





LED\_B = Blink  
LED\_P = PWM  
LED\_D = Digital

LED Resistor  
 $3V3(Supply) - 2V2(LED) - 0.7(transistor) = 0.4V$   
 $R_{led} = 0.4V / 20mA = 20\ \Omega$   
 rounded to 22  $\Omega$

Sheet: /LED\_brd/  
File: LED\_brd.sch

**Title:**

Size: A4 Date: KiCad E.D.A. kicad (2014-12-11 BZR 5320)-product

Rev: Id: 2/2