

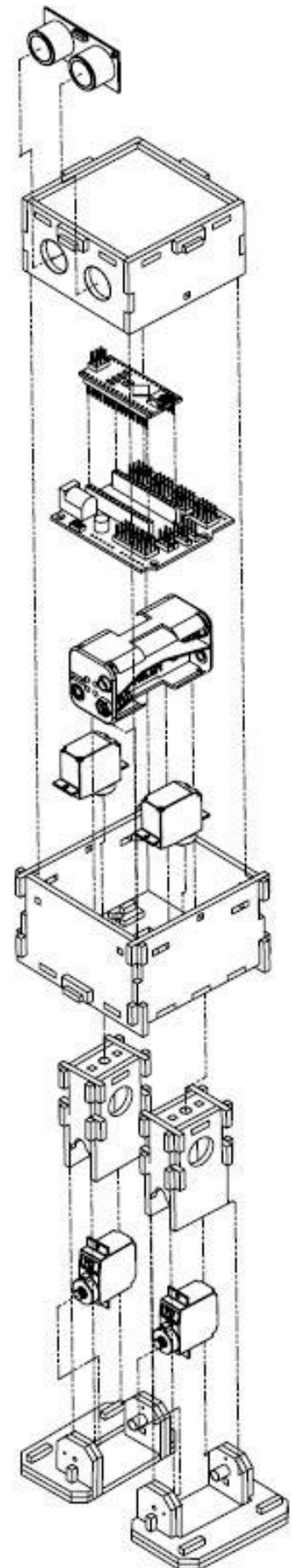
# MIIA ASSEMBLY INSTRUCTIONS

## WELCOME

Congratulations! You are now the proud new owner of your own MiiA robot. These instructions will take you through everything you need to know on how MiiA is put together and what makes her tick. MiiA is built in the form of a 3D puzzle, so the fun begins immediately. The MiiA bot design is based off another great robot called Otto bot (<https://www.ottodiy.com>). So, without further ado, let's jump in!


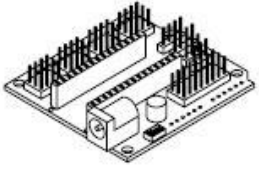
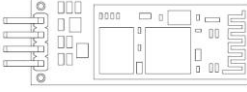
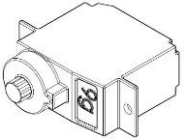
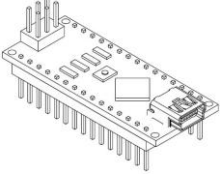
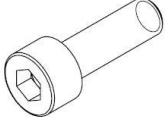


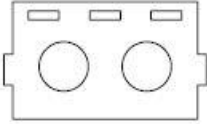
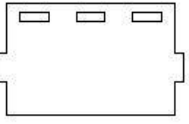
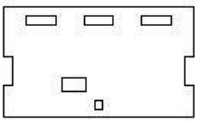
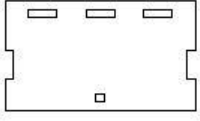
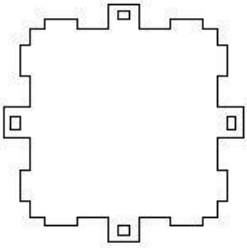
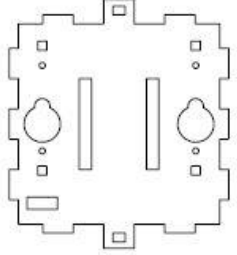
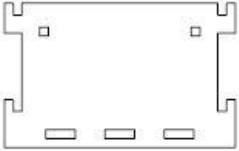
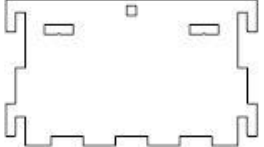


## Contents




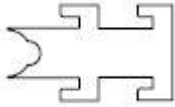
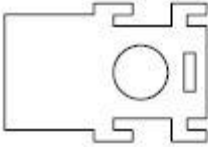
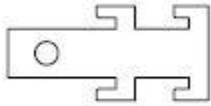




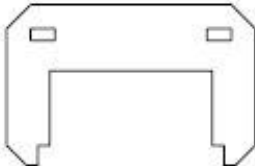
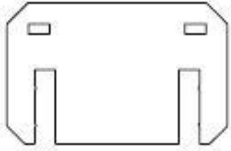



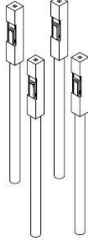
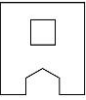
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## What's in the Box

All parts included in the kit are shown in this section.

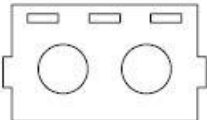
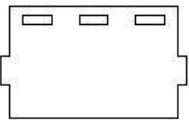
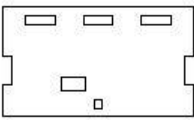
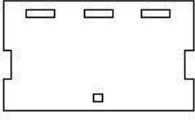

