FIRST LEGO LEAGUE - Ontario

Activity Sheet	
Gr 8 - Lesson #1	Building and Setup – Robot Systems
Date:	Name(s):

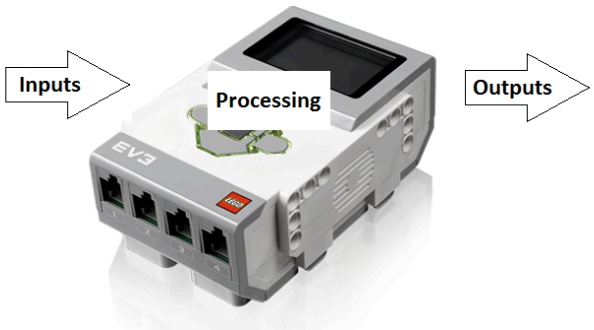
Check That I'm Done ☑		
☐ Commented on my code	☐ Modify it task	☐ Coding Challenge

Learn

Review the following definitions:

System: a group of parts that work together to perform a desired task
Physical system: a group of physical parts that work together to perform a function.
Social system: a group of people, or other organisms, joining together to perform tasks and establish relationships
Subsystem: is a smaller system within a larger one.
Input: the force, energy, or raw materials you put into a system
Output: the task or service that a system performs
Side effects: the unintended our undesired outputs of a system

A Robot is a system of inputs and outputs, like any other system.



one: 905.604.8445
ail: info@logicsacademy.com
bsite: www.logicsacademy.com

Predict and Plan

Describe how your EV3 robot meets the definition of a system (see the definition above, but use your own words).

_____

_____

_____

What subsystems are present? Account for the brick, all the motors, and sensors in your answer.

_____

_____

Take one subsystem and break it down to as many individual components as possible.

_____

_____

_____

Demonstrate/Design/Discover

- ✓ So far we've covered the sound block, light block, and display block; all of which are outputs. An input occurs when the robot gathers information about the outside world. The "Wait for Button" block will help us do that. Change a wait block to make it look like this ->

- ✓ Using this wait block and the other blocks mentioned, create a program that waits for a button press to turn yellow, says "yellow" using the speaker, and then does the same for red. End your program with a normal "wait for seconds" block to keep the light on.

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Tips: Blocks can be modified quite a bit; click on them to explore exactly how. There's a large sound library in the EV3 software (click the top left of the sound block). Also, by editing the light block, you can change whether the light blinks or stays on.

Record	
Record all your inputs and outputs of your current program below.	
Input(s)	Output(s)

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