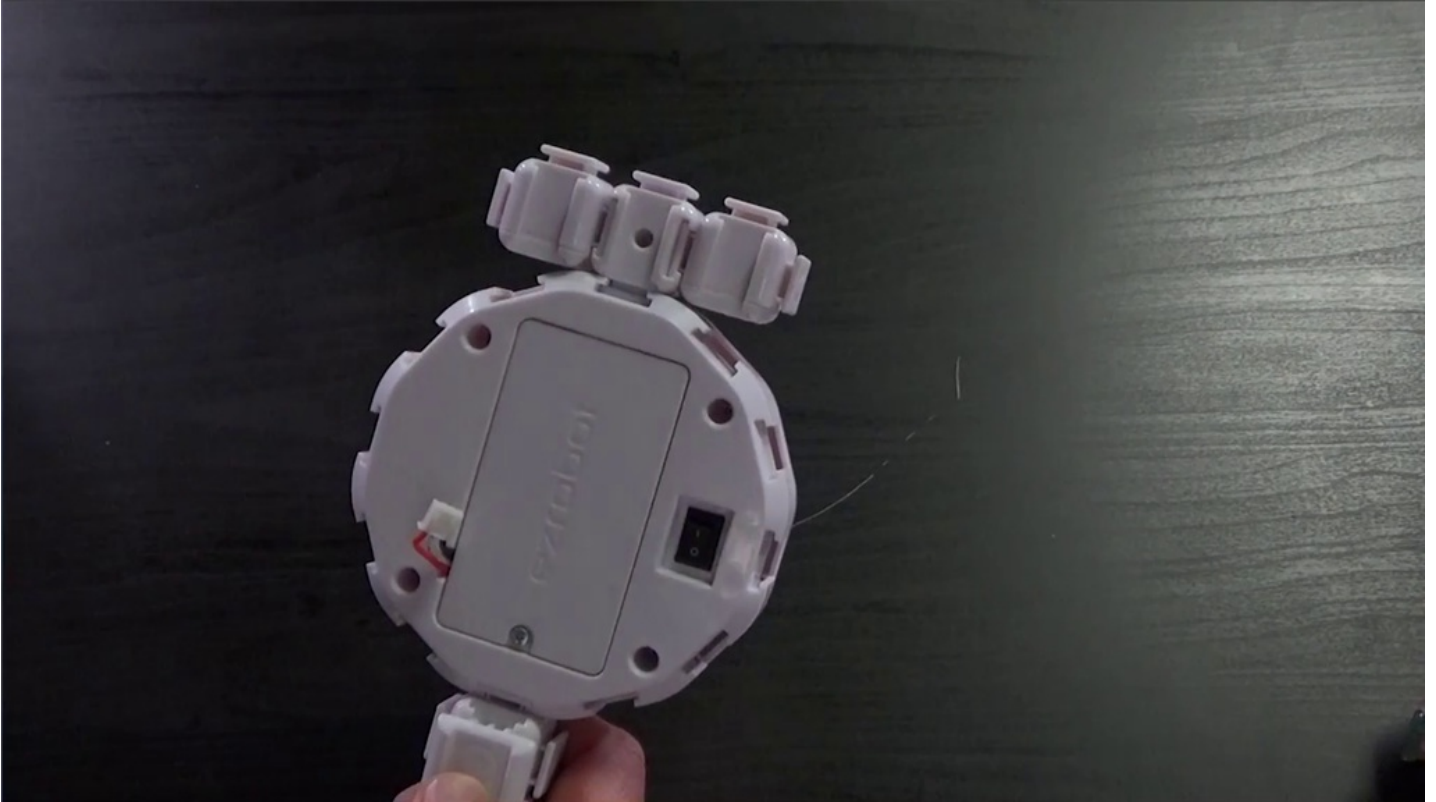
**Clipâ€™nâ€™Play** an **Extension Cube** at the front of the **Dodecagon Body**.





