



Intermediate Lesson: Intermediate Menu System

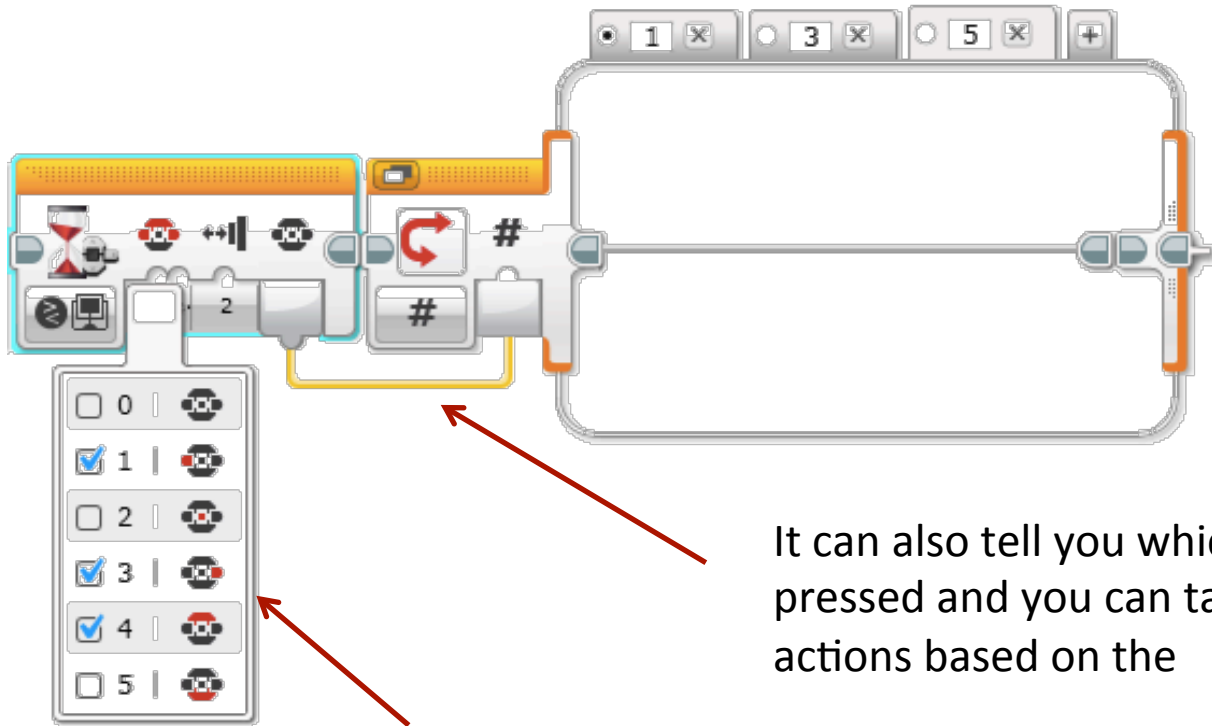
By EV3Lessons.com and Droids Robotics

GOAL: A menu that lets us select actions

- A menu is an organized way to easily perform actions based on which button you press
- You will need to know how to use the buttons on the brick as “sensors” and you will need to use display blocks to make a useful screen menu
- In the image, the actions are 4 movements – go forward, backward, left and right



New Tool: Using the Button ID



It can also tell you which button was pressed and you can take different actions based on the

Wait for button press blocks will halt the program until one of the chosen buttons is pressed

