

LEGO WeDo 2.0 Workshop

Task: Use LEGO to build Milo the Science Rover, then program him to move around.

Setup Instructions

1. On your iPad, make sure that Bluetooth is turned on – you'll need this to connect to the robot you're going to build!

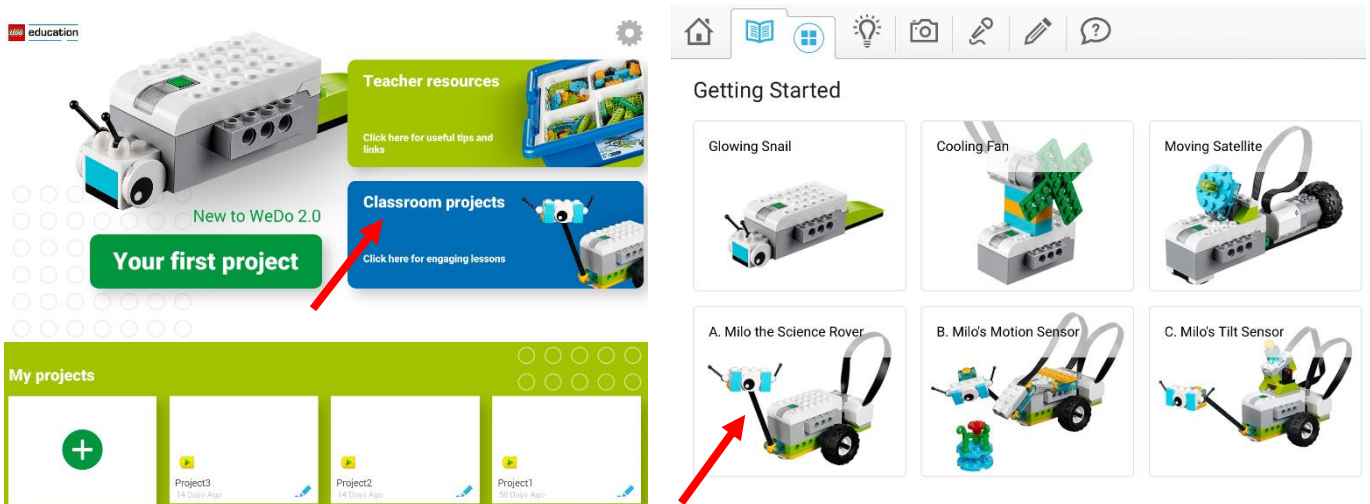



Note: You can also turn on Bluetooth in *Settings*.

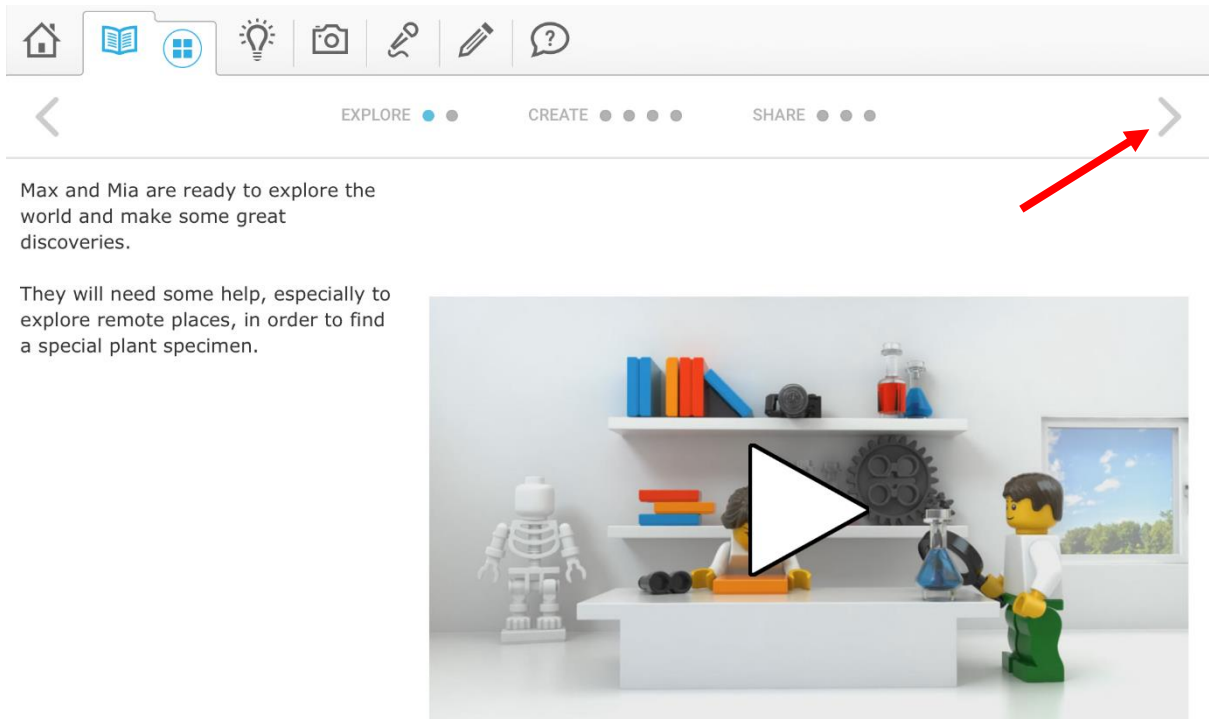
2. Open the **WeDo 2.0** app on your iPad.