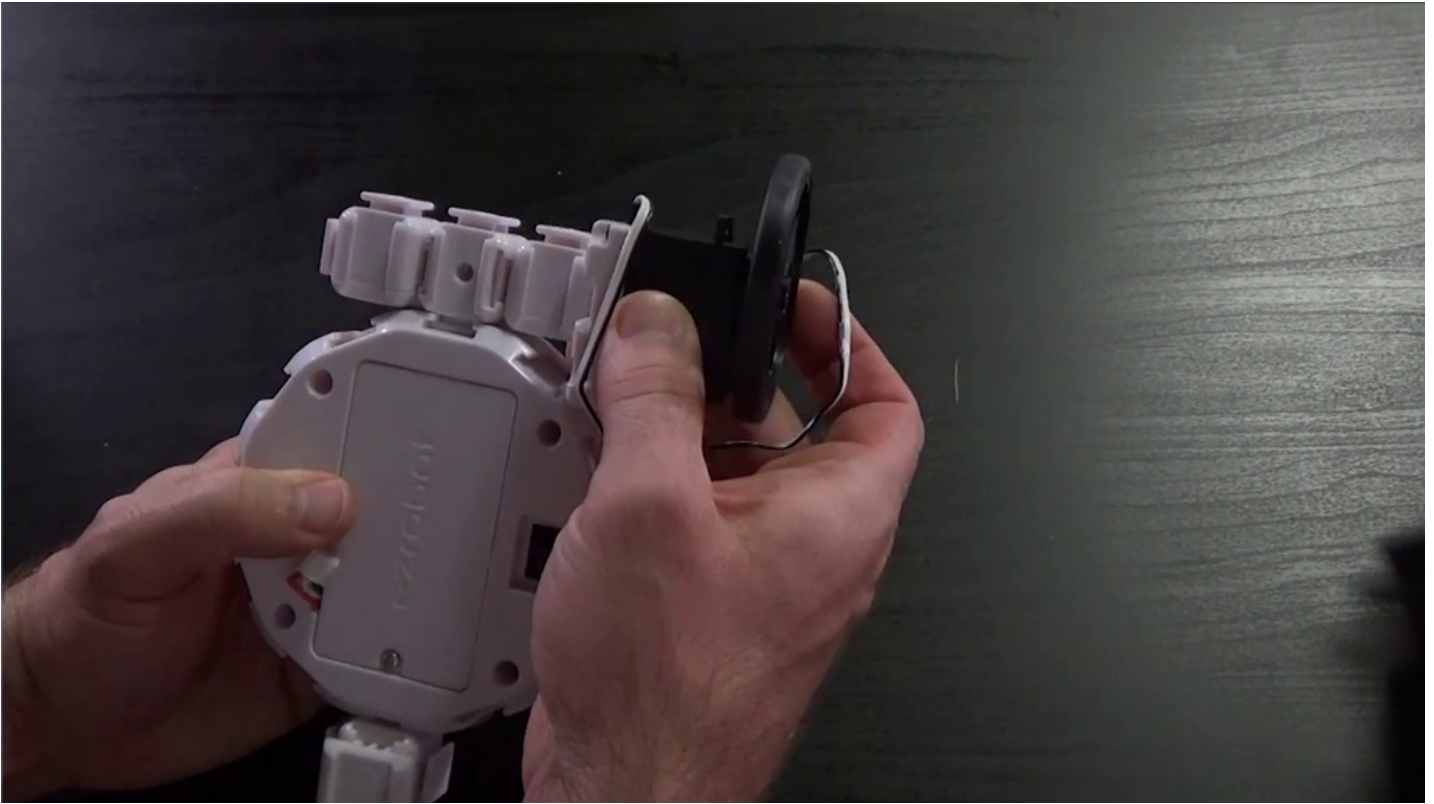
## Step 13

**Clipâ€™nâ€™Play** another **Extension Cube** to each side.



## Step 14

**Clipac™ nâc™ Play** a **Continuous Rotation Servo** to the left **Extension Cube** with the white bracket toward the inside.

