Allocation of Points

Module Name	High Level Requirement	Points
Microcontroller	● The microcontroller must be able to appropriately differentiate between red, blue, green, black, gray, and brown from an I2C signal sent by the Color Sensors. ● The microcontroller must be able to interpret color codes of up to four colors long and make decisions on how to control the motors as a result. ● The microcontroller should be able to control a servo motor with a PWM signal. ● The microcontroller must be able to control DC motors by sending signals to the DC motor control module	20
Color Sensor	● The Color sensor module will be composed of color sensors that must be able to differentiate between red, blue, green, black, gray, and brown colors and send an appropriate I2C signal to the microcontroller.	15
DC Motor Control	● The DC motor control module must be able to direct sufficient current to two DC motors individually and be able to control their rotation direction.	10
Power Module	● The power module must provide sufficient power to the microcontroller, sensors, servo motor, and DC motor control.	5
	Total	50