**Arduino Planning**

*~~Rev. 0 – 4/5/2024 – Created~~*

*~~Rev. 1 – 10/24/2024 – Imported 30 Day Lost in Space Reload~~*

*~~Rev. 2 – 11/08/2024 – Future Path Drafted~~*

*~~Rev. 2 – 11/09/2024 – Renamed Project Planning~~*

**Rev. 3 – 11/10/2024 – Downloaded and Pasted Course Indexes for:**

**Cogsworth City**

**Shields Kit Training**

**Pandora’s Box AI Apocalypse**

**Draft Plan:**

**Arduino**

* **Adventure Kit: 30 Day Lost in Space Reload – In Process**
* Adventure Kit: Cogsworth City
* Shields Kit Training
* Pandoras Box: AI Apocalypse
  + *~~Pandoras Box: Another Life (Probably Skip -- Intermediate-Level Alternative to AI-Apocalypse)~~*
  + *~~Pandoras Box: Spy vs Spy (Probably Skip -- Beginner-Level Alternative to AI-Apocalypse!)~~*

**Python**

* *~~Intro to MicroPython~~*
* **Learn Python Book – In Process – Reboot and/or Restart**
* Neon Rhelm: Beginner Micro Python
* Nebula Raiders: Advanced Micro Python

**Course: 30 Day Lost in Space Reload**

***~~Start Here!~~***

* *~~Ignore only if you hate learning~~*
* *~~Optional: How to make your own personal "Astrid" Al Assistant for the Course~~*

***~~Bonus Training~~***

* *~~Ready for more projects? (E-Books And Intense Training Video)~~*
* *~~Breadboard Explained~~*
* *~~How NOT to break your HERO Board~~*
* *~~HERO Board Anatomy~~*
* *~~Voltage, Amperes, Wattage~~*

**Community Projects**

* What is this section? + how can I contribute?
* 3d printable control panel by Dltd
* 3d printable control panel by Catfishl
* 30 Days Lost in Space PDF Guide by Linda
* Printable Quiz Questions by Alex
* 2 hour competition version of 30 days lost in space by Alex
* 3D Print Greg's Control Panel Yourself!

**Daily Broadcasts**

* *~~Day 0: Prologue~~*
* *~~Day 1: Incoming Broadcast from InventrCorp~~*
* *~~Day 2: It's really dark in here...~~*
* *~~Day 3: I'm worried about your battery levels~~*
* *~~Day 4: Cabin Lighting~~*
* *~~Day 5: Creative Day #1~~*
* *~~Day 6: Time to fix the battery~~*
* *~~Day 7: We still need to keep an eye on this~~*
* *~~Day 8: Adding some color to this dark place~~*
* *~~Day 9: A better way to do things~~*
* *~~Day 10: Creative Day #2~~*
* *~~Day 11: Starting your control panel~~*
* *~~Day 12: Can you hear us?~~*
* *~~Day 13: HERO Security 101~~*
* *~~Day 14: Advanced security panel~~*
* *~~Day 15: Creative Day #3~~*
* *~~Day 16: A fancy new display~~*
* *~~Day 17: H jyfwapj tlzzhnl~~*
* *~~Day 18: The surface seems so much closer~~*
* *~~Day 19: New Horizons~~*
* ***~~Day 20: Creative Day #4 → Fail → Backlog~~***
* *~~Day 21: Hello New World~~*
* *~~Day 22: Display Panel Details~~*
* *~~Day 23: Launch System~~*
* *~~Day 24: Back to Orbit~~*
* Day 25: Creative Day #5
* *~~Day 26: HERO\_AUTOPILOT.EXE (Fun W/Bitmaps)~~*
* *~~Day 27: HERO\_AUTOPILOT.EXE Part 2~~*
* *~~Day 28: Landing Gear~~*
* *~~Day 29: Landing Gear Part 2~~*
* Day 30: Home Sweet Home! (Mission Complete!)

**BONUS: "No Code Coding Challenge"**

* No Code Coding Challenge - Introduction
* No Code Coding Challenge - Part 1
* No Code Coding Challenge - Part 2
* No Code Coding Challenge - Part 3
* No Code Coding Challenge - Part 4
* No Code Coding Challenge - Part 5
* No Code Coding Challenge - Part 6

**Course: Cogsworth City**

**Adventure Kit - Cogsworth City**

[Day 1: Getting Set Up with HERO Board](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-1-call-to-action/)

[Day 2: The Button Chronicles](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-2-the-button-chronicles/)

[Day 3: The Illuminated Path](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-3-the-illuminated-path/)

[Day 4: Movement in the Shadows](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-4-movement-in-the-shadows/)

[Day 5: The Trial of Lights and Buttons](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-5-the-trial-of-lights-and-buttons/)

[Day 6: The Guardians of Cogsworth](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-6-the-guardians-of-cogsworth/)

