TEJ3M Arduino Portfolio Rubric

Name:

	Level 1 (50-59%)	Level 2 (60-69%)	Level 3 (70-79%)	Level 4 (80-100%)
Lab Completion (Application) **/50**	**Many circuits** that were investigated as part of the unit study **are missing** from the portfolio. Student shows a limited ability to build and code the circuits / labs.	**1-2 circuits** at most that were investigated as part of the unit study **are missing** from the portfolio. Student shows a moderate ability to build and code the circuits / labs.	**All assigned** labs that were investigated as part of the unit **are** present in the portfolio but not all extensions have been completed. Student shows considerable ability to build and code the circuits / labs.	**All assigned labs are completed (including extensions) with additional lab(s) studied independently** and added to the portfolio. Student shows a high degree of ability to build and code the circuits / labs.
Accuracy of Discussion (Knowledge) **UPDATE: Includes the narrated video discussion** **/50**	Discussion includes which parts are included in the circuit and the function that they serve with a **low level of detail and accuracy**. Reference to how the parts contribute to the overall circuit operation may be missing or inaccurate.	Discussion includes which parts are included in the circuit and the function that they serve with a **moderate level of detail and accuracy**. Reference to how the parts contribute to the overall circuit operation may be missing or inaccurate.	Discussion includes which parts are included in the circuit and the function that they serve with a **good level of detail and accuracy**. Includes some reference to how the parts contribute to the overall circuit operation with a moderate level of detail.	Discussion includes which parts are included in the circuit, the function that they serve, electronic chip pin layout (where applicable), and how they contribute to the overall circuit operation. All other discussion components are answered with **a very high level of detail and accuracy**.
Presentation Style / Code (Comm) **/20**	Slideshow is created **demonstrating little effort** to present the concepts in an engaging, colourful, and well-designed manner. Program contains insufficient comments or they are embedded in the code but do not help the reader understand the code.	Slideshow is created **demonstrating some effort** to present the concepts in an engaging, colourful, and well-designed manner. Program contains only simple header comments separating routines.	Slideshow is created demonstrating **obviously consistent effort** to present the concepts in an engaging, colourful, and well-designed manner. Program contains comments that are somewhat useful in understanding the code. A header is included along with specific variable names.	Slideshow is created demonstrating obvious effort to present the concepts in a **unique**, engaging, colourful, and well-designed manner. **Advanced design strategies** are used to contribute to a more meaningful/appealing display/discussion. Arduino code contains specific variable names, a detailed header, and comments that are well written and clearly explain what the code is accomplishing and how.

Extension Suggestions / Troubleshooting Steps / Circuit Neatness + Colour conventions (Thinking) **/ 20**	Final Summative suggested demonstrates limited knowledge of Arduino programming and are suitable for an intermediate TEJ course Troubleshooting steps are not fully documented but shows some insight as to your process when testing / executing code Circuits are messy and the colour code convention is not used..Components are too close together and/or wires overlap unnecessarily in many instances.	Final Summative suggested demonstrates adequate knowledge of Arduino programming and are somewhat suitable for a senior class Troubleshooting steps are mostly documented Circuit connections are not always easy to follow. If your circuit was given to someone who had some basic knowledge of building circuits, it would be hard for them to duplicate it from scratch.	Final Summative suggested demonstrates good knowledge of Arduino programming and are suitable for a senior class Troubleshooting steps are documented and shows a reasonable amount of thought Circuit is fairly neat with minor issues (e.g. components are too close, wires overlapping) and the colour coding convention is mostly followed (at most two occurrences where there is an issue)	Final Summative suggested demonstrates superior knowledge of Arduino programming and are suitable for a senior class Troubleshooting steps are documented fully and shows excellent planning / research skills Circuit is extremely neat and well organized. Colour coding conventions are used at all times (Black - wires going directly to ground, Red - wires going directly to the +5V power rail, Different colour for all other connection)