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INTRO TO THE RASPBERRY PI IDLE IDE

A Python class for my Mechatronics Engineering @ SVCTE. Last Updated for the 2018 – 2019 school year

Last Updated: Monday, January 14, 2019

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Objective, Overview & Introduction

- IDLE is the Python IDE that we will be using on the Raspberry Pi. This lecture will introduce IDLE IDE, the Raspbian Desktop and some useful Tips for managing your Python programs

1. You will be introduced to the IDLE IDE
2. You will learn how to write your first python.py file and execute it

These slides are an adaption, and companion to the book by Simon Monk "Programming the Raspberry Pi – getting Started with Python". Created to better target my SVCTE High School Mechatronics Engineering class.

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Resources & Materials Needed

- Simon Monks “Programming the Raspberry Pi – Getting Started with Python”
- PC or Laptop
- Access to the Internet
- A Raspberry Pi 3 rev2 or better
- Display (DVI/HDMI) and Keyboard and Mouse

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How will you be measured

- At the end of this lesson, you be introduced and use the Raspberry Pi IDLE IDE to create, edit and run your first python program
- You will be measured by how well you have followed the lab instructions, and been able to get your hardware working
- How will success be determined? You will be able to show that you can create a new working directory, CD to it and edit python.py files and run them

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New words or concepts...

- IDE
- mkdir
- IDLE

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LET'S JUMP INTO THE IDLE IDE

We are going to learn about the Raspberry Pi IDLE IDE

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Is your Raspberry Pi booted?

- As always, when you see we are doing a Python Lesson or Lab, you should have your Raspberry Pi connected, turned on and ready to learn…

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TAKE A DEEP BREATH...

We are about to learn some more about how to create a Directory and a file using the Linux command line commands

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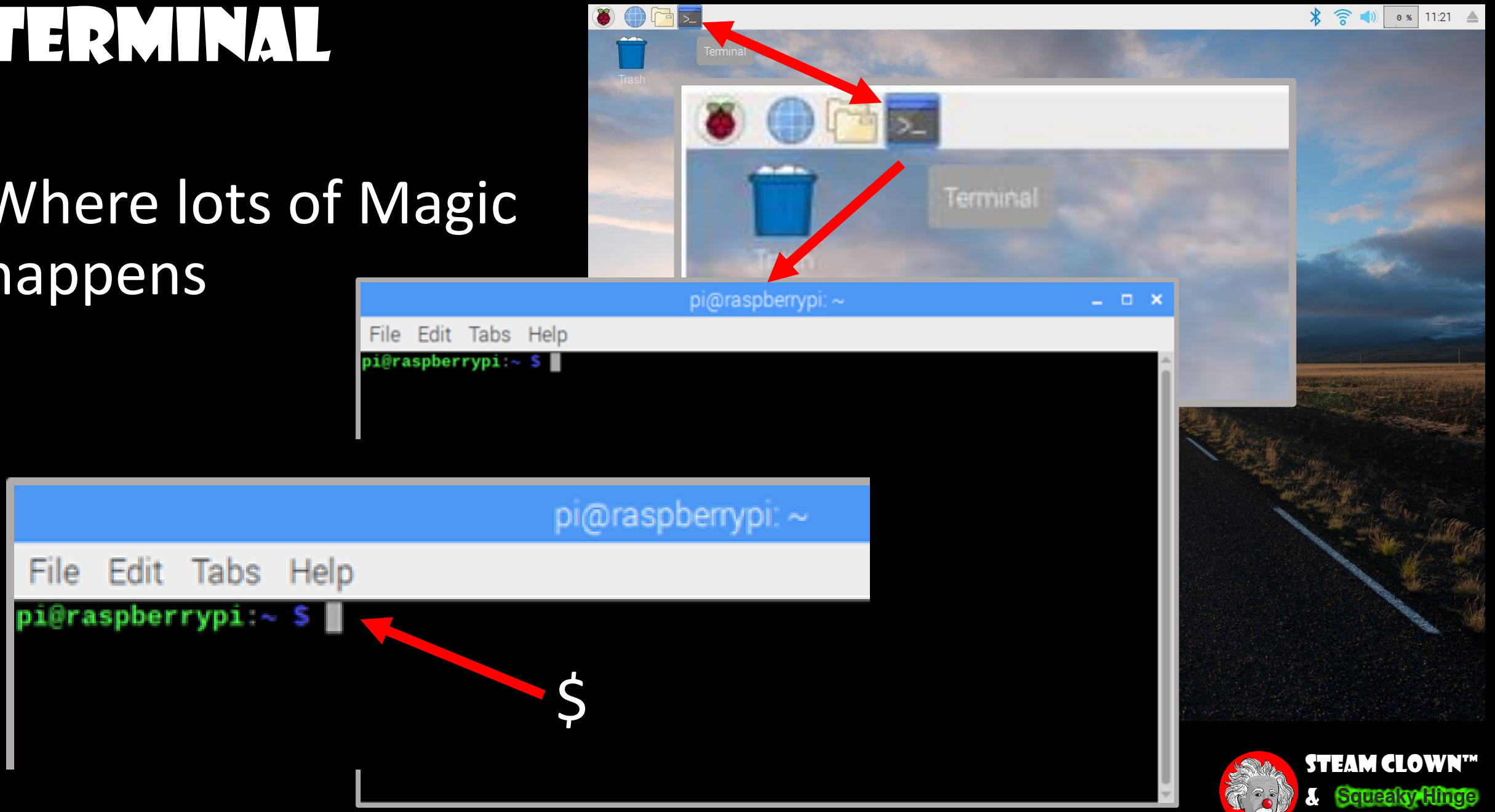
TERMINAL