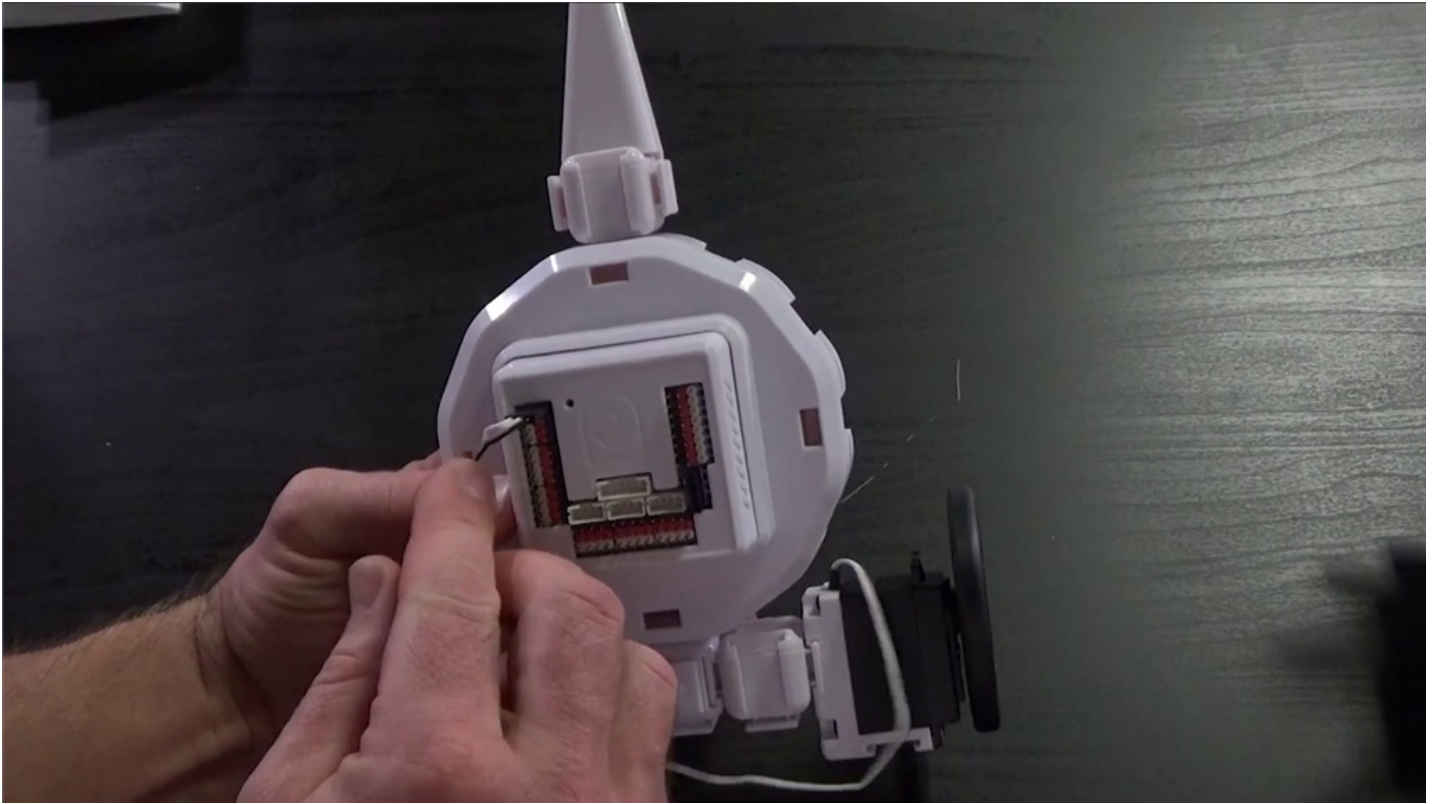






## Step 16

Match the black wire on the cable to the black side of the **EZ-B** port. The cables use a male-to-female connection.