Outline/Pseudocode

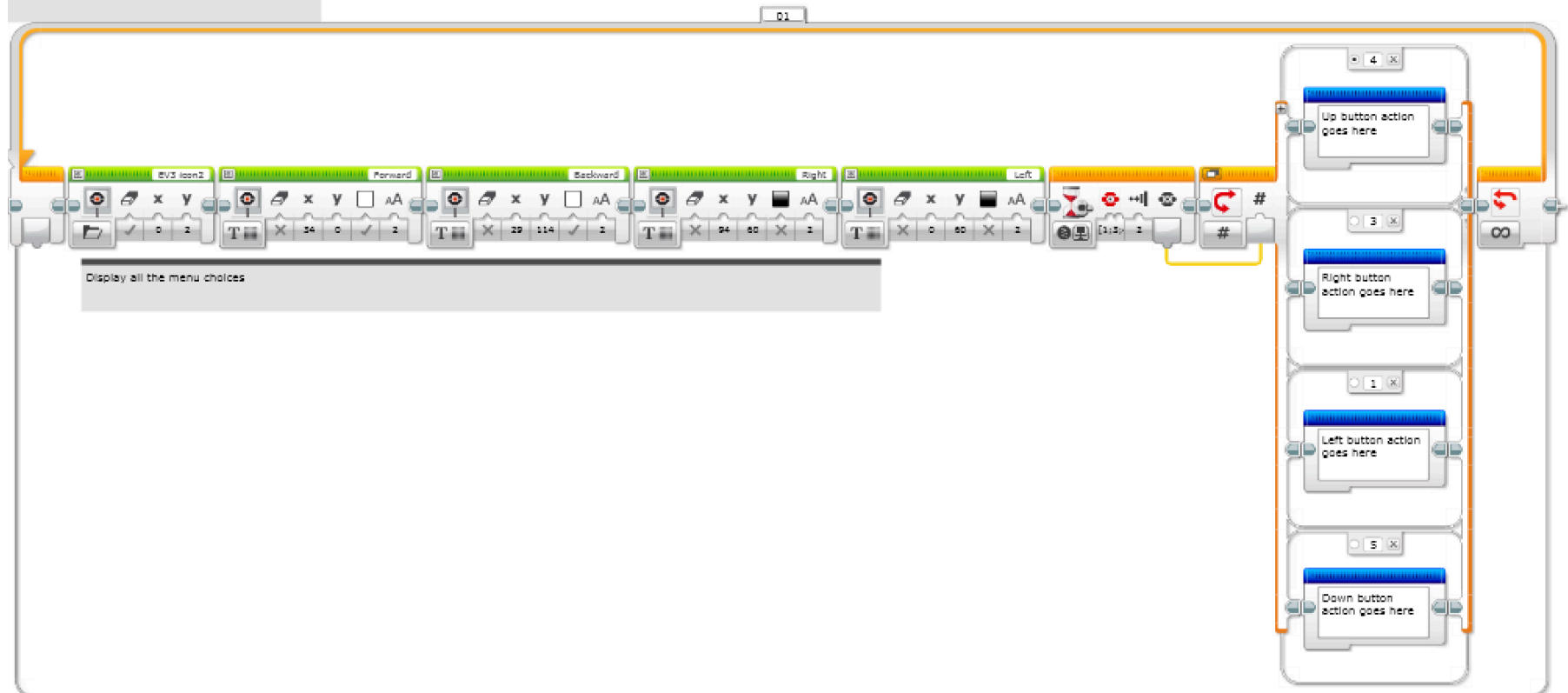
1. Display the actions on the screen so that the user knows which button performs which actions
2. Wait for the user to press a button
3. Based on the button press, run the code for the appropriate action
4. Go back to 1

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- Now...Based on the above outline, try to make a menu system that lets you perform 4 actions based on the button pressed
 - The remainder of this presentation shows you how to do this. We recommend that you try to create the code yourself first.