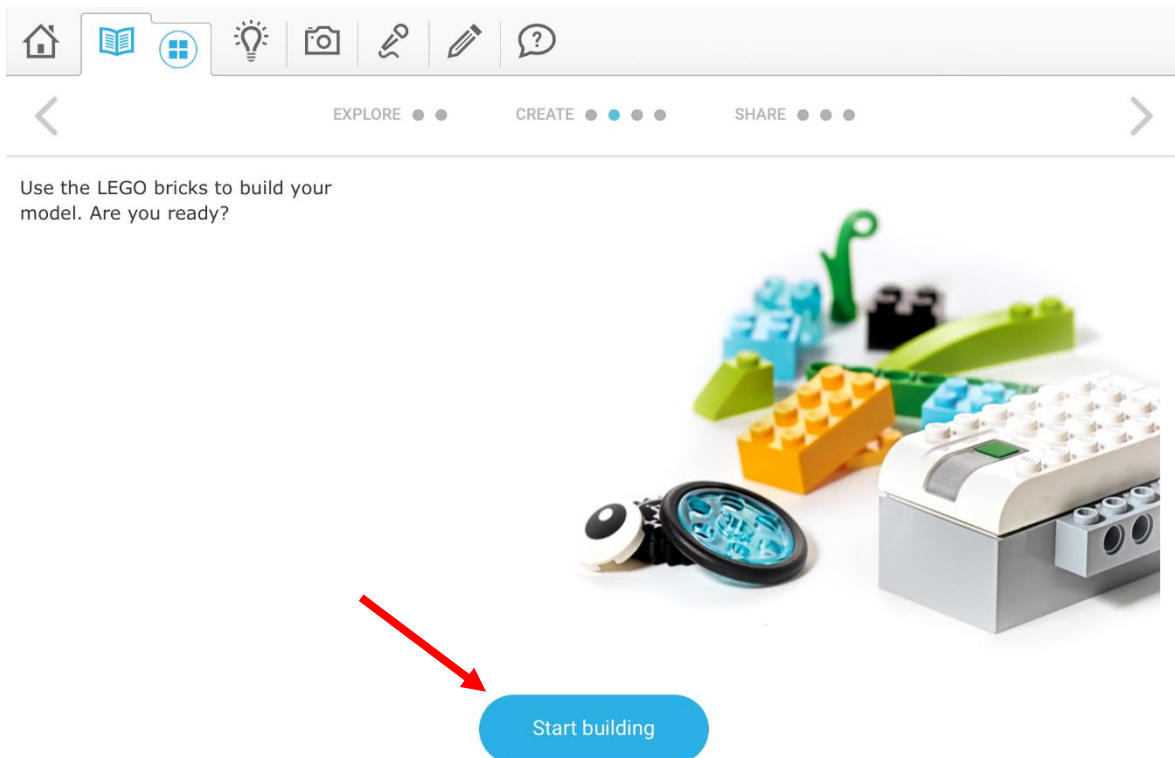
3. Tap **Classroom Projects** and select **Milo the Science Rover**.



