



Learning How To Program Your EV3 – Using Your Computer

Grade Sheet - 40 pts.


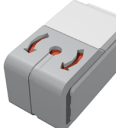






Tutorials: The following tutorials will provide you with the Code for the programs you will write later. For each of the tutorials below, go to card #3, view the code and guess what will occur and then run the program to see if you were correct. Then have your partner initial your Gradesheet. Note: Do not spend more than a minute or two on any of the tutorials!

How to Run The Programs:

- Connect your robot with the provided usb cable to your computer.
- Each program will have a White Arrow in a Blue Circle' in the bottom right corner of the screen...click it! It will allow the program on the screen to 'download' and 'play' on your robot. Read the program...if it says 'Left' 'Center' or 'Right' button needs to be pressed to start the program...then push the corresponding button to get the robot going.

Robot Sensor Tutorials		Partner Initial
Select "Unit Plans" (gold button on Home Page). Find "Robot Trainer." (" <i>Download</i> " is covering it.) Select it! The "Robot Trainer" Home Page will appear. Scroll down the page and do the following tutorials -have your partner initial this form that they saw the program run on your robot.		
Moves & Turns (Motion) (2pts.)	Go to Card #3: First, guess what the program will do. Second, download it and run it...were you correct?	
Objects and Obstacles (Ultrasonic Sensor) (2pts.)	Go to Card #3: First, guess what the program will do. Second, download it and run it...were you correct?	
Grab and Release (Lower Arm Over Cube) (2pts.)	Go to Card #3: First, guess what the program will do. Second, download it and run it...were you correct?	
Color and Lines (Color Sensor) & Example of If/Then/Else (2pts.)	Go to Card #3: First, guess what the program will do. Second, download it and run it...were you correct?	
Angles and Patterns (Gyro) (2pts.)	Go to Card #3: First, guess what the program will do. Second, download it and run it...were you correct?	

Programming Your Robot With A Computer		Teacher Initial
	1. Motion (5pts.) <i>Program your EV3 to successfully drive forward 3 seconds. Turn Around and Drive back to the start and stop.</i>	
	2. Gyro (5pts.) <i>The EV3 moved forward for a few seconds and then turned 45 degrees and moved forward for another few seconds.</i>	
	3. Front Arm Lift (5pts.) <i>The EV3's front arm lift closed down over the cube and then dragged it backwards for a few seconds.</i>	
The Following Programs Must Use "If/Then Statements."		
	4. Touch Sensor (5pts.) <i>(The program must use an If/Then statement.)</i> Program your EV3 so that it will drive forward, but when the trigger is touched, it will turn right for 2 seconds then drive straight again .	
	5. Ultrasonic (5pts.) <i>(The program must use an If/Then statement.)</i> The EV3 moved forward and stopped when its ultrasonic sensor came within 30 cm. of the cube.	
	6. Color Sensor (5pts.) a. Stop! b. Go! <i>(The program must use an If/Then statement.)</i> 6a. Color Stop: The EV3's came to a stop when the color sensor crossed a color line. 6b. Color Go: The EV3 moved for a few seconds when the blue portion of the cube was placed in front of the color sensor.	