Step 1: Create an “Empty” Menu System

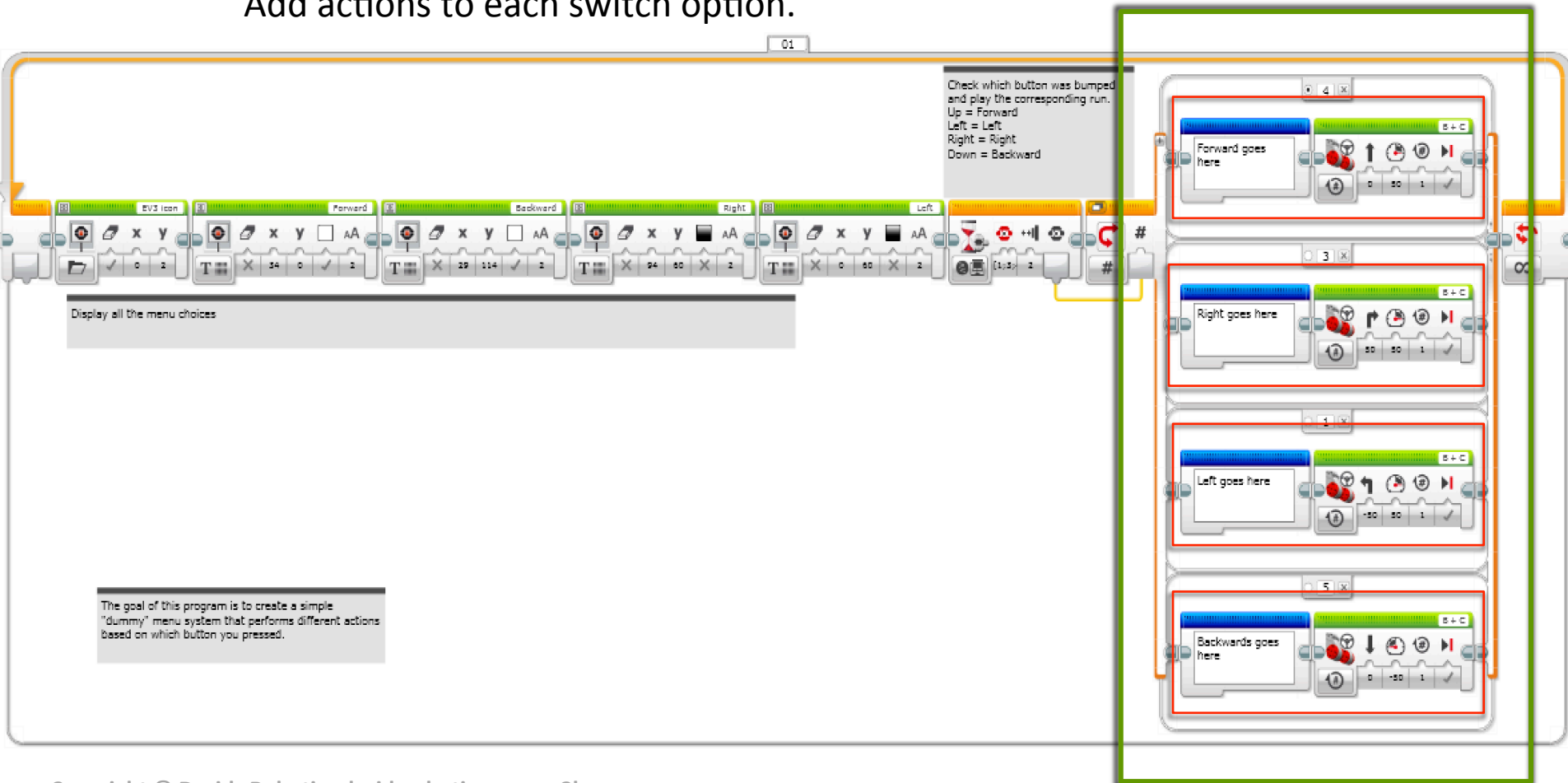
The goal of this program is to create a simple “dummy” menu system that performs different actions based on which button you pressed.

Create a menu system without any code put in

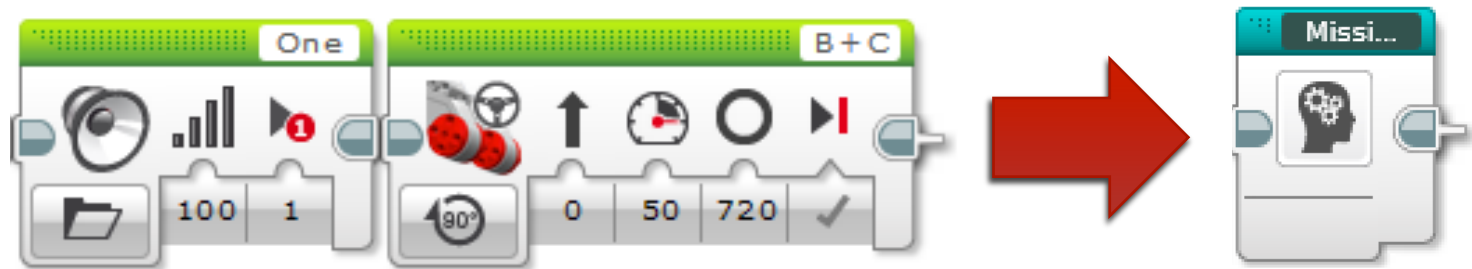


Step 2: Add Actions

Add actions to each switch option.