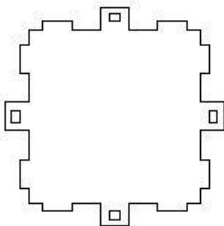
Part	Preview	Part	Preview
<b>Battery holder</b>  (1x)		<b>Arduino shield</b>  (1x)	
<b>HC06 Bluetooth transceiver</b>  (1x)		<b>Servo Motor</b>  (4x)	
<b>Arduino Nano</b>  (1x)		<b>M2 cap screw</b>  (8x)	
<b>Ultrasonic sensor</b>  (1x)		<b>M2 nut</b>  (4x)	
<b>Head – front</b>  (1x)		<b>Head - back</b>  (1x)	
<b>Head - left</b>  (1x)		<b>Head-right</b>  (1x)	
<b>Head - top</b>  (1x)		<b>Body - base</b>  (1x)	
<b>Body - front and back</b>  (2x)		<b>Body - sides</b>  (2x)	
<b>Body - corners</b>  (4x)		<b>Head and body pin</b>  (6x)	

General pin (12x)		Leg - top (2x)	
Leg - bottom plate (2x)		Leg - front (2x)	
Leg - sides (4x)		Leg - back (2x)	
Foot - back (2x)		Foot - back (2x)	
Foot - front (2x)		Foot - front (2x)	
Foot - top (2x)		Foot - base (2x)	
Foot pin (4x)		Foot - axle (2x)	
USB mini cable (1x)		Jumper cables (8x)	
Nut holder (4x)			

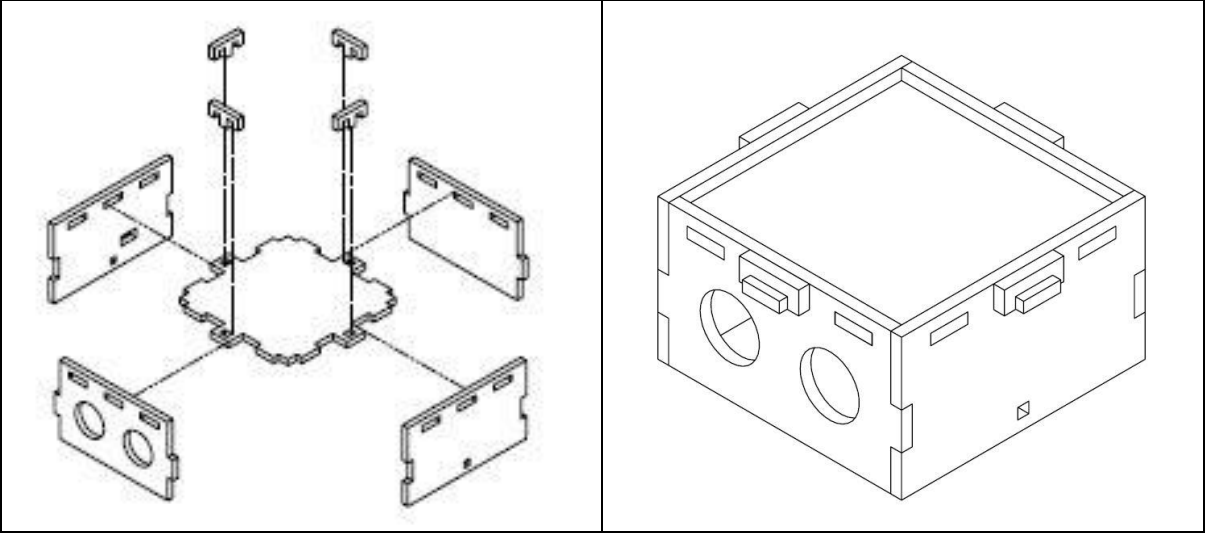
# Putting MiiA Together

This section describes how to assemble the individual parts that make up MiiA.

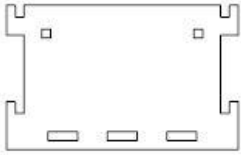
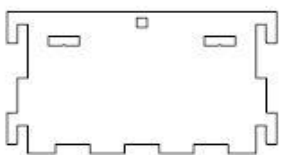
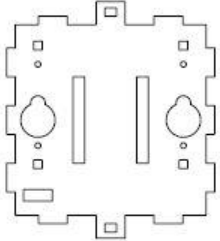




## Head

Part	Preview	Part	Preview
Head – front (1x)		Head - back (1x)	
Head - left (1x)		Head - right (1x)	
Head and body pin (4x)		Head - top (1x)	

