Solar clock

Sensors used: LDR, temperature sensor

I wanted to use an ldr sensor. My geography teacher had taught me that the 12 o clock of a place is when the sun is exactly overhead and I also recently learnt that the sun is rotated by an angle of 15 degrees every hour. Using these two facts I tried creating a solar clock, that would not only tell the time of the day using the angle of the sun but also display the temperature at different times of the day.

+ There are two ldr sensors in the simulation, both of which calculate the intensity of light falling on each of them.
+ As the sun moves one side gets more intensity that the other, therefore the servo slowly moves in the direction in which the intensity is higher, so as to ensure that the difference in intensities in both the ldrs is below a certain set minimum value.
+ This way the servo tracks the angle of the sun.
+ Based on angle, time is calculated, by using the fact that every 1 hour is 15 degrees.
+ Time is thus displayed

+ Temprature sensor is also utilised in this process and is used to tell the temperature of the environment.
+ The readings are then printed on an lcd screen.