4. Tap  and read the introduction if you want to. Use the arrow in the top-right corner to continue through the pages.

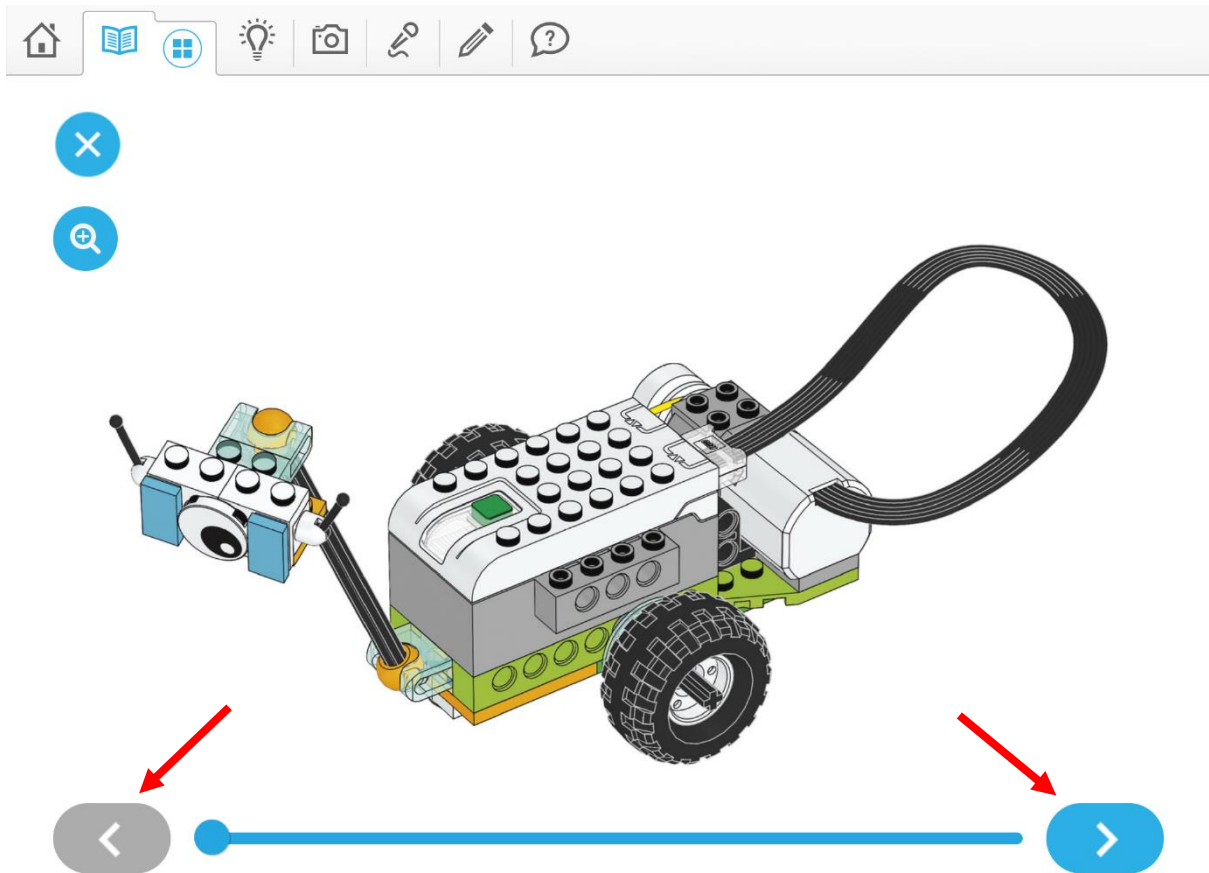



5. Once you get to a page that says **Start building**, press that button to start building Milo!



Workshop Instructions

1. You will now see a picture of what Milo will look like when finished. Use the arrows to go through the instructions for building Milo.