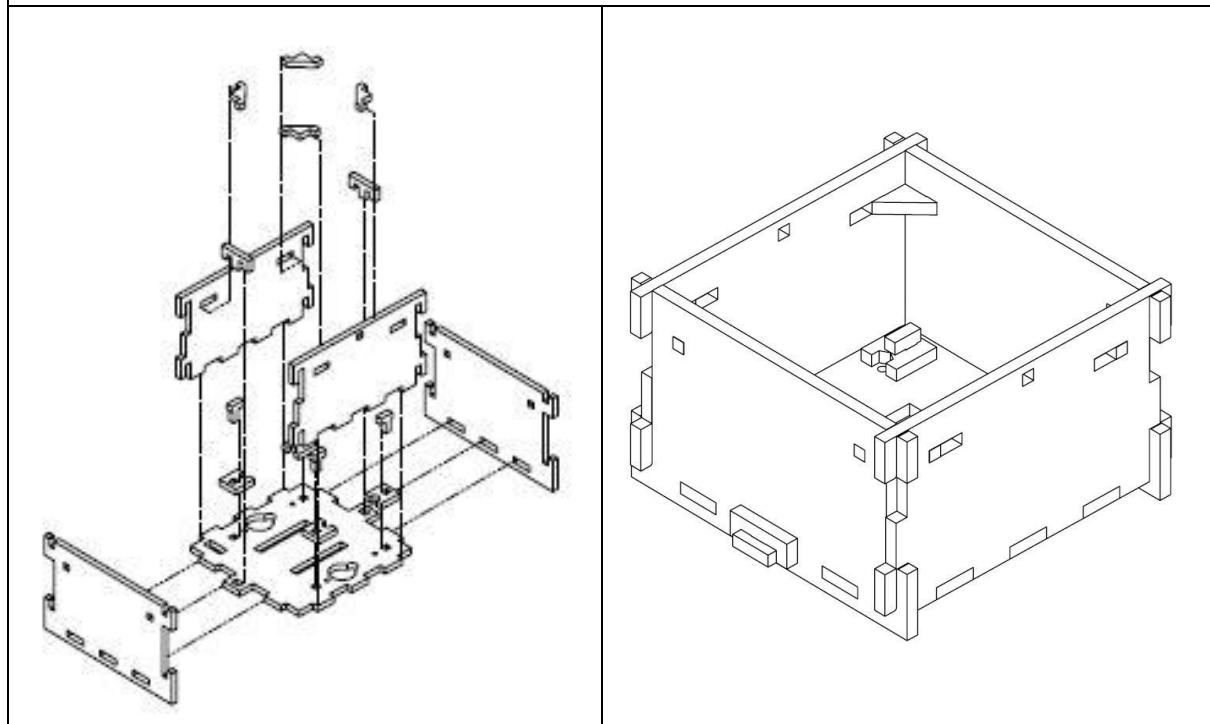
### How to assemble






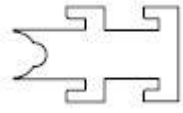
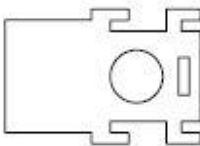
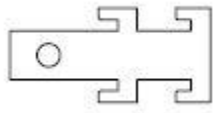
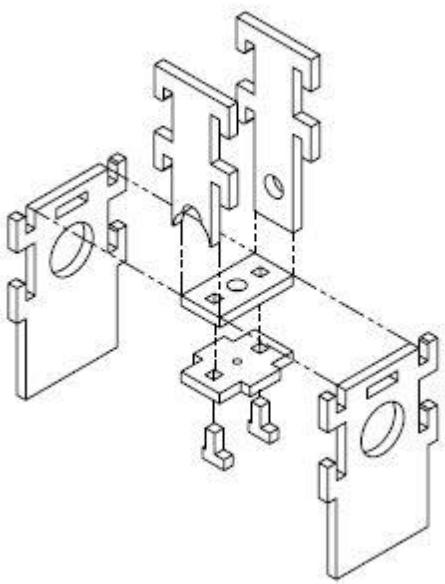
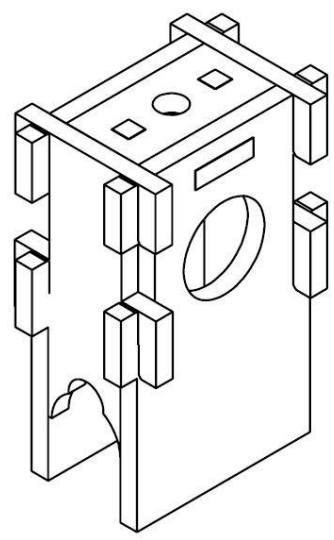
## Body

Part	Preview	Part	Preview
Body - front and back (2x)		Body – sides (2x)	
Body - base (1x)		Head and body pin (2x)	
Body - corners (4x)		Nut holder (4x)	
General pin (4x)			





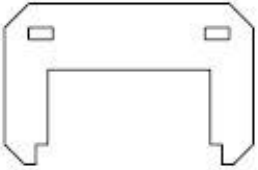
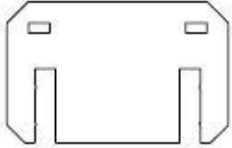