Where lots of Magic happens



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Some useful commands

- `pwd`
- `ls`
- `cd`
- `mkdir`
- `cat`

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How do I create a new directory?

- Lets Review

```
~ $ pwd
/home/pi
~ $ ls
Desktop Downloads Music Public
Videos Documents MagPi Pictures
Templates
~ $
```

Print Working Directory

List what is in the directory

http://linuxcommand.org/lc3_lts0020.php

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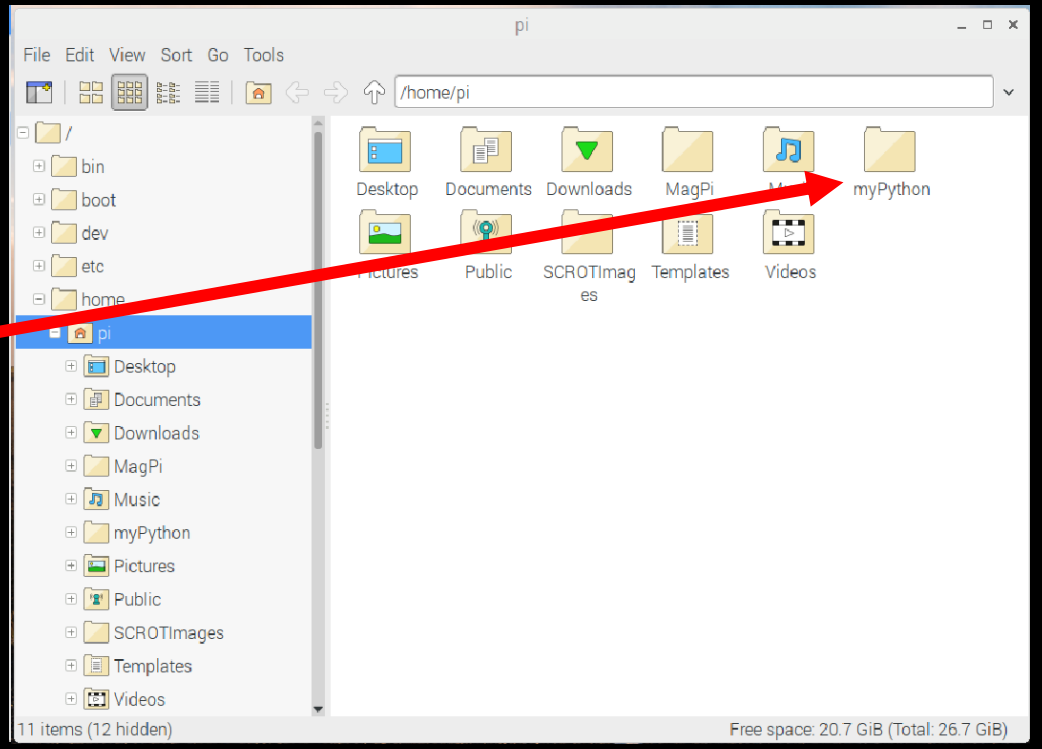
THE MKDIR COMMAND

- Creating a new Directory?

```
~ $ ls
Desktop Downloads Music Public
Videos Documents MagPi Pictures
Templates
~ $ mkdir myPython
~ $ ls
Desktop Downloads Music myPython
Public Videos Documents MagPi
Pictures Templates
~ $
```

mkdir



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Let's check out our new directory...

- Type the following:

```
~ $ cd myPython
~/myPython $ ls
```

- What do you see? Where are you?