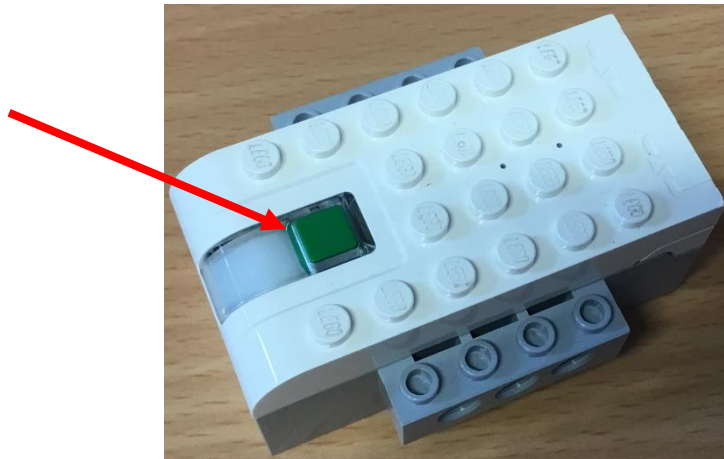


2. Once you've finished building Milo, you'll see "Good job!" on the screen. Press the  arrow again and you will be taken to the screen below. Press **Connect**.

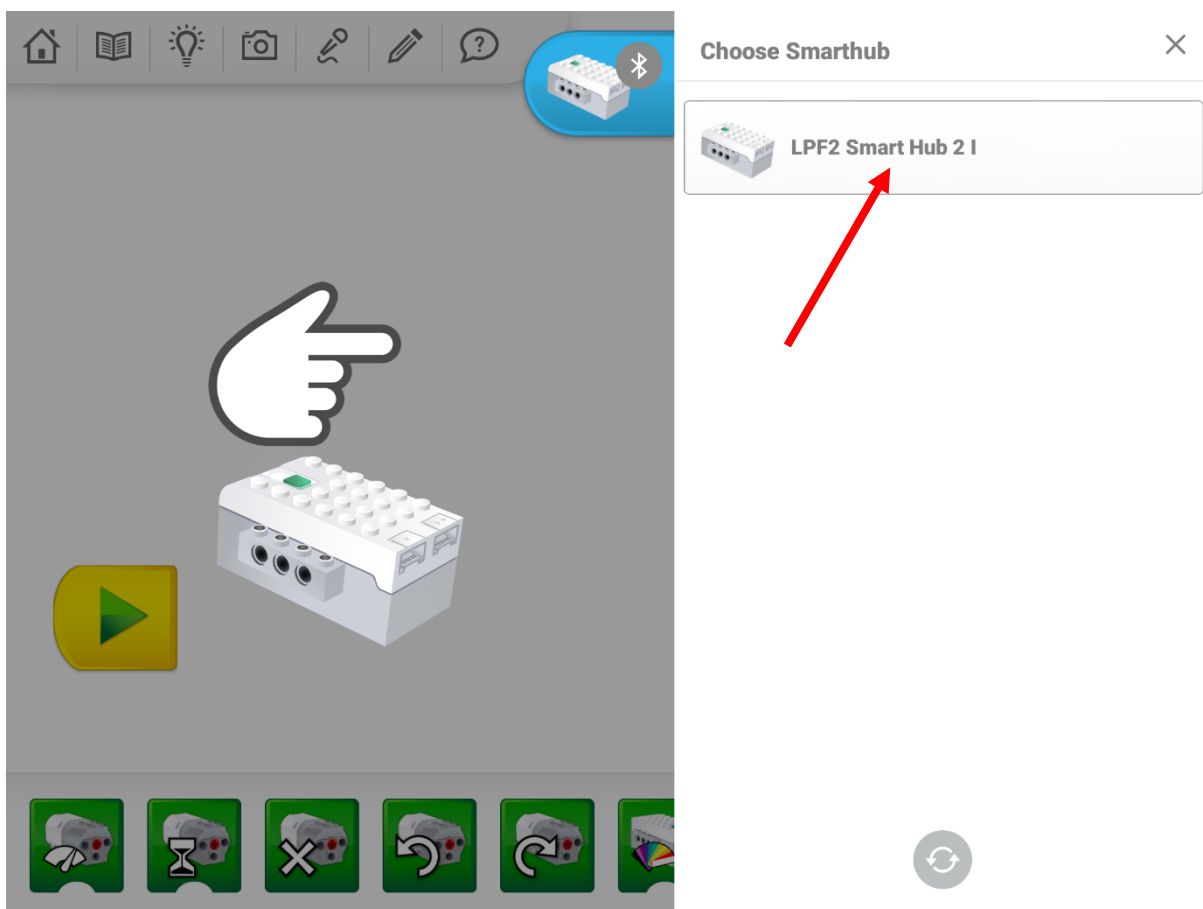
Connect your LEGO® model to your device.



