

# SPIKE 2 VS. SPIKE 3 AND DOWNGRADING THE HUB

BY SANJAY AND ARVIND SESHAN

This lesson uses SPIKE 3 software

# LESSON OBJECTIVES

- Learn how to downgrade your hub back to SPIKE 2 (Legacy) if needed

# HOW TO DOWNGRADE YOUR HUB

**STEP 1: Follow the instructions **CAREFULLY** in the Downgrade tool:**

<https://spikelegacy.legoeducation.com/hubdowngrade/>

**STEP 2: Go back to or Install the SPIKE App 2, now called SPIKE Legacy App.**

**STEP 3: Open SPIKE 2 (LEGACY) and Update the Hub as requested in the pop-up**

Your hub will now be a SPIKE 2 Hub.

Read about differences between SPIKE 2 and SPIKE 3 here:

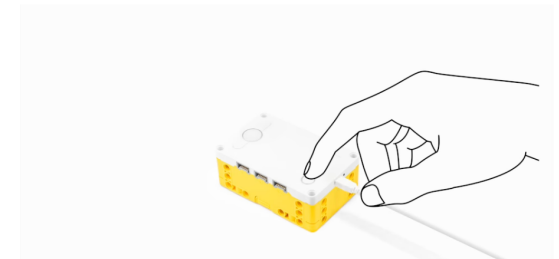
<https://legoeducation.atlassian.net/servicedesk/customer/portal/3/article/36817141835>

## Connect your Hub in Update Mode

1. Make sure the Hub is turned off.
2. Hold down the Connection Button and plug in the USB cable.
3. Keep holding the Connection Button until the Connection LED start blinking in multiple colors.
4. Press the "Open Connection Window" button below and select the hub in the device list

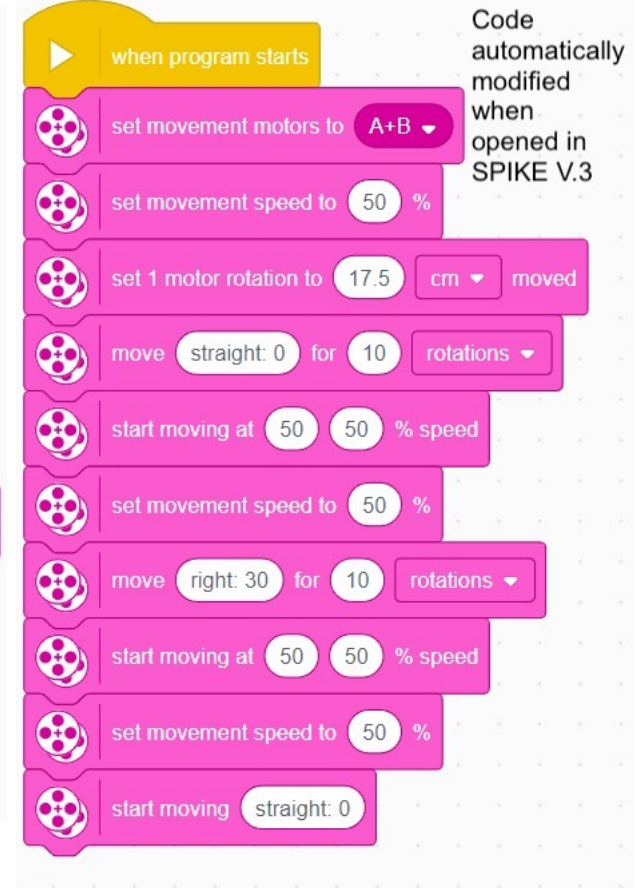
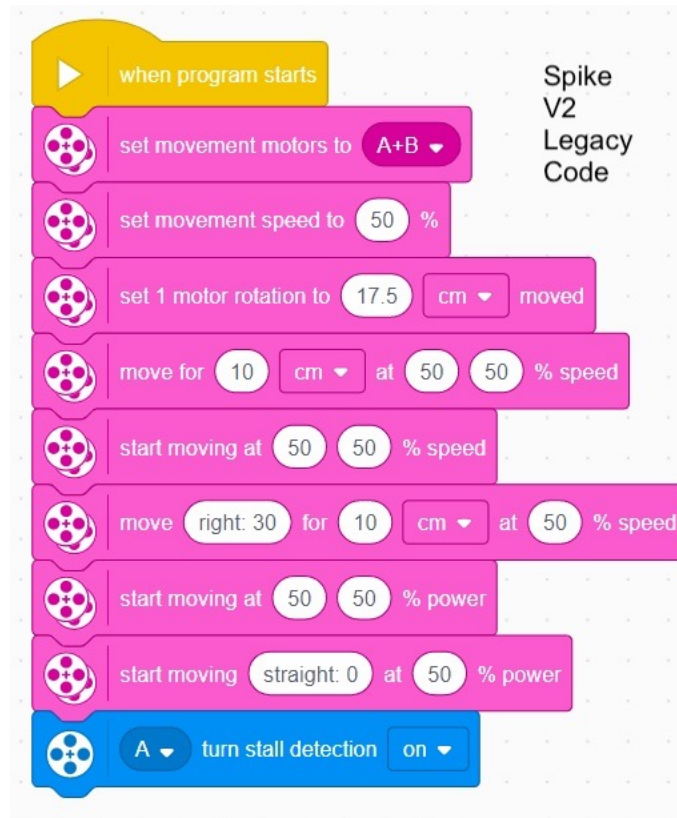


