• Task2:

Using LIPO battery is useful that it offers high capacity and hence can be used to hold more power.

To calculate the current through the LED Using ohm law (v=I\R)

I=V\R = 12v\3.3ohm = 3.64A

to estimate the battery life, we divide the total battery capacity(5200mAh) by the current consumption (3.64A) to get the approximate runtime in hours

Battery life = Battery capacity / current consumption=5200mAh /3.64A = 1.428h

(SO SINGLE LIPO BATTERY IS NOT SUFFICIENT)

Number of batteries = desired time / Battery life = 5 / 1.43 = 3.5 batteries

since we can not use a fraction number of a battery, we round it to the nearest number.it means that we need **at least 4 batteries** coonected in parrel for more than 5 hours.