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CAT

- **`cat`** is short for 'concatenate' i.e. combining two or more files
- **`cat`** is also used for creating and viewing text files

https://www.techinfected.net/2015/06/linux-unix-bsd-cat-command-options-examples.html

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WAY MORE SLIDES GO HERE...

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Play around… Can you screen shot Minecraft?

- Play around with the desktop and menus
- Can you get screen shot of Minecraft?

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REFERENCE SLIDES

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APPENDIX

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Appendix C: Primary Sources & Attribution for Material Used

- Linux Command line tutorial
- https://www.techinfected.net/2015/06/linux-unix-bsd-cat-command-options-examples.html

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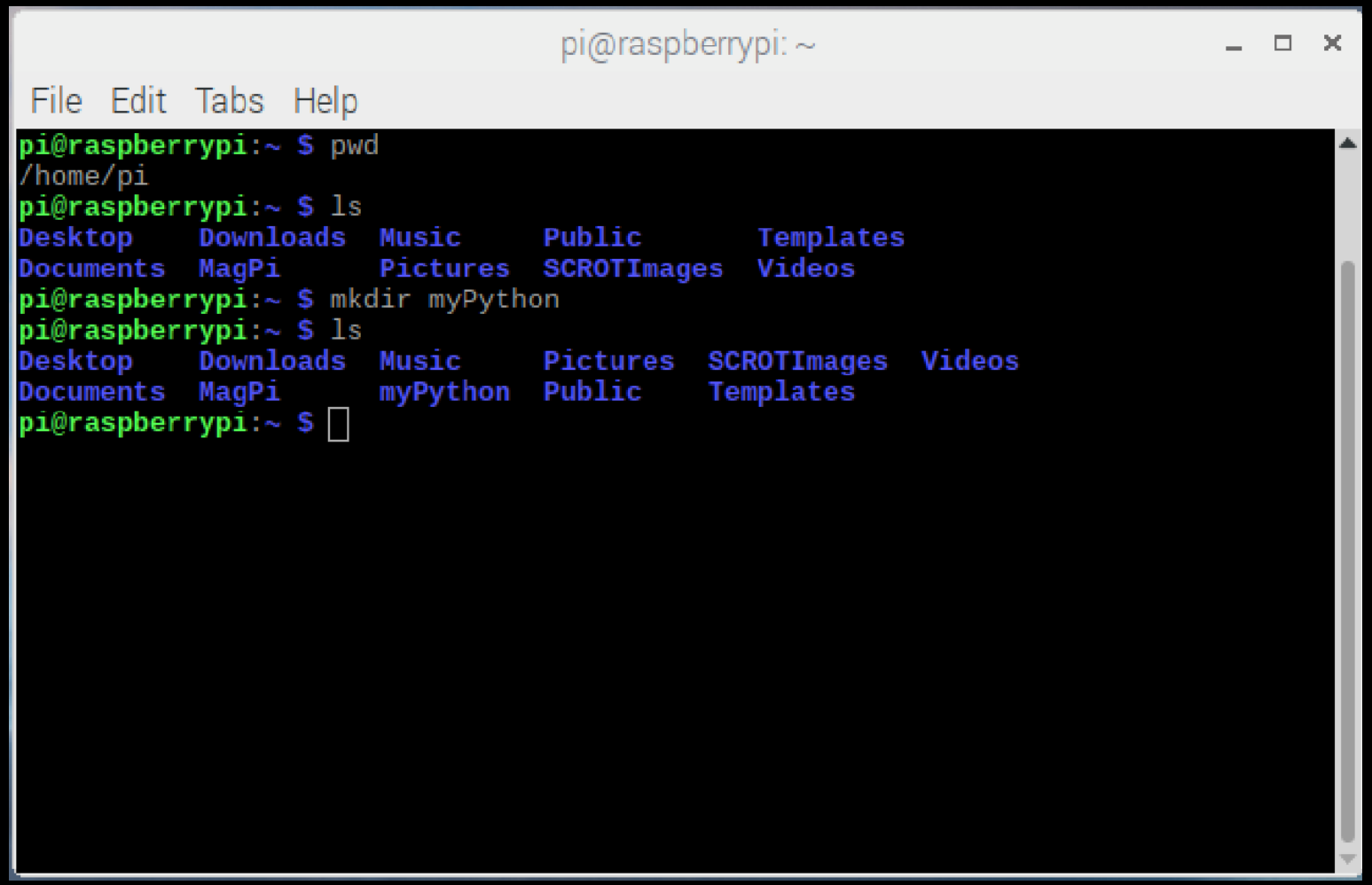

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