**OUTPUT**

**System Provides**:

* 20 X 4 LCD Monitor
* It Displays Real-Time **NATURAL** Light Reading
  + From Light Dependent Resistor (LDR)
  + As Well as the ON/OFF Period of our Lamp
* Range of the Light Reading:

Between 0 – 1023

* But when a certain threshold is reached (IN OUR CASE 550)
  + RELAY SWITCH CLOSES
    - Providing a complete Circuit
    - Automatically Powers the Artificial Light

**OUR SYSTEM IS POWERED BY** Arduino Uno & is highly SCALABLE

* The 16Mhz / 32KB Microcontroller Board Offers:
  + **Sensor Extensions** for things like Temperature & PH
    - With its 20 Analog & Digital I/O Pins
    - This Also Allows for the Attachment of Various Extension Boards like an Ethernet Shield
      * For Networking & Wireless Capabilities
  + **Potential Power Source** **Alternatives** like Solar Power Can be Explored as well
    - In order to Store Energy for our System

**PLANS FOR THE FUTURE**:

* To Provide Real-Time Online Data Monitoring
  + From Our Sensors To the World Wide Web
* Here is an Example of an On-Line Service Called **PLOTLY**
  + Where Live Streaming Data Can Be Accessed with any device Connected to the Internet
* This Graph Shows the Threshold Line & When the Reading Falls below that Line the Artificial Light is turned ON
* Additional Graphs Can Be included to Monitor Temperature & PH balance