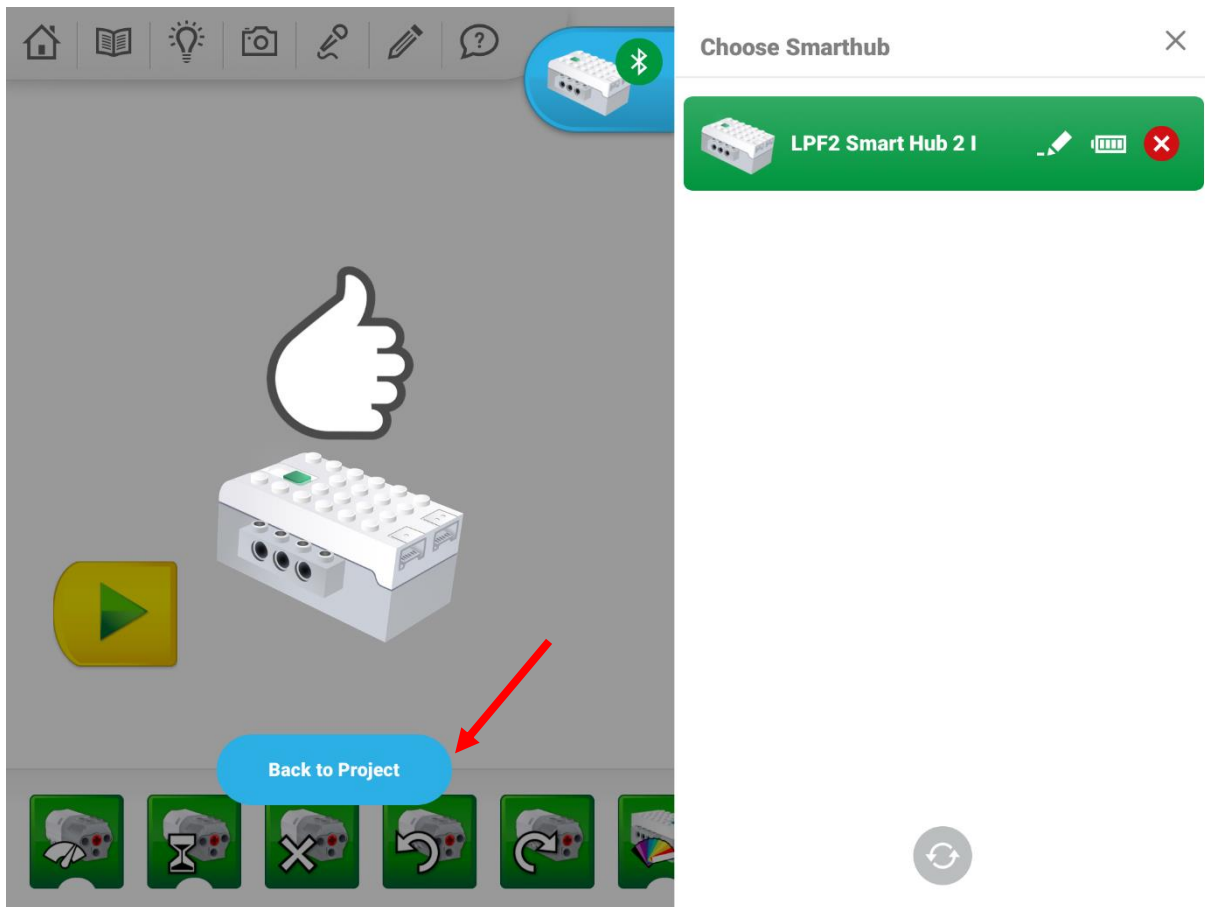
3. On the Milo model you've just built, press the green button on the large white and grey brick. A light should start flashing.