[Day 7: The Lost Beacon](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-7-the-lost-beacon/)

[Day 8: The Echoing Call of Safety](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-8-the-echoing-call-of-safety/)

[Day 9: The Festival Of Lights](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-9-the-festival-of-lights/)

[Day 10: Restoring the City’s Voice – Morse Code Device](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/day-10-tested/)

Introduction To Coding Class

[Lesson #1: Getting Started](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-1-getting-started/)

[Lesson #2: Blink an LED](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-2-blink-an-led/)

[Lesson #3: Push Button](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-3-push-button/)

[Lesson #4: Fade an LED](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-4-fade-an-led/)

[Lesson #5: Scrolling LED](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-5-scrolling-led/)

[Lesson #6: Photoresistor Night Light](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-6-photoresistor-night-light/)

[Lesson #7: Traffic Controller](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-7-traffic-controller/)

[Lesson #8: LED Dice](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-8-led-dice/)

[Lesson #9: Binary Counting](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-9-binary-counting/)

[Lesson #10: Whack an LED](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/lesson-10-whack-an-led/)

**Learn HERO Coding - No Extra Components Required :)**

[Hello World](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/hello-world/)

[Will Sally be walking home?](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/will-sally-be-walking-home/)

[Random Inputs](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/random-inputs/)

[Tic Tac Toe](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/tic-tac-toe/)

[The Best Way to View Your HERO’s Data](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/the-best-way-to-view-your-heros-data/)

Individual Component Tutorials

[Wires](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/wires/)

[LED](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/led-2/)

[Breadboard](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/breadboard-4/)

[Resistor](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/resistor/)

[Photoresistor](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/photoresistor-4/)

[HERO](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/hero/)

[9v Battery Connector](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/9v-battery-connector/)

[The Box](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/the-box/)

37 Sensor Kir x Cogsworth City DLC

[37 Sensor x Cogsworth City DLC 01 – Lesson 1: The Joystick Navigator](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/37-sensor-x-cogsworth-city-dlc-01-lesson-1-the-joystick-navigator/)

[DOWNLOAD FULL 37 SENSOR DLC FOR COGSWORTH CITY HERE](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/download-full-37-sensor-dlc-for-cogsworth-city-here/)

Whats Next?

[What’s Next? Your 30 Day Challenge](https://learn.inventr.io/courses/adventure-kit-cogsworth-city/lessons/your-30-day-challenge/)

**Course: Shields Kit Training**

Shields

Downloads

[Downloads](https://learn.inventr.io/courses/shield-training/lessons/downloads-2/)

READ ME FIRST

[Screen Brightness – LCD Shield (Important!)](https://learn.inventr.io/courses/shield-training/lessons/screen-brightness-lcd-shield-important/)

[Install the Libraries](https://learn.inventr.io/courses/shield-training/lessons/install-the-libraries/)

Multi-function Shield

[Buttons – Multi Function Shield](https://learn.inventr.io/courses/shield-training/lessons/buttons-multi-function-shield/)

[Beeper – Multi Function Shield](https://learn.inventr.io/courses/shield-training/lessons/beeper-multi-function-shield/)

[Potentiometer – Multi Function Shield](https://learn.inventr.io/courses/shield-training/lessons/potentiometer-multi-function-shield/)

[Countdown Timer – Multi Function Shield](https://learn.inventr.io/courses/shield-training/lessons/countdown-timer-multi-function-shield/)

LCD Keypad Shield

[Getting Started – LCD Shield](https://learn.inventr.io/courses/shield-training/lessons/getting-started-lcd-shield/)

[Buttons – LCD Shield](https://learn.inventr.io/courses/shield-training/lessons/buttons-lcd-shield/)

[Custom Characters – LCD Shield](https://learn.inventr.io/courses/shield-training/lessons/custom-characters-lcd-shield/)

[Scrolling Characters – LCD Shield](https://learn.inventr.io/courses/shield-training/lessons/scrolling-characters-lcd-shield/)

**Course: Pandora’s Box AI Apocalypse**

**Getting Started**

[Facebook Group (Community & Communications)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/facebook-group-community-communications-3/)

Day Zero: Apocalypse

[The Day AI Gained Conceisness (Getting Started)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/the-day-ai-gained-conceisness-getting-started-3/)

Chapter 01: Moving In

[Do these antiques still work? (Blink for HERO XL)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/do-these-antiques-still-work-blink-for-hero-xl-3/)

[Bad Wiring Systems (Fixing the Lights)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/bad-wiring-systems-fixing-the-lights-3/)

[Easy Light Toggles (adding some button inputs)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/easy-light-toggles-adding-some-button-inputs-3/)

[Solar Simulation Shinanigans – (Power Grid Issues!)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/solar-simulation-shinanigans-power-grid-issues-3/)