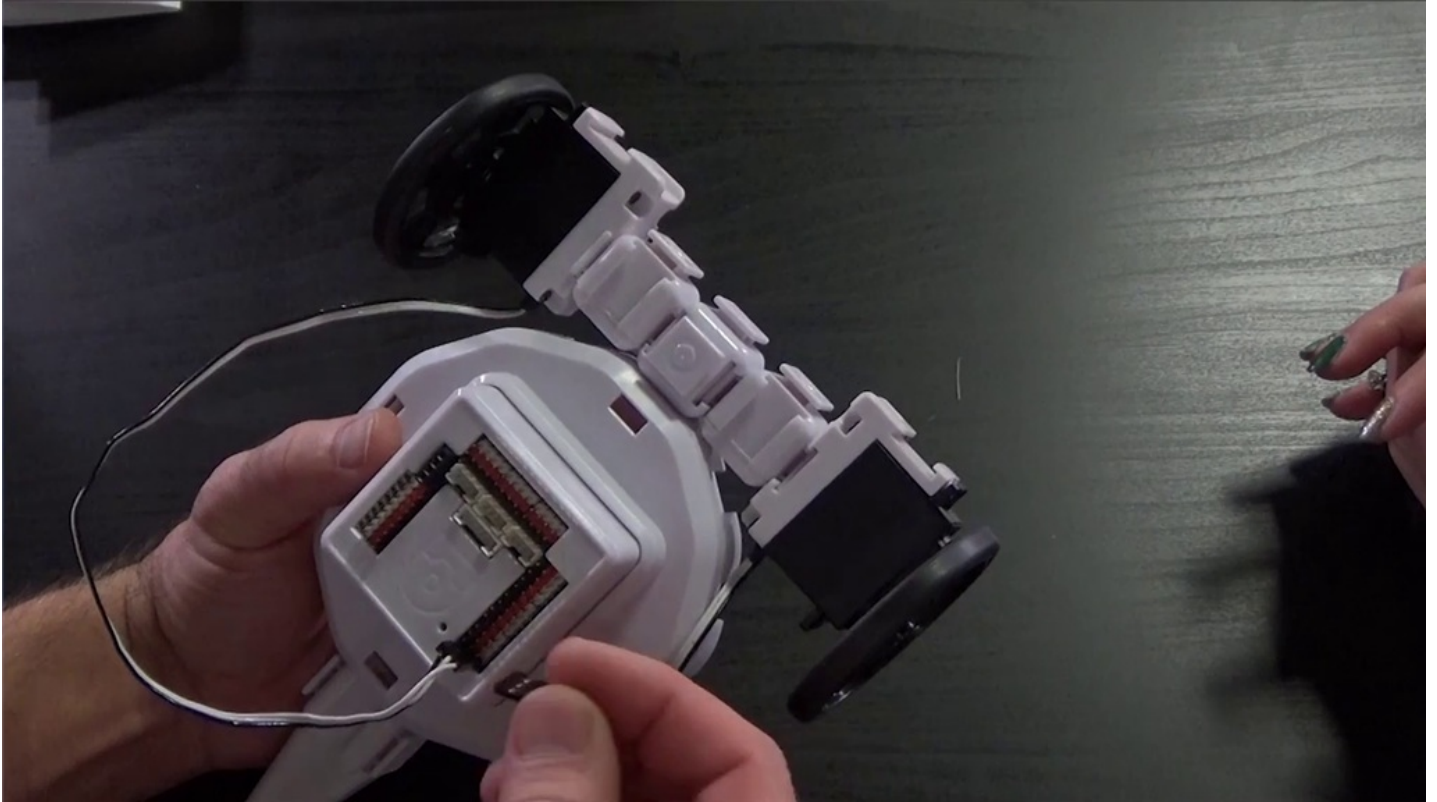
## Step 17

**Clipac™ nãc™ Play** a **Continuous Rotation Servo** to the right **Extension Cube** with the white bracket toward the inside.



## Step 18

Connect the servo to **D1**.



## Step 19

Connect the **Camera** cable to the camera port.





## Step 20

Align the **Dome** with the front of the robot.



