Microcontrollers, Sensors, & Motors DIY Project

Description: Now that you've completed both the Intro to Electronics and Microcontrollers, Sensors, and Motors modules, it's time to design and create a unique project. You can create anything you choose as long as it satisfies the requirements listed below.

This is your time to create! Have fun with it.

Requirements: For this module, the only DIY project requirement is that you must use an Arduino system that includes both a sensor and an actuator. The result should serve some sort of function. For example, you could create a motion-activated light sensor. If you have questions on your design, ask an instructor. You should still check the grading rubric below to make sure your work covers those aspects, as well.

Deliverables: When finished with the project, submit your code on Canvas along with a picture of the Arduino/breadboard and a video of the completed project (include as many angles/narration as necessary to demonstrate its functionality, features, etc.). For this module, you must include a short description of its purpose (200 words or less).

Grading: You will be graded as followed.

	1 pt	2 pts	3 pts
Creativity	Very simple design that requires no thought		Unique/useful implementation of the learned skills
Written Description	Complete. Description is impossible to understand. (0 pts if not completed)	Complete. Description is not easy to understand but decipherable.	Complete and high-quality description of the project.
	0 pts ←——→ 5 pts		
Design	The design does not include both required element and/or the design does not function.		Uses both a sensor and actuator with a connected purpose.

Code	The code was copied or written very poorly. No commenting.		The code was written and commented really well. Efficient.