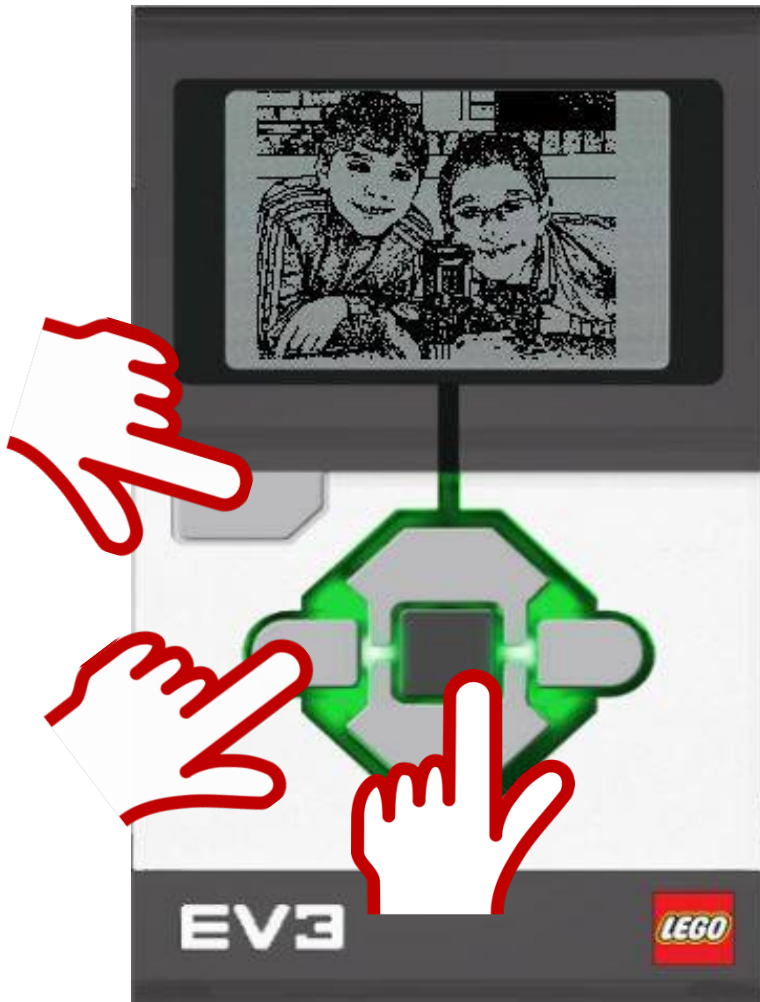**Common EV3 Issues**

By Sanjay and Arvind Seshan

BEGINNER PROGRAMMING LESSON

LESSON OBJECTIVES

1. **Learn solutions to common brick-related issues**

MY BRICK IS FROZEN

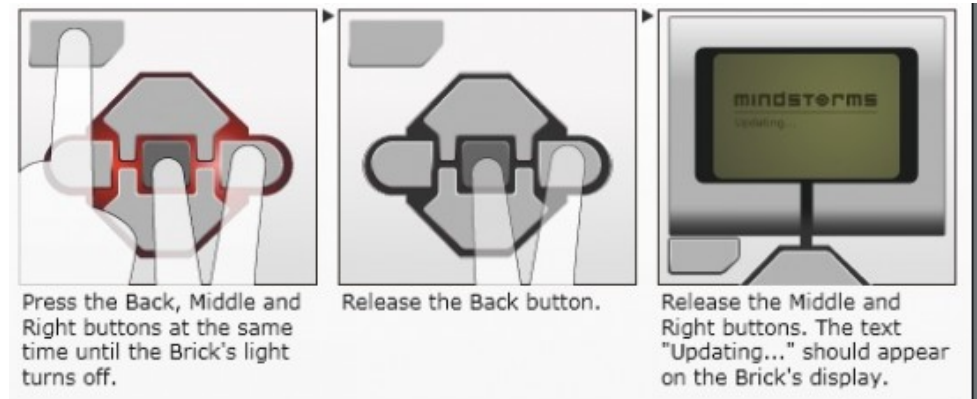If your EV3 Brick suddenly gets frozen, you will need to reset your EV3 Brick.

1. Hold down the **Back**, **Center**, and **Left** buttons on the EV3 Brick.

2. When the screen goes blank, release the **Back** button.

3. When the screen says "Starting," release the **Center** and **Left** buttons.

4. Be sure you update your firmware if you have not done so to avoid future issues with your brick

5. If your robot does not go to the EV3 menu after the reset, refer to slide 4 in this presentation.

Refer to Video from Hands on Technology:
https://youtu.be/PzMoL5shrJw

BRICK REPEATEDLY STUCK DURING BOOT/STUCK DURING FIRMWARE UPDATE

Method 1: (Brick is on and stuck)

1. Hold down the **Back**, **Center**, and **Right** buttons on the EV3 Brick.
2. When the EV3 Brick restarts, release the **Back** button.
3. When the screen says "Updating," release the **Center** and **Right** buttons
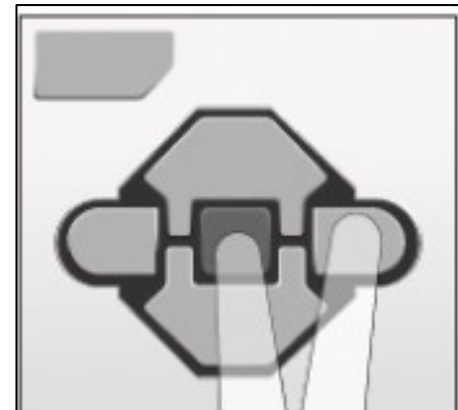4. Update your firmware again using your USB cable

Press the Back, Middle and Right buttons at the same time until the Brick's light turns off.