## How to assemble



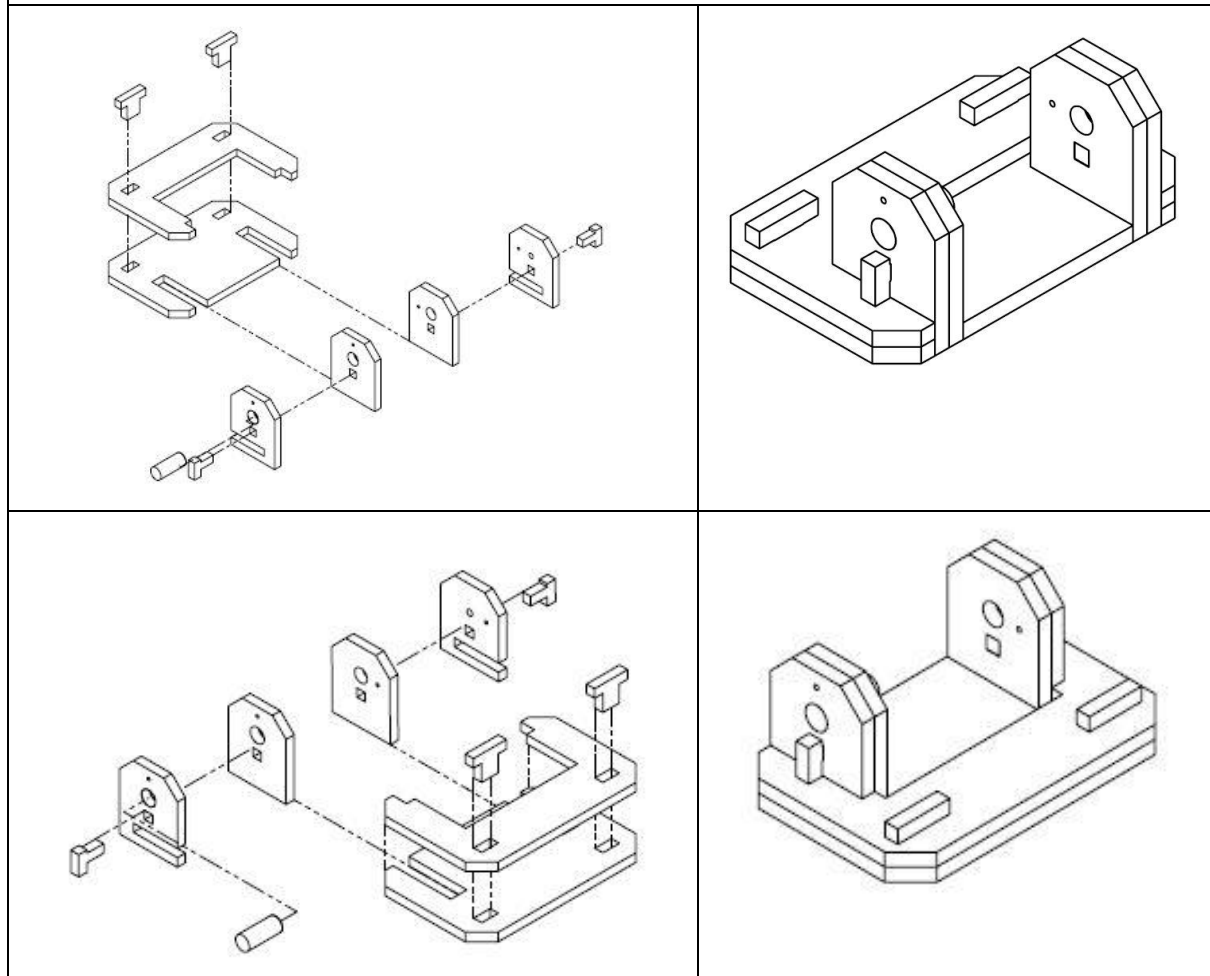
## Legs

Part	Preview	Part	Preview
General pin (4x)		Leg - top (2x)	
Leg - bottom plate (2x)		Leg - front (2x)	
Leg - sides (4x)		Leg - back (2x)	
How to assemble			
			

## Feet

Part	Preview	Part	Preview
Foot - back (2x)		Foot - back (2x)	
Foot - front (2x)		Foot - front (2x)	
Foot - top (2x)		Foot - base (2x)	
Foot pin (4x)		Foot - axle (2x)	
General pin (4x)			

