

# ME4140 - ROS Workshop

Mechanical Engineering  
Tennessee Technological University

Tristan Hill, Lecturer

## Module 2 - Linux Basics

## Module 2 - Linux Basics

- What is Linux?
- A Brief History
- Keyboard Shortcuts
- The Terminal
- Tutorial 2 - Install ROS Melodic

# What is Linux?

- *Just like Windows, iOS, and Mac OS, Linux is an operating system. In fact, one of the most popular platforms on the planet, Android, is powered by the Linux operating system. An operating system is software that manages all of the hardware resources associated with your desktop or laptop. To put it simply, the operating system manages the communication between your software and your hardware. Without the operating system (OS), the software wouldn't function. - LINUX.COM*

# What is Linux?

Ubuntu is a **distribution** of Linux. But there are many others.

- 
- 
-




# A Brief History

Once upon a time in California ...

- Unix was developed at Bell Labs (AT&T)
- Linus Torvalds
- read the whole story here or here

# Keyboard Shortcuts


Press  and type *Keyboard Shortcuts* to list shortcuts in Ubuntu.



Function	Shortcut
Launcher	
New Terminal	 +  + T
Abort Process	
Switch Windows	
Close Window	
Rename	
New Folder	

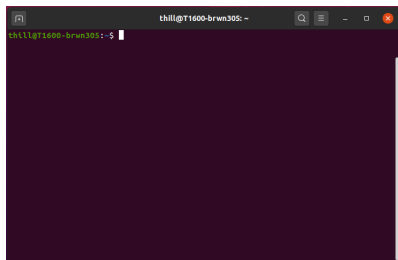


# The Terminal

The *Terminal* is a text based interface to the computer.

Press CTRLKey+  +T to open a new terminal.

Function	Command
Change Directory	cd
List Directory	ls
Copy File	cp
Remove File	rm
Abort Process	 + C
Clear Terminal	 + L



## Tutorial 2 - Install ROS Melodic

- ▶ **Overview:** ROS runs on Linux! Your first exercise is to setup your computer so that you can begin learning ROS.
- ▶ **Assignment:** Complete the tutorial in the document *tutorial1\_virtualize\_ubuntu.pdf* on ilearn. Your new system must have ROS Melodic installed.
- ▶ **Deliverable:** Write a one to two paragraph summary of what you accomplished and what you struggled with the most. Include an image of a terminal after the *roscore* command.
- ▶ **Next Week:** After completion of Module 2, you will be ready to start using ROS. You will begin with a Turtlebot3 robot platform in a Gazebo simulator.