Open Connection Window



# SPIKE 2 PROGRAMS CAN OPEN IN SPIKE 3

- The Release Notes for SPIKE 3 indicate that you can open your SPIKE 2 (Legacy) code in the SPIKE 3 App.
- Note that if you do try to open a SPIKE 2 Legacy project, it does show a pop-up saying that the code will work differently.
- Code blocks get changed. Some blocks are removed and some are replaced with alternative blocks that may or may not act the same way as the original code.



**Pay close attention to changes made to your code!!!**

# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3

## SPIKE 3 (3.2.0)

Block	Synchronization	Speed Control	Stall Detection
	✓	✓	Permanently Off
	✗	✓	Permanently Off
	Block no longer exists		
	✗	✓	Permanently On
	✗	✗	Permanently On

3

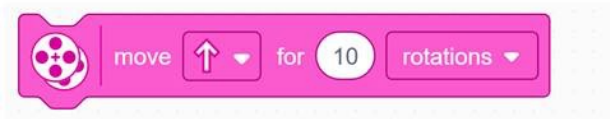
# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3

## SPIKE Legacy (2.0.9)

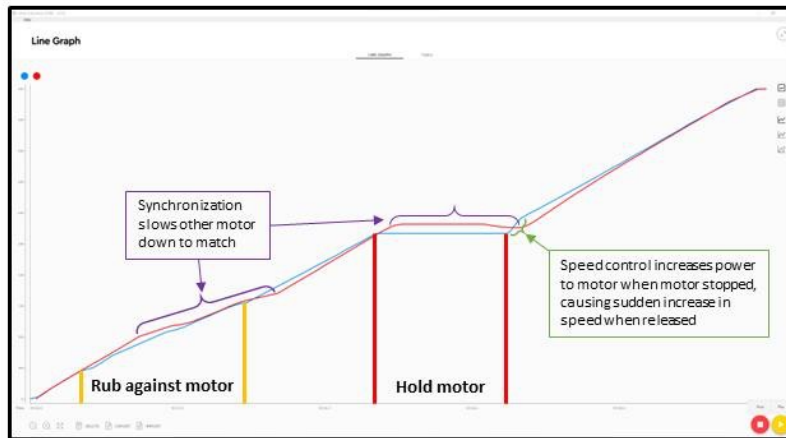
Block	Synchronization	Speed Control	Stall Detection
	✓	✓	Permanently On
	✓	✓	Permanently On
	✗	✗	Permanently On
	✗	✓	Can be enabled/disabled
	✗	✓	Can be enabled/disabled
	✗	✗	Can be enabled/disabled
	✗	✗	Can be enabled/disabled

2

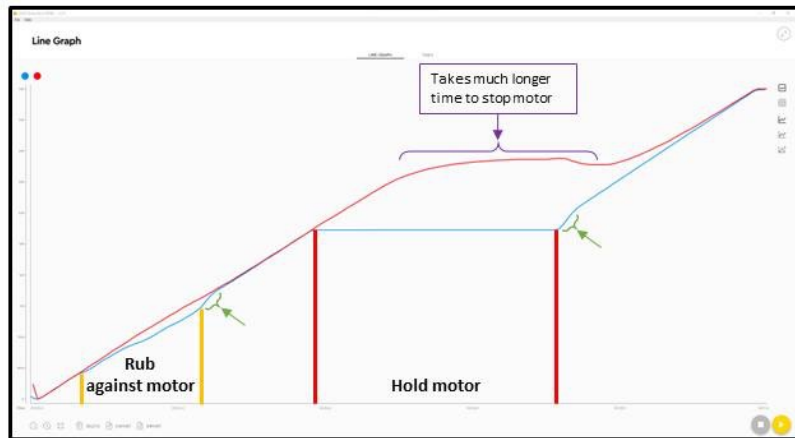
# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3