### How to assemble



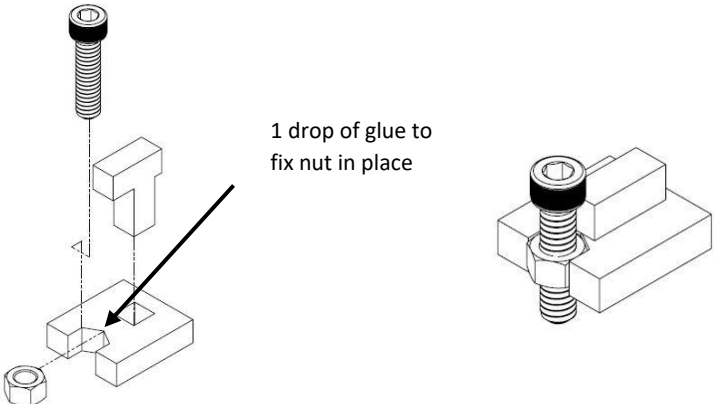


## Motor Calibration

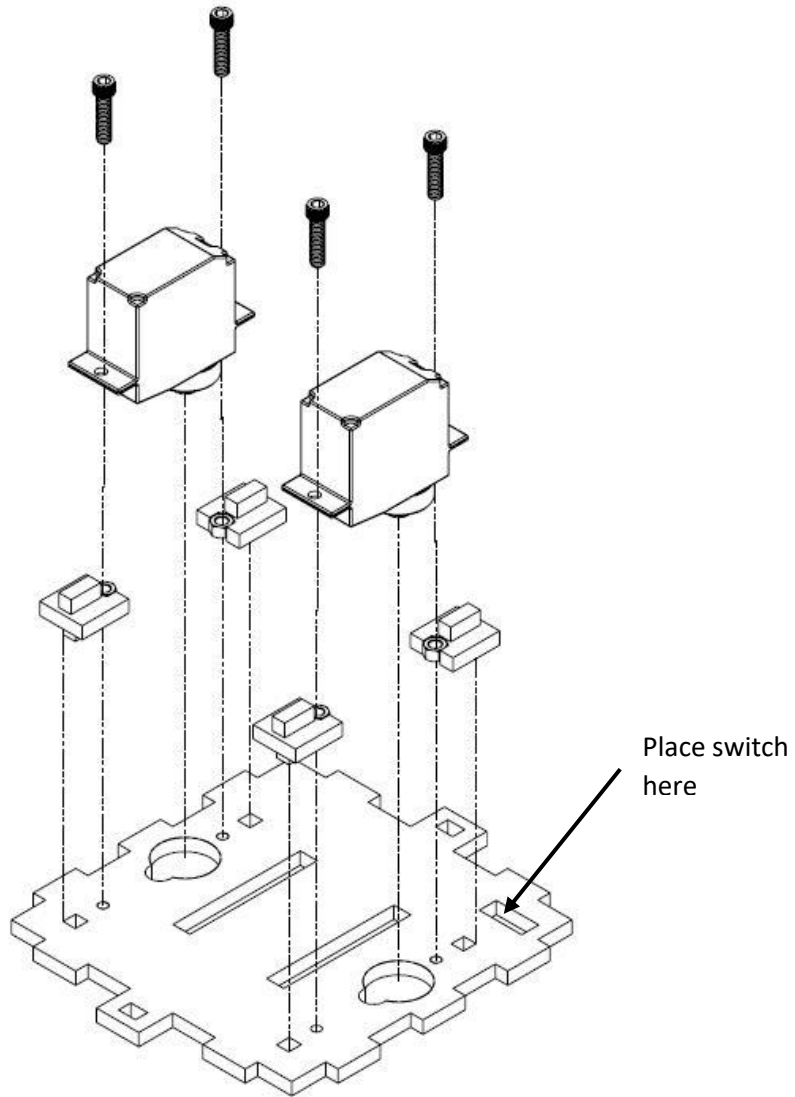
When inserting motors into the robot, please ensure that the servo motors have been set to 90 degrees. Have a look at our calibration video [here](#). You can also find our calibration code [here](#).

## Assembly

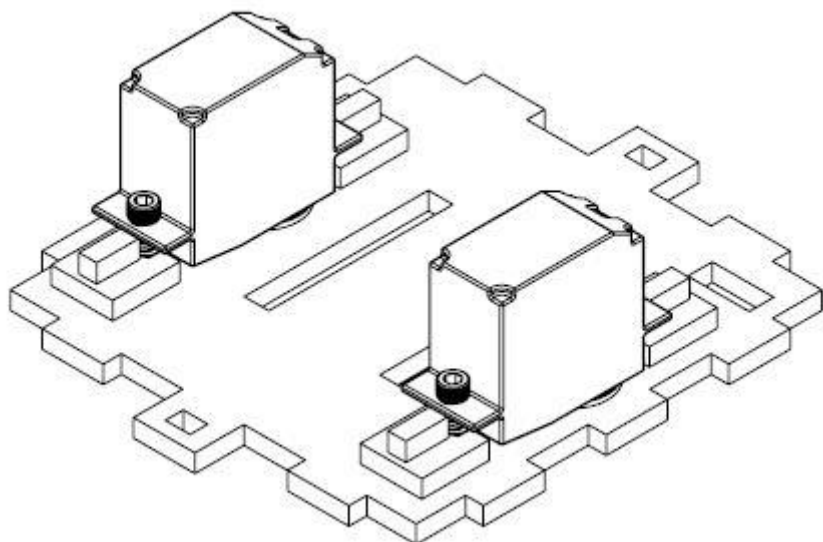
This section shows how to install the motors that make MiiA move.

