

Homework – NXC Programming Intro and Studio Casters

For the questions below, provide the code (e.g. cut-and-paste **your** NXC code into a DOC (don't cut-and-paste from my notes) and include the photo (e.g. as JPEG) or YouTube video (e.g. provide URL) as requested.

If “Best Practices” e.g. proper filenames, descriptive variables, opening comments, braces, braces with comments, and closing are missing, then there 20% will be deducted for each.

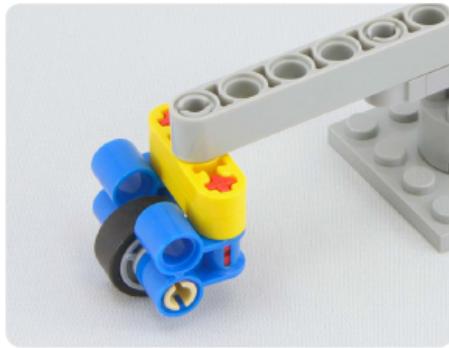
1. Refer to Hands-on Lab Lego Programming – BricxCC Basics. Use “Best Practices” and do the following (5 points each)
 - A. Exercise 1-1 (Photo)
 - B. Exercise 1-2 (Photo)
 - C. Exercise 1-3 (YouTube video)
 - D. Exercise 1-4 (YouTube video)
 - E. Concept 2A Variables (Photo)
 - F. Concept 2B for statement (YouTube video)
 - G. Concept 2C do-while loop (YouTube video)
 - H. Concept 2D if statement (YouTube video)

2. Write an NXC program that converts your age (in years) and displays your age in the number of days. Don't worry about fractional years and leap years. For example, if you are 10 years old, then the Brick should compute (365 days per year) and display 3650 days old. Hint: use int or long for variables. Include the NXC code and a photo of the NXT Brick displaying the result (10 points)

3. Write a program that uses the variable days to hold a value from 0 to 31. Use a for loop to display days and its equivalent in weeks and days. For example, 8 days would display 1 week and 1 day. Include the NXC code and video (YouTube URL) of the NXT Brick displaying the result (10 points)

4. Use Studio and pick 4 assemblies for the 10 below and construct them. Note 1: The parts in the assemblies below may not be included in your Mindstorms kit – so make substitutions. This will help you become more comfortable with building assemblies. Note 2: You're encouraged to try the others and build experience, but only 4 are required. Provide a short (e.g. 5 to 10 second video (e.g. YouTube URL) of your working assembly (10-points each).

#30



#31



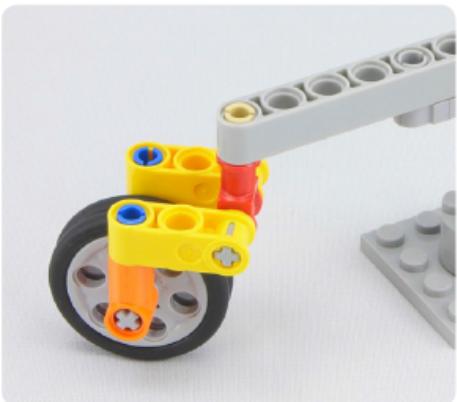
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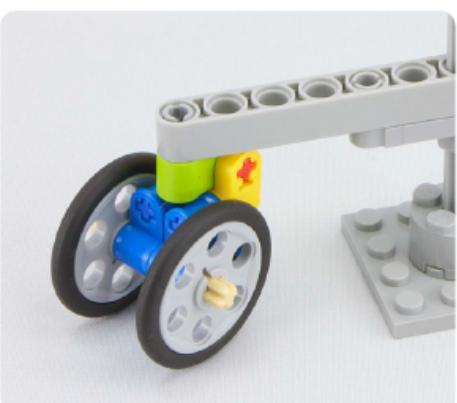
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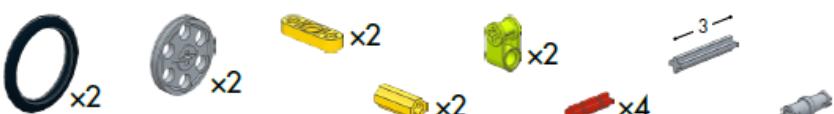
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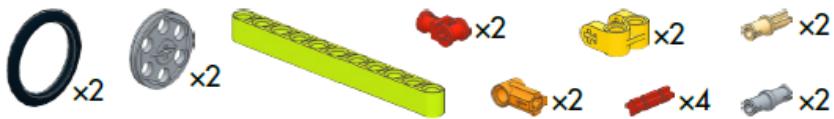
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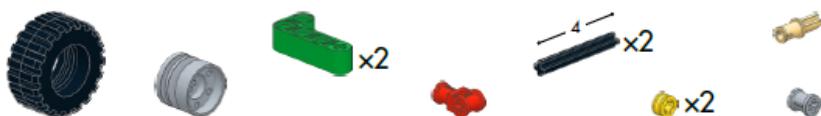
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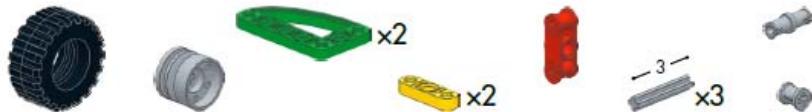
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