## **ABSTRACT**

Phenomenon of Jaundice is a yellowing of baby's body in 1 or 2 weeks after baby's birth. As known on statistic, the premature baby has 75% to indicate the Jaundice than the normal birth. The jaundice treatment was done by expose the baby on the morning sun if the bilirubin levels <12mg/dL, phototherapy if the bilirubin levels <25mg/dL, and exchange transfuse if bilirubin levels >25mg/dL. Phototherapy was done by using the blue LED with wavelength is 460nm and the intensity is 30 - 40 µwatt/cm<sup>2</sup>. The phototherapy device using the LED light because it was durable and enegi efficient. The kind of LED that uses is the High Power LED that getting hot so it takes a cooler to keep LED still works.

Keywords : Jaundice, Phototherapy, LED