Description	Assembly Instruction
Nut holder assembly	

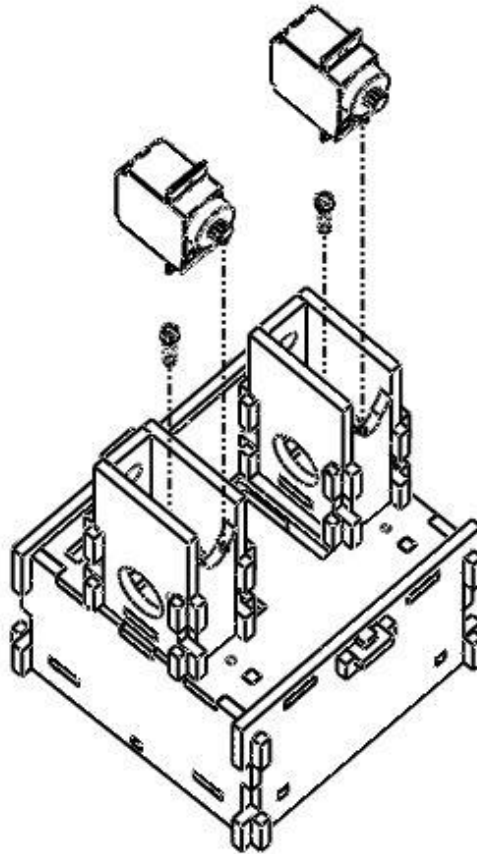
Motor plate assembly



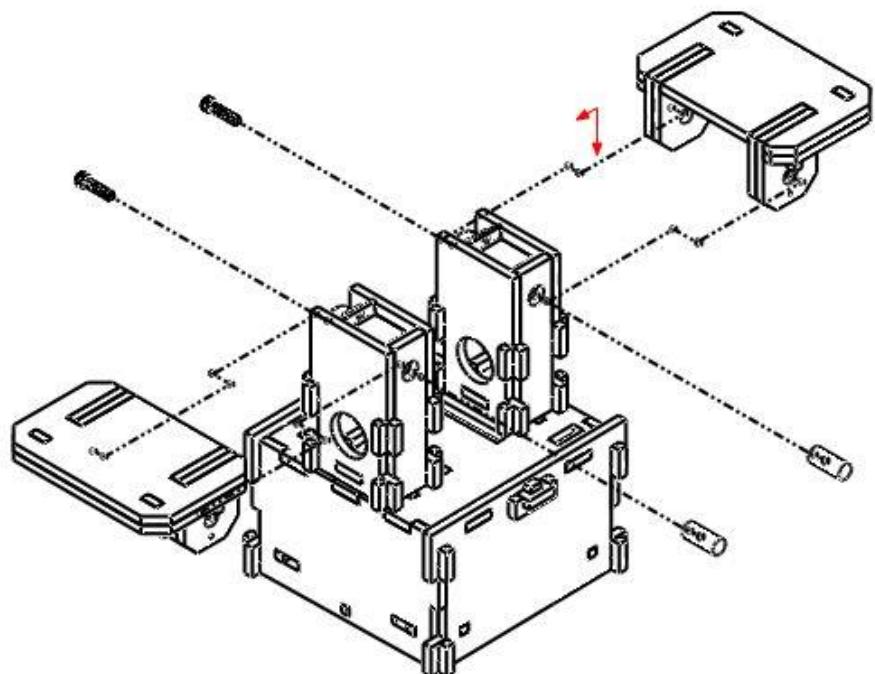
Motor plate assembly



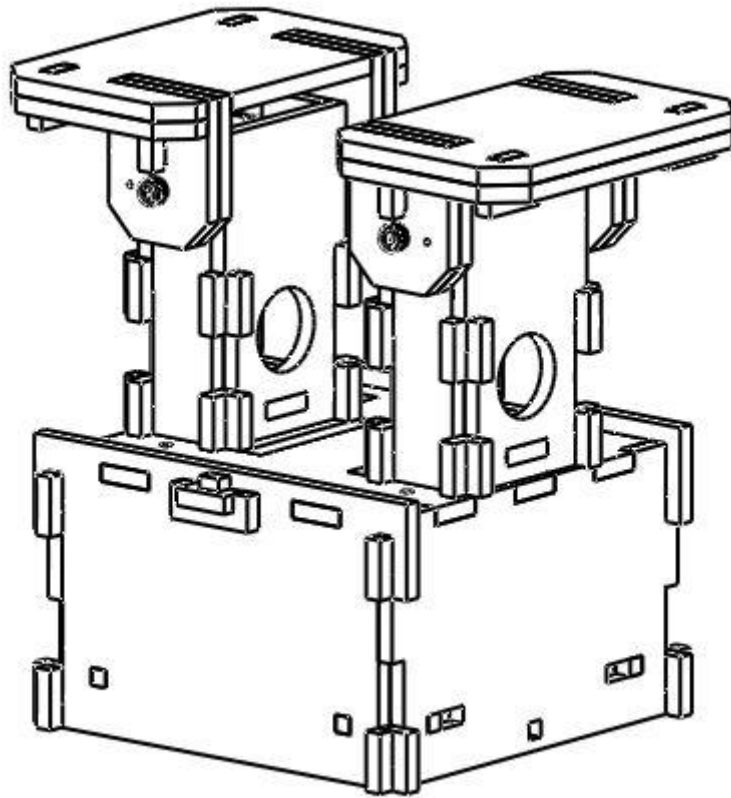
Leg plate assembly



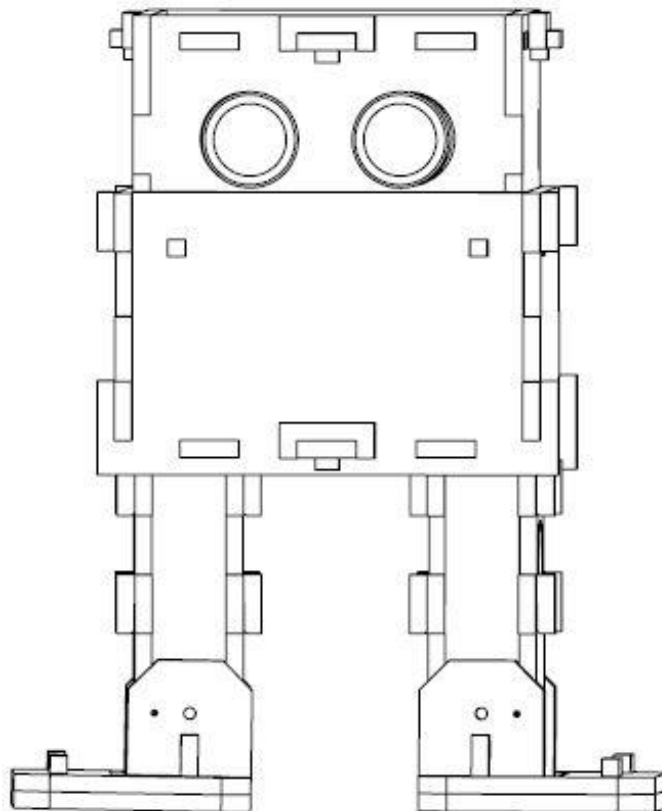
Feet assembly



Complete bottom  
body assembly

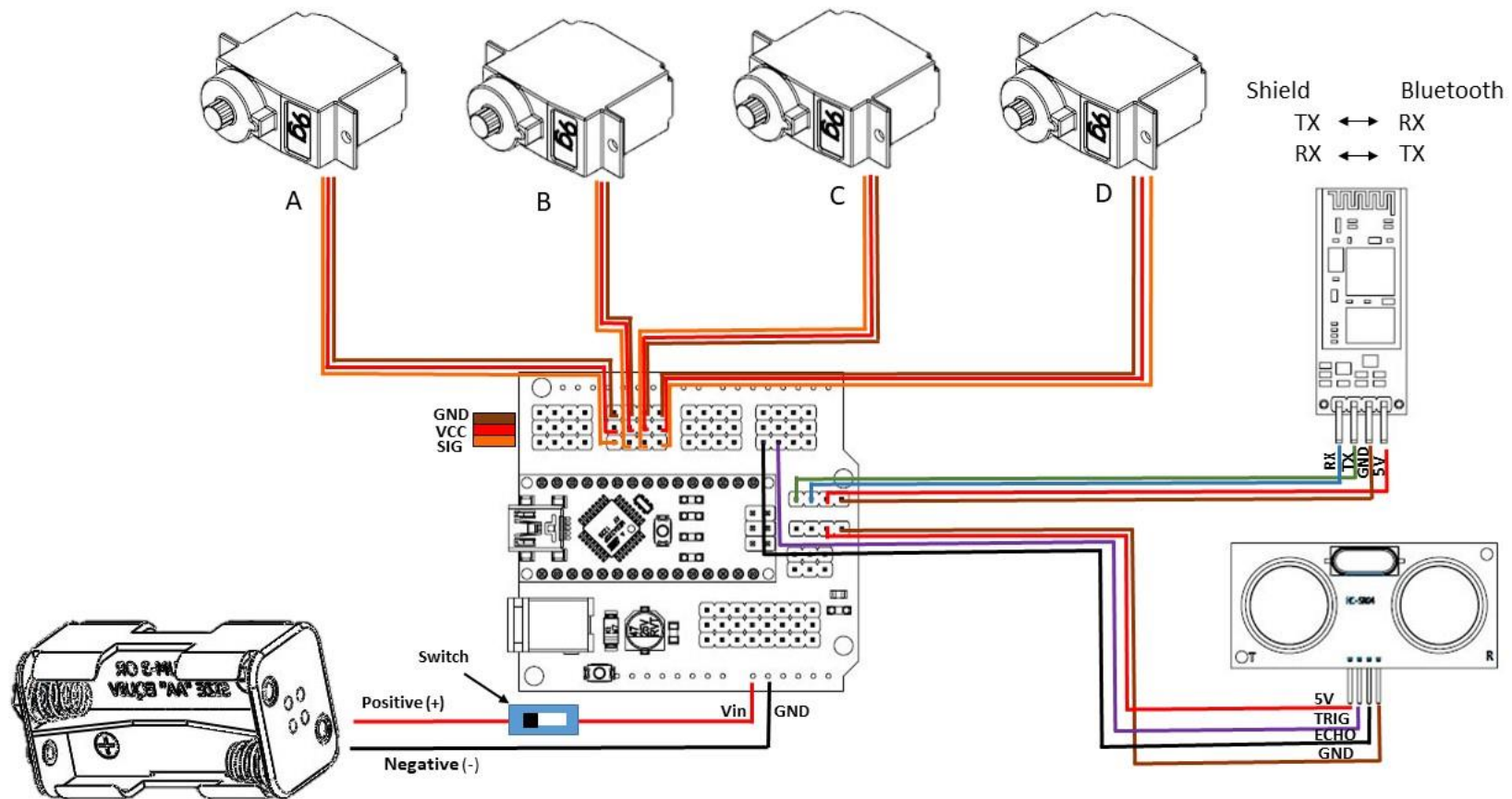


Complete assembly

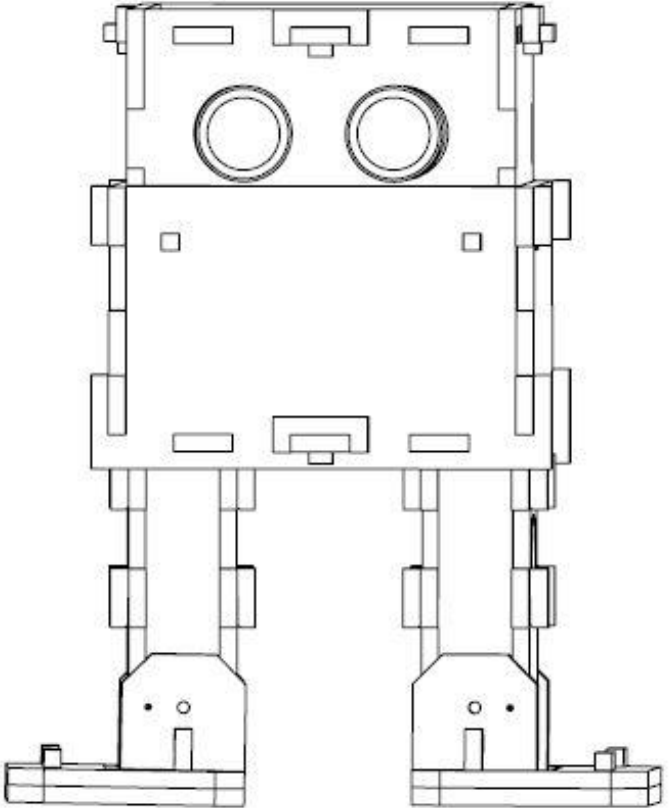
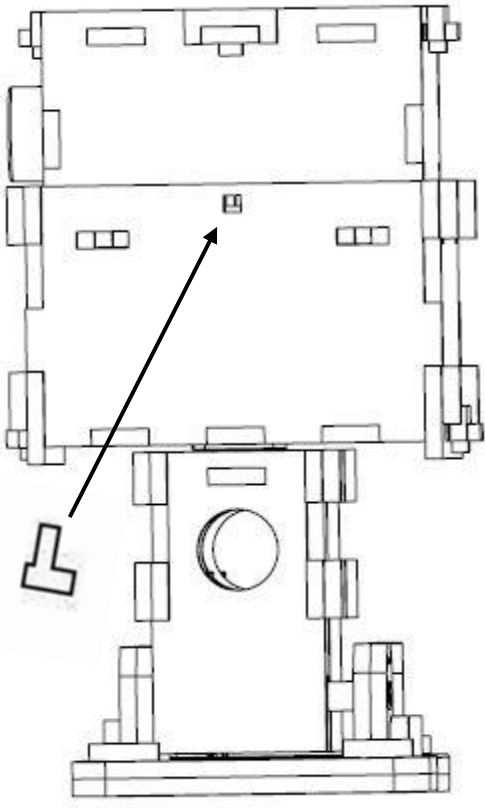
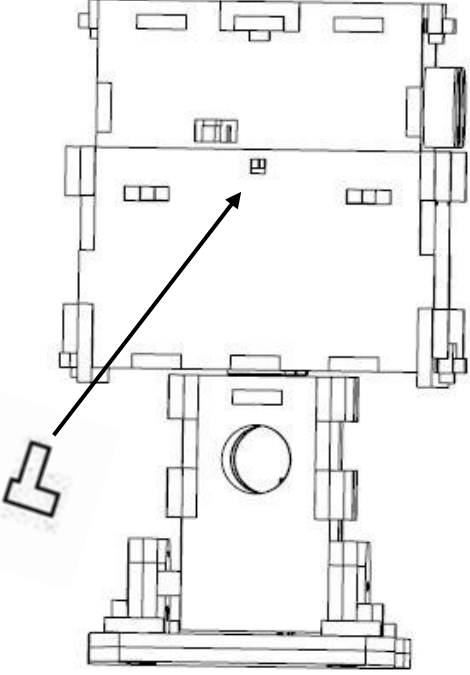
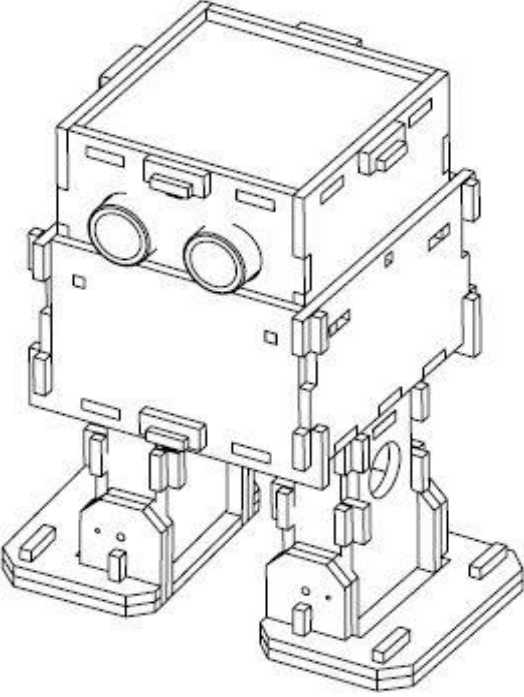


## Electrical Connections

By connecting all the electrical component as shown below, MiiA will be able to be programmed and controlled to move.



## Final Assembly

Front View and Left View	Right View and Isometric View
 <p>The front view shows a symmetrical mechanical assembly. At the top, there are two circular features, possibly ports or sensors, mounted on a rectangular frame. Below this frame are two vertical support structures, each with a circular base. The entire assembly is mounted on a flat base plate. The drawing is a clean line sketch with no shading.</p>	 <p>The right view shows the side profile of the assembly. It highlights the vertical support structure on the right side, which has a circular feature. An arrow points from the top of this support structure towards the top of the main frame. The drawing is a clean line sketch with no shading.</p>
 <p>The left view shows the side profile of the assembly from the opposite side. It highlights the vertical support structure on the left side, which has a circular feature. An arrow points from the top of this support structure towards the top of the main frame. The drawing is a clean line sketch with no shading.</p>	 <p>The isometric view provides a 3D perspective of the entire assembly. It shows the rectangular frame at the top, the two vertical support structures, and the base plate. The circular features are clearly visible on the front and side faces. The drawing is a clean line sketch with no shading.</p>

Well Done! MiiA is now complete and ready to be programmed.

To start your robotics journey please go to our [website](#) for instructions on getting started with programming her.

If you are having any issues with the kits, please do not hesitate to contact us at [info@rd-9.co.za](mailto:info@rd-9.co.za)