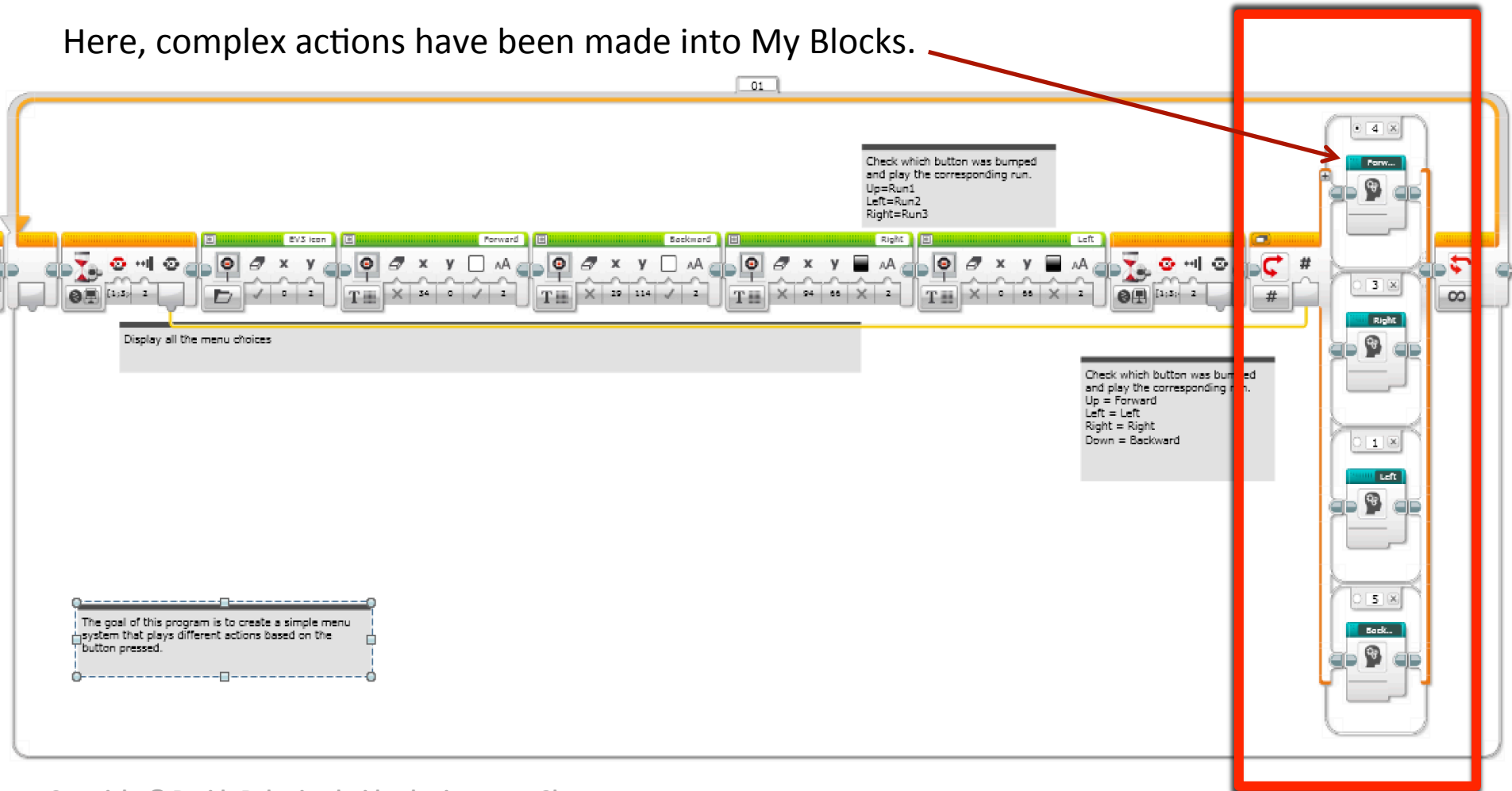
Step 3a: Convert Actions into My Blocks



- You need to convert long set of actions into its own My Block
- If you don't know how to make a My Block, see the Intermediate lesson on My Blocks

Step 3b: Add Actions

Here, complex actions have been made into My Blocks.



Mission Sequencers

- The ideas in this lesson can be adapted to help you build a mission sequencer for FLL. Sequencers are useful because they:
 - Allow you to skip missions if you are short of time
 - Allow you to repeat failed missions
 - Allow you access missions quickly (find them easily)

Credits

- These slides were written by Sanjay and Arvind Seshan
- You can modify these lessons, but please give credit to the original authors of the lesson.
- You can find more lessons at www.ev3lessons.com
- A more advanced Menu System can be found at www.ev3lessons.com/advanced.html