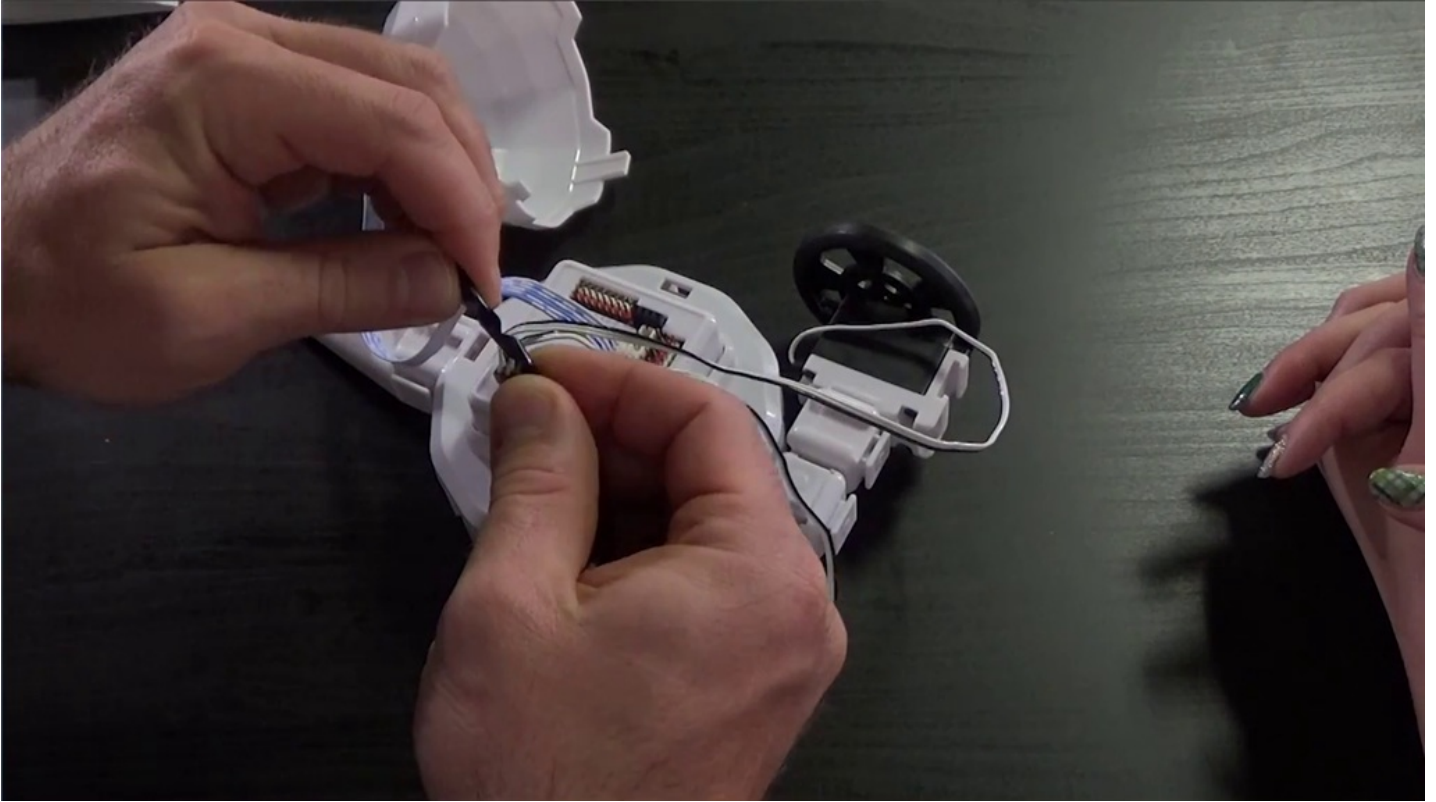
## Step 21

Slide the **Camera** into the top of the **Dome**.



