ABSTRACT

Kidnapping is one of the crimes of various crimes committed in this world. Often this kidnapping involves children as victims. This makes the parents anxious about the safety of their children. Because children often play until they don't realize if they are far from the supervision of their parents. Therefore it is necessary to have a device for parents to supervise their children. By wishing the parent's supervision becomes more widespread. The solution to this problem us the tracking device. This tool can be used to assist parents in supervising their children while playing in public places. But this device should be small, wearable and unattractive, so if there is potential for kidnapping, kidnappers are unaware if the children has a tracking device so parents know if their child is about to be kidnapped. There are many tools in the market, but some of these devices still have shortcomings and failures. DFMEA is one of the most popular methods of identifying failures. DFMEA is one of the most popular methods of identifying failures. DFMEA identifies failure mode, failure cause, and failure effect. This paper discusses the shortcomings and failures in the design of previous tracking devices. Starting from the structural failure to electrical failure. The output of this paper is the new design and improvement based in its RPN value.

Keywords : DFMEA, Wearable Tracking Device, Children Abduction, RPN