

PC/CP 320 Project Overview

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Outline

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You'll do the integration project and *one* other.

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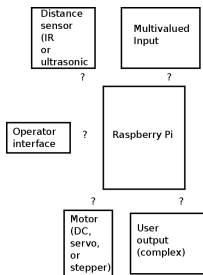
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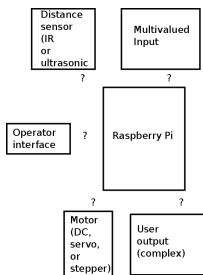
Trying to combine them would make it too easy to get overwhelmed.

Integration project

Integration project



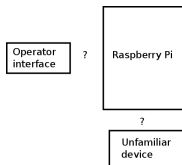
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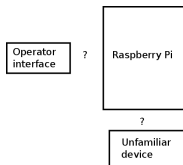
Note that the “?” may include more than just signals, such as a D/A or A/D converter.

Exploration project

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The code is to demonstrate “proof-of-concept”.

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e.g. Future users may want to add other components.

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If you're doing the enclosure project you'll have to start much earlier, or you may not finish.

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Decide on 3rd device to be used.

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- Lab 2A; Demonstrate previous devices *and one other*.

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- Lab 2A; Demonstrate previous devices *and one other*.
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- Lab 2B; Demonstrate all devices together.

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They may not yet interact; they just need to all be connected and functional at the same time.

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This includes operator interaction.

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Show it doing *something*.

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Be sure to highlight what you came up with on your own.

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Be sure to highlight your creative ideas.

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This means that you are basically doing the projects in parallel.

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- *If you can show it working on time as the 4th device, the integration demonstration can be delayed.*

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Following are some examples of options for the various system components.

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(*combination project possibility*)

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- **Infrared** sensor- analog output must feed into ADC to interface with the Pi

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If you are using an analog sensor, it makes sense to use the ultrasonic distance sensor so your two input devices are more independent.

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- **TM1638 Keypad/display** - (*combination project possibility*)

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- **LED string options** - (*combination project possibility*)

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These are *in addition* to simply monitoring the status of the system.