To submit

1. Record the resistance of the photoresistor in light and dark.

Resistance in the light: 301 ohms

Resistance in the dark: 139.1 kOhms

2. Your choice for R in Figure 2.

My choice for R in figure two would be the 2k resistor because it provided the photoresistor with the most sensitivity to the light and dark.

3. Output voltage and ADC value in the light.

Output Voltage: 1.16V

ADC Value: 360

4. Output voltage and ADC value in the dark.

Output Voltage: 13.21V

ADC Value: 4,095

5. Describe the behavior of the motor in light and dark for the configuration in Figure 3.

In complete light, the motor does not move. As it gets darker, one can hear the motor engage and once it is dark, the motor begins to move. The darker it is the higher the motor speed.

6. Describe what you would do to the circuit to reverse the behavior of the motor.

To reverse the behavior of the motor all one would have to do is switch the places of the fixed resistor and the photoresistor.