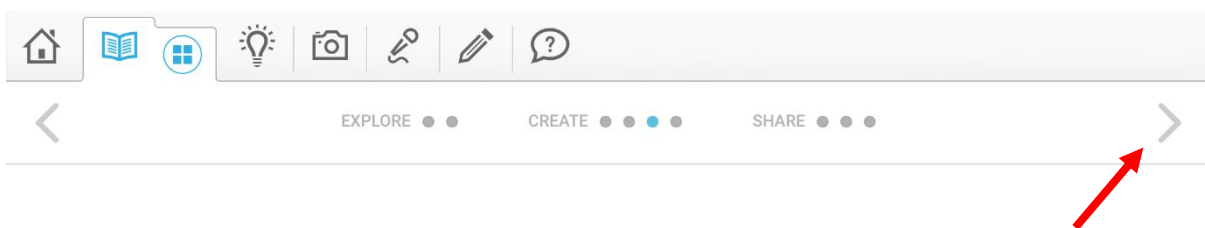
4. While the light is flashing, you will see a "Smarthub" appear on the right of the screen on the iPad. Tap this to connect – the light should now stop flashing and stay lit up.



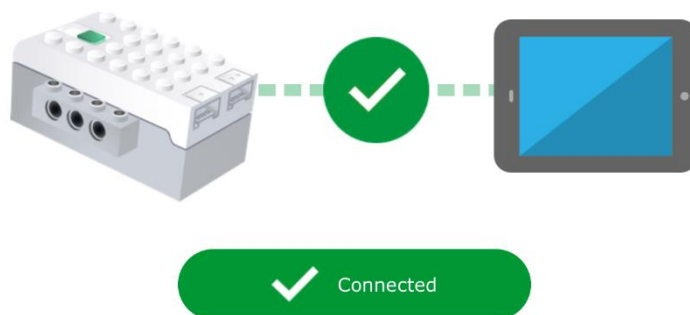
5. Tap **Back to Project**.



6. Tap the arrow in the top-right corner.



Connect your LEGO® model to your device.



7. Now it's time to do some programming! On the screen, you'll see an example of some code that will make Milo move. Drag out the blocks at the bottom of the screen to copy this code.

The screenshot shows the Scratch programming environment. At the top, there is a navigation bar with icons for home, books, a grid, a lightbulb, a camera, a pencil, and a question mark. Below this is a progress bar with 'EXPLORE', 'CREATE', and 'SHARE' sections. The main workspace contains the text 'Program Milo to move forward.' and a code block consisting of a yellow 'when green flag clicked' block followed by four green 'move' blocks: 'move 8 steps', 'turn right 90 degrees', 'wait 2 seconds', and 'say for 2 seconds'. A red arrow points from the 'when green flag clicked' block to a callout box that says 'Copy this code to make Milo move!'. Below this, another red arrow points from a callout box that says 'Drag out these blocks to make your code!' to a yellow 'when green flag clicked' block in the palette. The palette at the bottom shows various blocks: 'move', 'wait', 'say', 'turn', 'repeat', 'when green flag clicked', 'when clicked', 'play sound', 'say for 2 seconds', and 'say for 2 seconds'. The 'when green flag clicked' block is highlighted.

8. Once you've copied the code, press the  button to try it, and see if Milo moves! If he doesn't, try checking your code, and make sure Milo is still connected to the iPad.

9. Once you've made Milo move, try seeing what some of the other blocks do! You can change the speed, the colour of the light and add sound effects!