**SPIKE Legacy (2.0.9)**

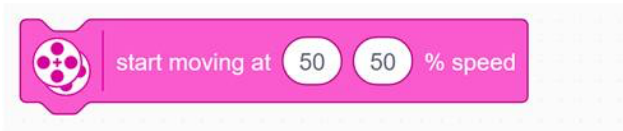


**SPIKE 3 (3.2.0)**

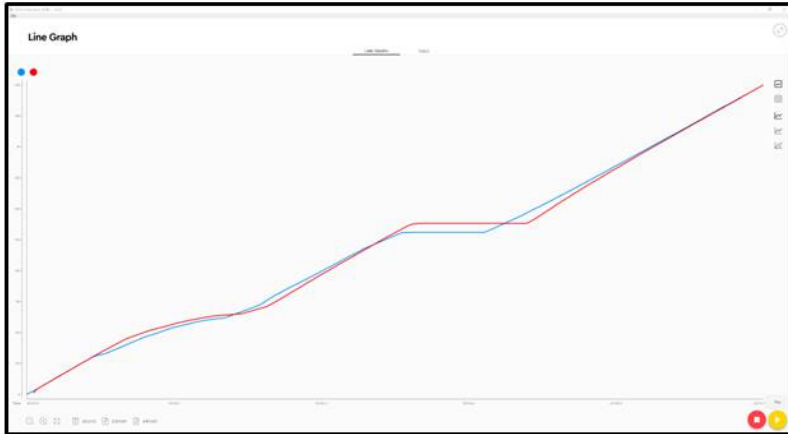


Notice similar features or lack thereof in the graphs for the other blocks

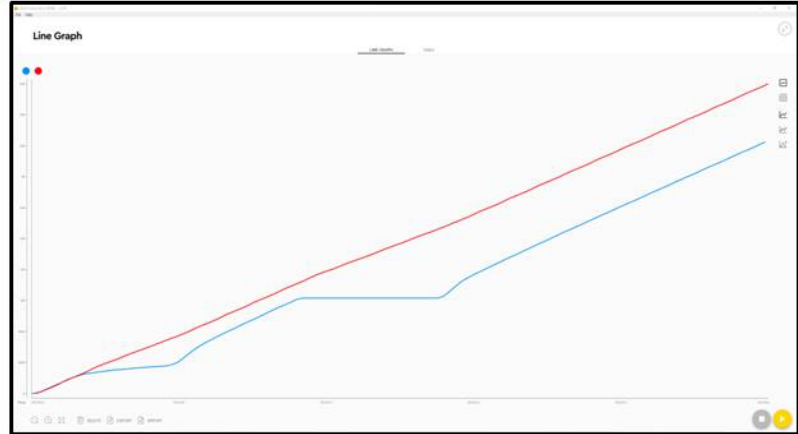
# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3



