Intermediate Lesson: Intermediate Menu System

By Droids Robotics
Lesson Objectives

1) Learn how to create a menu that lets you select between actions

2) Learn how to use your brick buttons as sensors
Why a Menu

- 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

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

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

- Challenge: Based on the above pseudocode, try to make a menu system that lets you perform 4 actions of your choice based on the button pressed
Step 1: Create an “Empty” Menu System

Create a menu system without any code put in

Display all the menu choices
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

© 2015, EV3Lessons.com, (last edit 4/5/2015)
Step 3b: Add Actions

Here, complex actions have been made into My Blocks.
Next Steps with Mission Sequencers

The ideas in this lesson can be adapted to help you build a mission sequencer for First Lego League. 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)
This tutorial was created by Sanjay Seshan and Arvind Seshan from Droids Robotics.

More lessons are available at www.ev3lessons.com

Author’s Email: team@droidsrobotics.org

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.