## Step 22

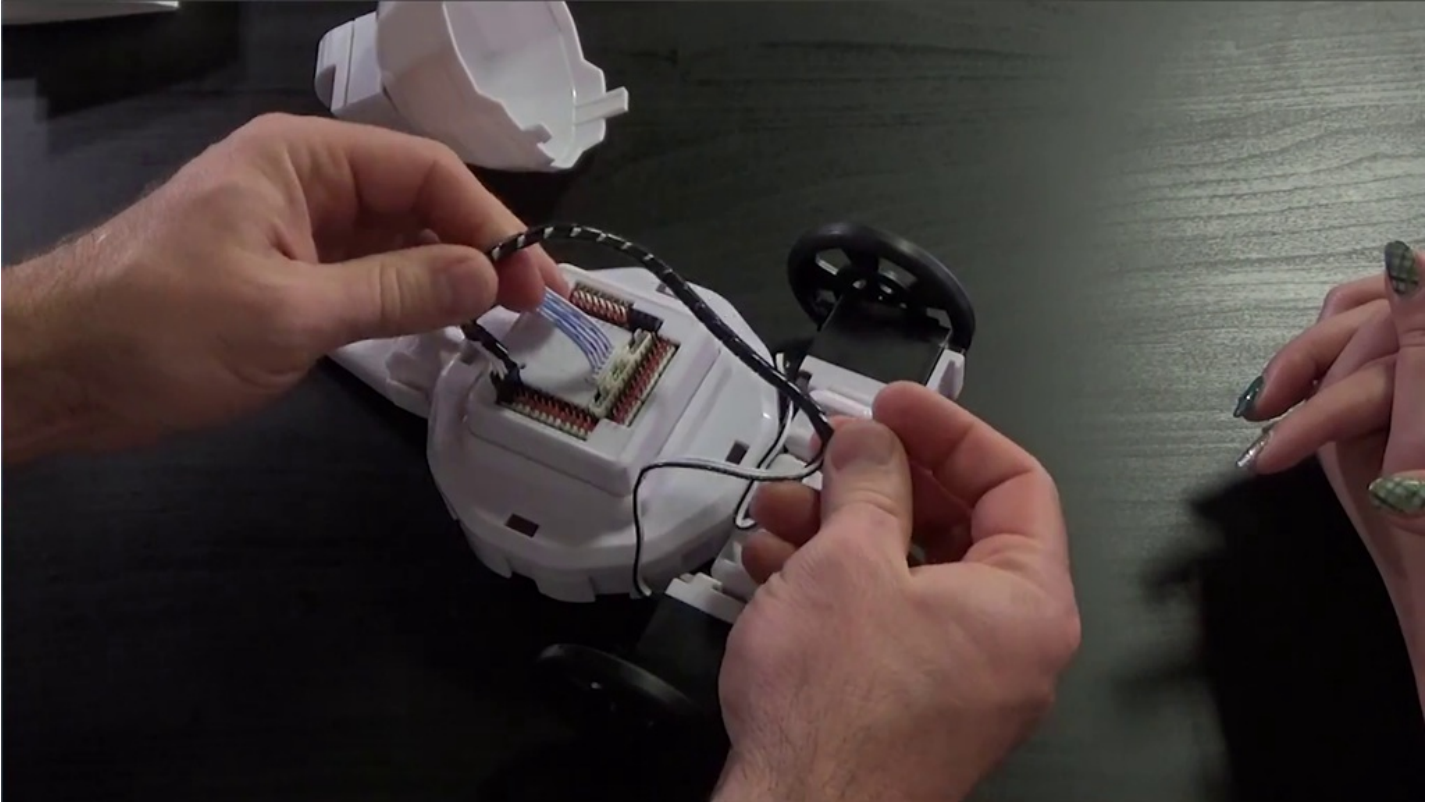
Use **Wire Wraps** to organize cables. Begin wrapping near the **EZ-B** and wrap downwards toward the servos.