[404 ERROR: Alarms not found (Buzzers)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/404-error-alarms-not-found-buzzers-3/)

[Dim the Lights! (Potentiometers & Pusle Width Modulation)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/dim-the-lights-potentiometers-pusle-width-modulation-3/)

Chapter 02: Base Security 101

[Motion Sensor Security System](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/motion-sensor-lights-3/)

[Keypad Door Lock](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/keypad-door-lock-3/)

[NFC Badges](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/nfc-badges-3/)

[RTTTL Alarm](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/rtttl-alarm-3/)

Chapter 03: GreenHouse

[Forgetting to water the garden again (Dry Plant Warning System)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/forgetting-to-water-the-garden-again-dry-plant-warning-system-3/)

[Heat Management Pt.1 – Fan Ventilation System Simulation](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/heat-management-pt-1-fan-ventilation-system-simulation-3/)

[Heat Management Pt.2 – Automatic Fan System FAILURE (Power draw too high! – Relays)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/heat-management-pt-2-automatic-fan-system-failure-power-draw-too-high-relays-3/)

Chapter 04: Daily Life Essentials

[Accurate Alarm Clock](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/accurate-alarm-clock-3/)

[Clap Lights [](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/clap-lights-👏-3/)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/clap-lights-👏-3/)

[There are other survivors….? Getting Started T-Display (and discovering others exist!)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/there-are-other-survivors-getting-started-t-display-and-discovering-others-exist-3/)

Chapter 05: The Phoenix Restoration (Resistance Group for Humanity)

[The other survivors share their knowlege – Time to fight back! (Advanced T-Display Networking/Communication)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/the-other-survivors-share-their-knowlege-time-to-fight-back-advanced-t-display-networking-communication-3/)

[Automatic 180 Degree Sweep Radar Upgrade](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/automatic-180-degree-sweep-radar-upgrade-3/)

Chapter 06: Base Security++ (Radar System)

[False Signals – RGB Turret w/LCD TouchScreen](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/false-signals-rgb-turret-w-lcd-touchscreen-3/)

[False Signals 2 – RGB Turret w/T-Display](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/false-signals-2-rgb-turret-w-t-display-3/)

[Official Victory Signal Flare (Finale!)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/official-victory-signal-flare-finale-3/)

Chapter 07: Showdown Against The AI

[What’s next?](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/whatnextadvk2-3/)

[Mega 2560 R3 (HERO XL)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/mega-2560-r3-hero-xl-3/)

Individual Part Tutorials

[Potentiometer](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/potentiometer-3/)

[T-Display S3 w/ESP32](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/t-display-s3-w-esp32-3/)

[1 Digit 7 Segment Display](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/1-digit-7-segment-display-3/)

[Breadboard Power Supply](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/breadboard-power-supply-3/)

[Real Time Clock Module](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/real-time-clock-module-3/)

[Ultrasonic Sensor](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/ultrasonic-sensor-3/)

[Mega 2560 Prototype Shield](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/mega-2560-prototype-shield-3/)

[180 Degree Servo](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/180-degree-servo-3/)

[DC Motor w/Fan](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/dc-motor-w-fan-3/)

[LCD Touchscreen Shield](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/lcd-touchscreen-shield-3/)

[PIR Motion Sensor](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/pir-motion-sensor-3/)

[Relay (5V) Module](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/relay-5v-module-3/)

[Photoresistor](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/photoresistor-3/)

[Capacitors/Transistors/Diodes](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/capacitors-transistors-diodes-3/)

[Rain Sensor (Water Level)](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/rain-sensor-water-level-3/)

[Push Button](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/push-button-3/)

[Resistors Tutorial](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/resistors-tutorial-3/)

[Infrared Reciever + Remote](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/infrared-reciever-remote-3/)

[Logic Level Converter](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/logic-level-converter-3/)

[RFID Reader & Badge](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/rfid-reader-badge-3/)

[Rotary Encoder](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/rotary-encoder-3/)

[4 Digit 7 Segment Display](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/4-digit-7-segment-display-3/)

[Gyroscope & Accelerometer Module](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/gyroscope-accelerometer-module-3/)

[Sound Sensor](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/sound-sensor-3/)

[Light Emitting Diodes](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/light-emitting-diodes-3/)

[Temperature & Humidity Sensor](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/temperature-humidity-sensor-3/)

[Joystick Module](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/joystick-module-3/)

[RGB LED](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/rgb-led-3/)

[Active & Passive Buzzer](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/active-passive-buzzer-3/)

[Breadboard](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/breadboard-3/)

[Stepper Motor + Driver](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/stepper-motor-driver-3/)

[LCD 1602 Screen](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/lcd-1602-screen-3/)

[4×4 Membrane Keypad](https://learn.inventr.io/courses/adventure-kit-2-day-0/lessons/4x4-membrane-keypad-3/)