Release the Back button.

Release the Middle and Right buttons. The text "Updating..." should appear on the Brick's display.

Source: Text from EV3 User Guide, Image from Legoengineering.com

BRICK REPEATEDLY STUCK DURING BOOT/STUCK DURING FIRMWARE UPDATE

Method 2: (Must be able to access battery easily)

1) Remove and reinsert battery

2) When the brick is off, hold down **Center** and **Right** button together until you see "Updating"

3) Update your firmware again using your USB cable

Source: Text from "Recovery from Failed Firmware Update", STEMRobotics (Randy Steele), Image from Legoengineering.com

FULLY CHARGED BATTERY, BUT THE BRICK DOESN'T TURN ON

- Check battery contacts

- Sometimes, the battery contacts in the brick have been bent

- Remove rechargeable battery or AA batteries and straighten out contacts.

- Reinsert battery
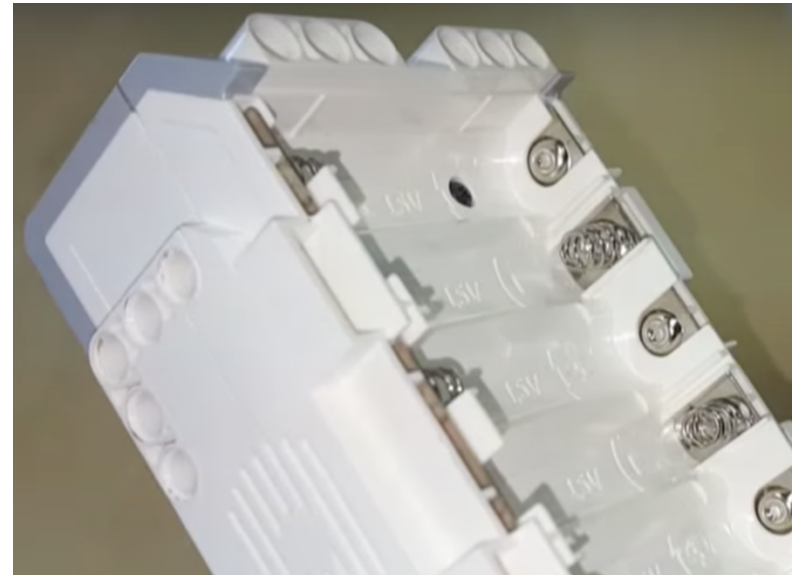
- Refer to video by Hands on Technology

  - https://youtu.be/za9bJ2nwloo

Image credit: Hands on Technology

MY "OFF" BUTTON IS STUCK

- If you want to fix it yourself….

  - There is little piece of curved metal under each brick button. This must have moved out of place.
  - Remove battery
  - Unscrew four black screws
  - Reposition the button so it makes a contact
  - Screw back the case

- You might want to call LEGO Customer Service instead
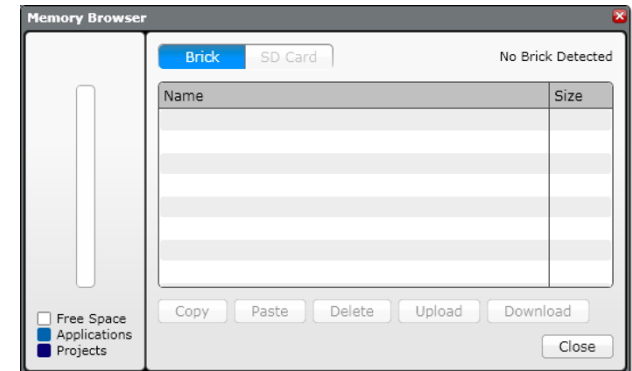
- Refer to video by Damien Kee

  - https://youtu.be/NNoutMLxmJ0

Image credits: Damien Kee

I DELETED MY PROGRAM, BUT IT'S STILL ON THE BRICK

- **Can I retrieve a program from the brick if I have lost the code on my computer?**

  - Unfortunately, if you lost the program on your computer, there is no way to get an editable program (in EV3-G) off the brick and back to your computer.

- **What about the *Upload* button in Memory Browser?**

  - It will let you get a copy of a compiled (binary) version of your program. However, you will not be able to view or edit the program in your EV3 software again.

Always back up your programs!

CREDITS

- **This tutorial was created by Sanjay Seshan and Arvind Seshan**

- **More lessons are available at www.ev3lessons.com**