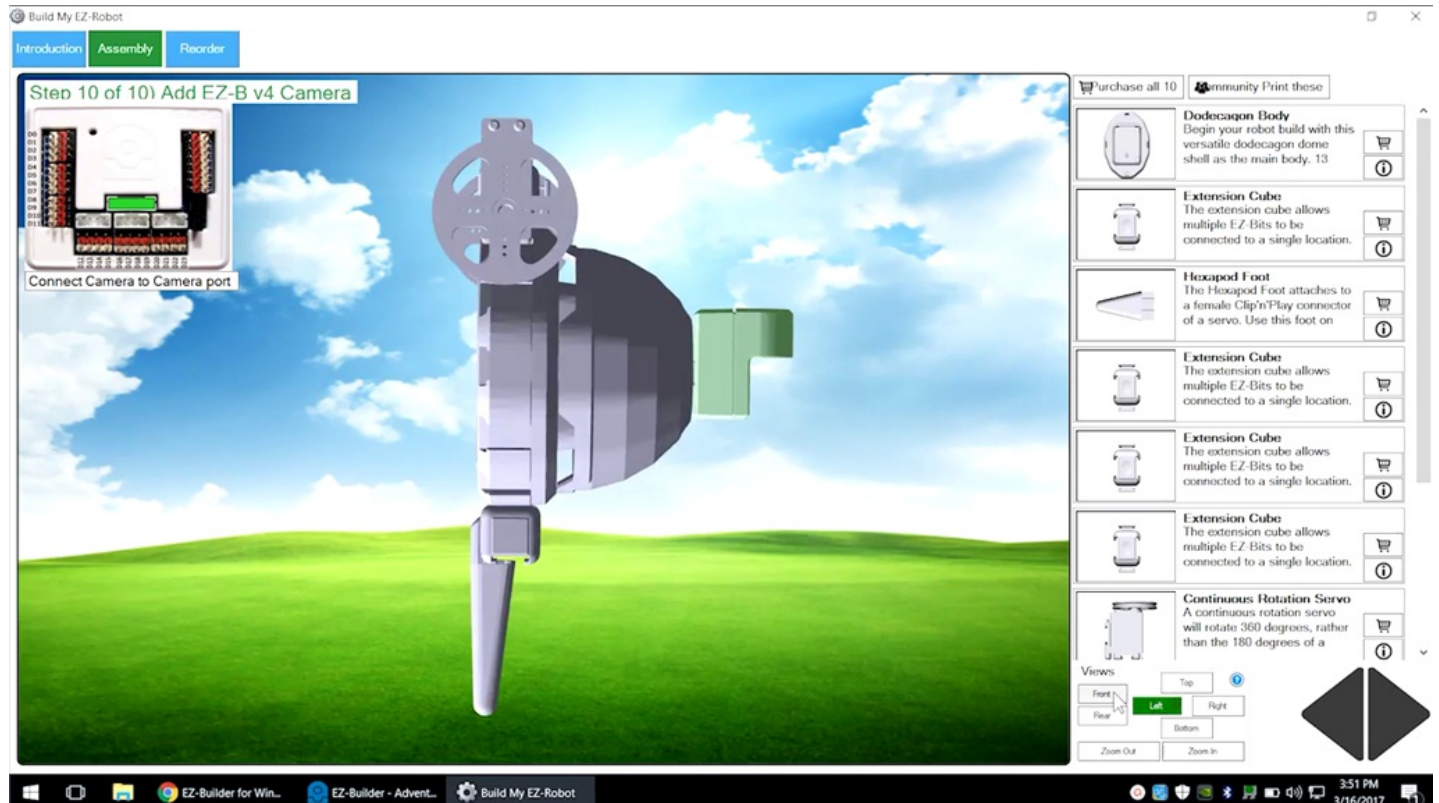
## Step 23

Leave cable slack near servos for full range of motion.



