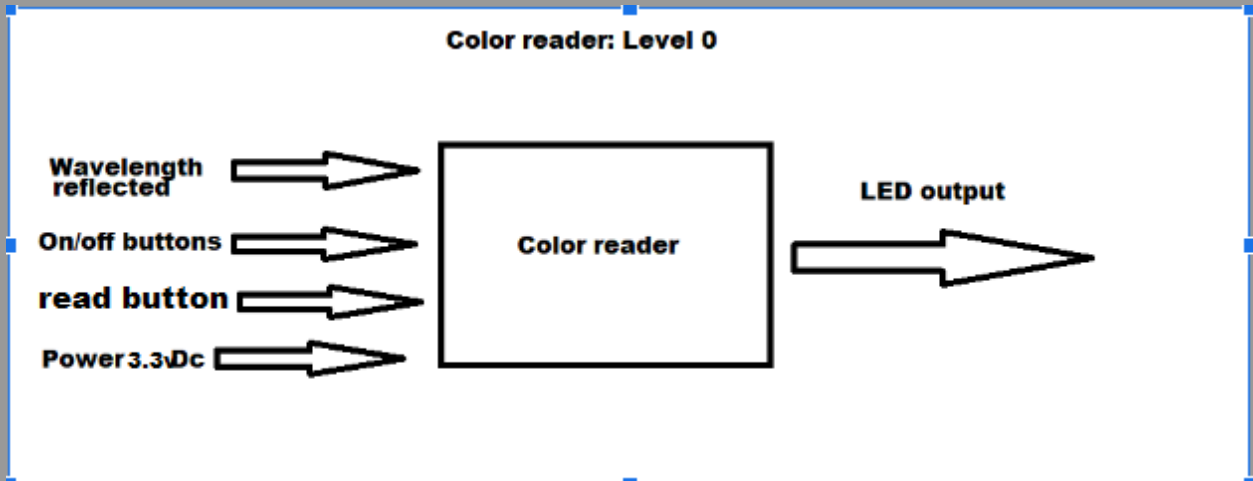


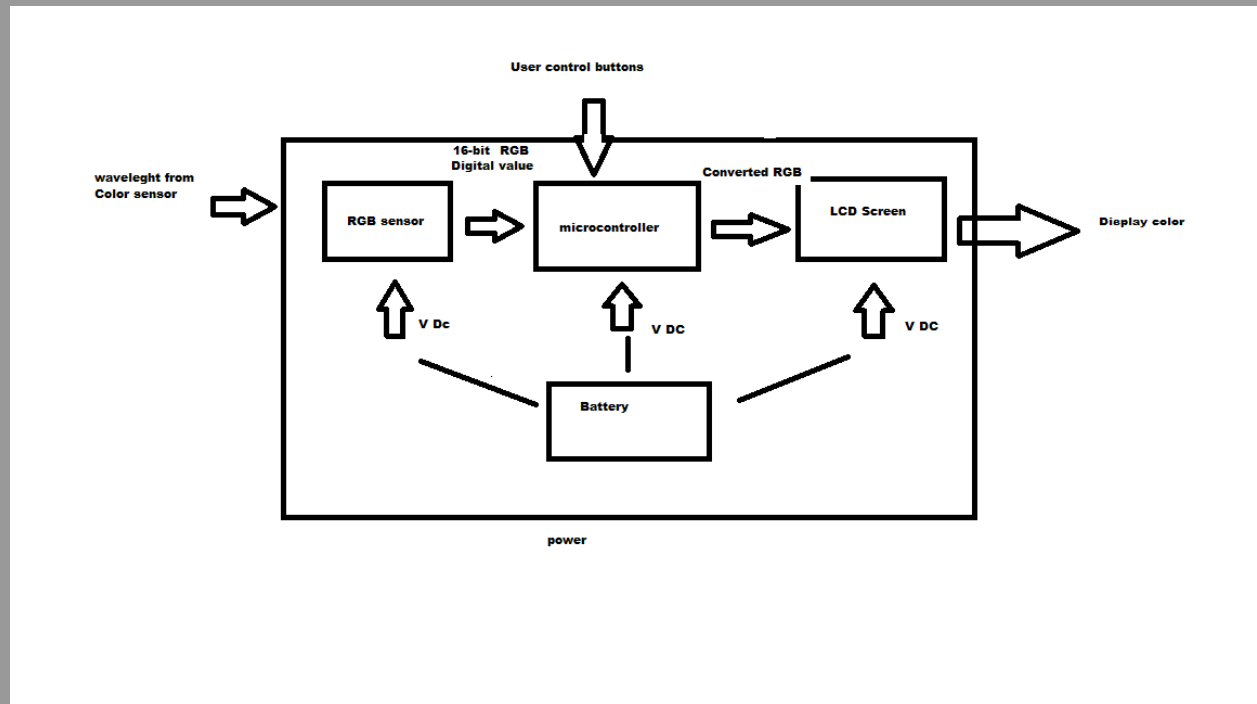
Team #3

Functional Decomposition



Module	Color reader
Inputs	Color: wavelength On/Off and read control: buttons Power: 3.3v Dc
Outputs	Led displaying the color
Functionality	Reads the reflected wavelength then converts and displays the color on the LCD. User should be able to turn it on/off and when to take the a new reading

Color reader: Level 1

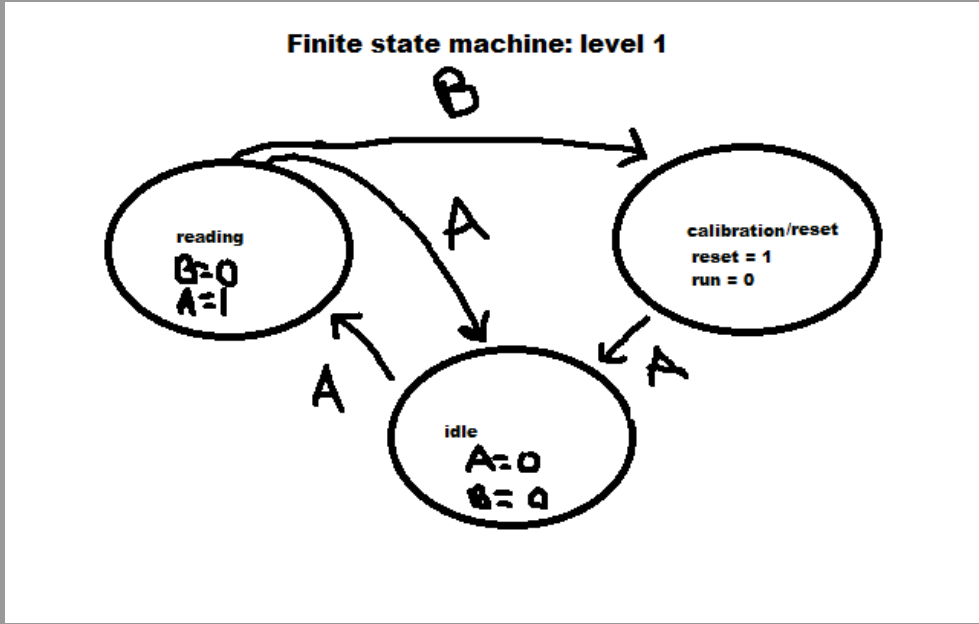


Module	RGB sensor
Inputs	Wavelength reflected Power: 0.5v to 3.8v
Outputs	RGB 16-bit Digital value
Functionality	Provides a digital value of RGB of incoming light

Module	Battery
Inputs	Power 9V
Outputs	9V dc battery
Functionality	Provide power to turn on

Module	LCD screen
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<i>Inputs</i>	<i>Converted RGB digital Power: 5v</i>
<i>Outputs</i>	<i>Readable information</i>
<i>Functionality</i>	<i>Displays to the user the color</i>



<i>Module</i>	microcontroller
<i>Inputs</i>	Power: 2.7v to 5.5v Clock: 0 to 8MHz Color sensor
<i>Outputs</i>	Reset/read modes LCD Color sensor
<i>Functionality</i>	Changes the color sensor from reset and run modes