**SPIKE Legacy (2.0.9)**



**SPIKE 3 (3.2.0)**

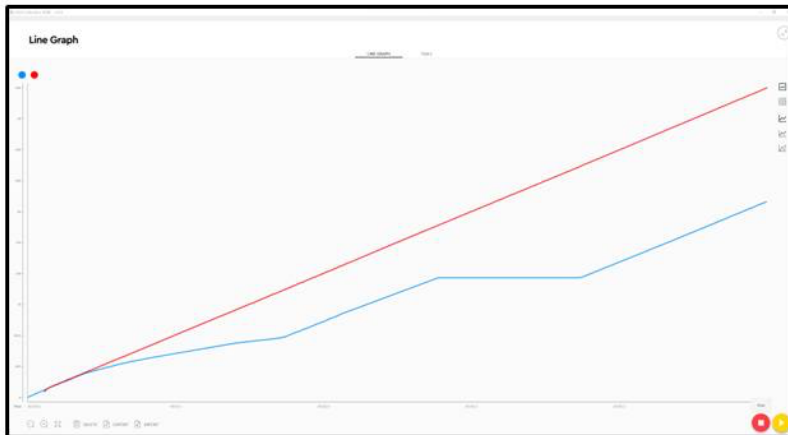




# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3



**SPIKE Legacy (2.0.9)**



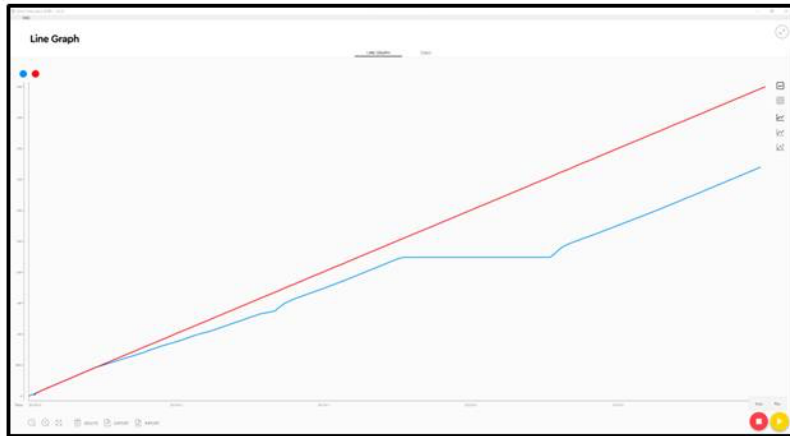
**SPIKE 3 (3.2.0)**

**Block no longer exists**

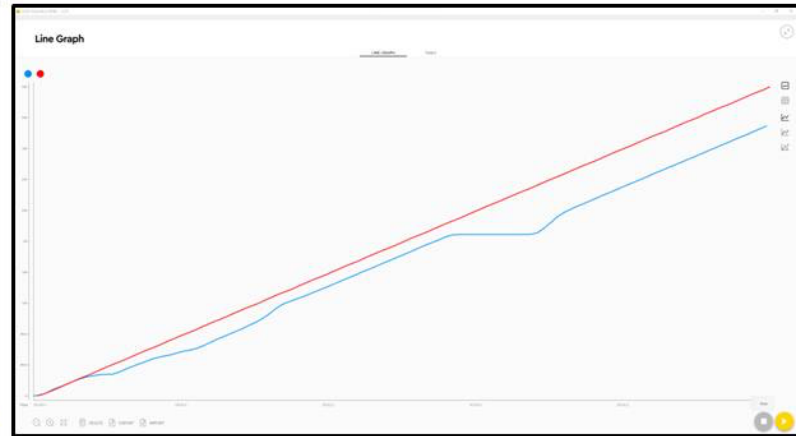
# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3



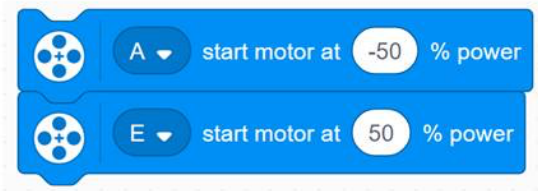
**SPIKE Legacy (2.0.9)**



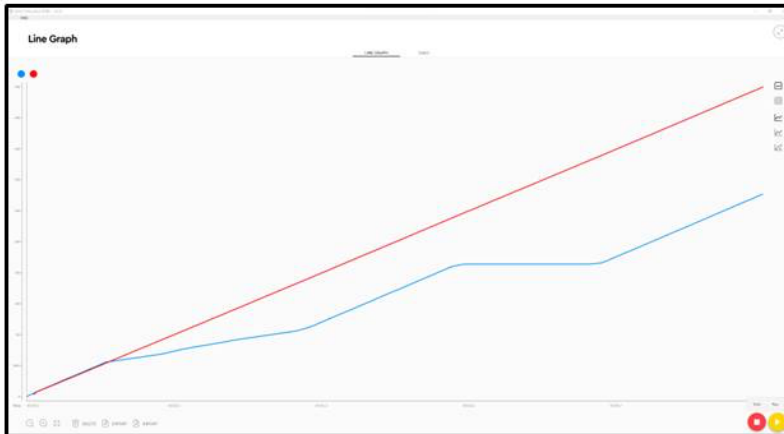
**SPIKE 3 (3.2.0)**



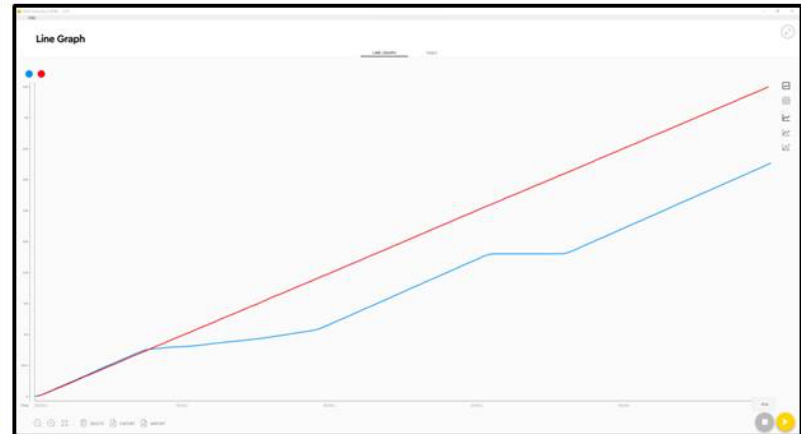
# DIFFERENCES BETWEEN SPIKE 2 AND SPIKE 3



**SPIKE Legacy (2.0.9)**



**SPIKE 3 (3.2.0)**



# CREDITS

- This lesson was created by Sanjay Seshan and Arvind Seshan for SPIKE Prime Lessons
- More lessons are available at [www.primelessons.org](http://www.primelessons.org)



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).