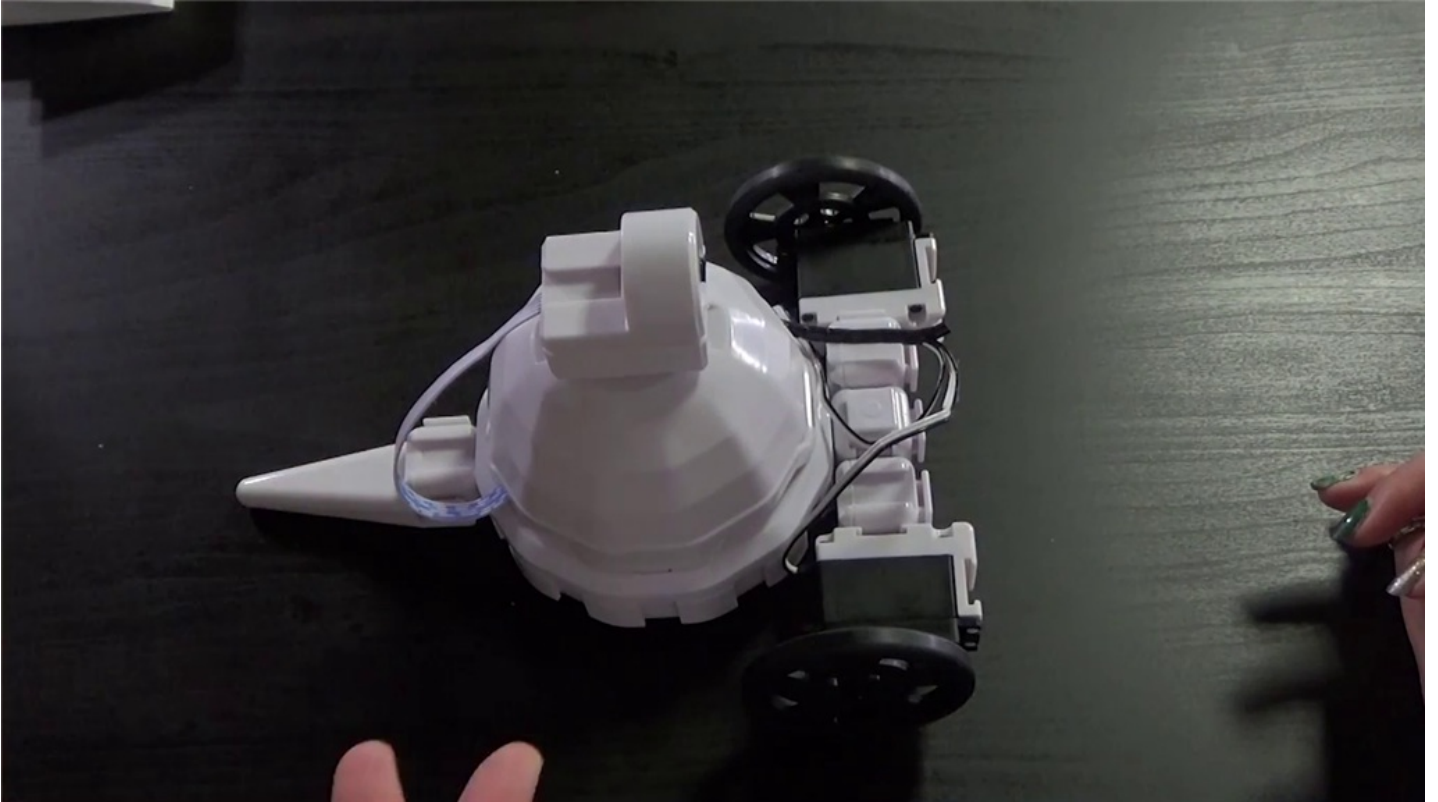
## Step 24

Use the 3D view buttons to check all angles.



## Step 25

Your **Revolution AdventureBot** is now complete!



**Question #1** AdventureBot™'s cables are what type of connection?

**Question #2** What is the label of the first digital port?

**Question #3** Why is wire wrapping a good idea?

View the answers to this quiz at [www.ez-robot.com/Tutorials/Lesson/82](http://www.ez-robot.com/Tutorials/Lesson/82).

Visit [www.TheRobotProgram.com](http://www.TheRobotProgram.com) for more episodes.