PC/CP 320
Enclosure Project

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Outline

There are 3 projects this term.

- **Integration project**: Brings together several things you've done in lab
- **Exploration project**: Allows you to investigate something that has been mentioned, but you haven't used in the lab
- **Enclosure project**: Allows you to design and create a casing for a device with the Raspberry Pi

You'll do the integration project and one other.
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Why two projects?
- The integration project only involves previously-seen material.
- The challenge is adapting the code to incorporate all of them.
- The exploration project introduces something you've never used.
- The challenge is learning how to use it.
- The enclosure project introduces you to prototyping in the Maker Lab.
- The challenge is learning how to design and create.

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Enclosure Goals

- Incorporate one device with Raspberry Pi.
- Leave access for power, interface, etc. connections.
- Make it easy to assemble and disassemble.
- Any individual component should be easy to replace.
- Avoid glue, solder, etc.
- Design it so that it's easy to adapt.
  - 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.
Schedule

There are 2 weeks, (i.e. 4 lab periods), mostly for the enclosure project. Because the Maker Lab is busy at the end of term, you will need to get most of this done ahead of time.

Lab 3B; Demonstrate the completed integration project. This includes operator interaction. Include enclosure prototype. There may still be refinements needed.

Lab 4B; Demonstrate the completed enclosure project. Show how to assemble it and how it is in operation. Be sure to highlight your creative ideas.
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Project Substitution Option

You have the option of combining the projects as follows:

Any of the integration project devices can be used for the enclosure project. This means that you are basically doing the projects in parallel.
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## Project Components

- **Operation**: how the enclosure is assembled and how it is in operation.
- **Documentation**: includes list of sources you used.

You are part of an ongoing community of creators and developers. Your work will be part of what future members of the community use.

- **Video or screencast**: exhibiting assembly and operation.
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