

Abstract

Bus Rapid Transit - more commonly known as busway - is a public transport medium that is widely used by citizens of the capital. However, special bus lines are often abused by non-bus drivers, therefore managers plan to build contraflow systems. However, this system will have problems when applied at the intersection. To overcome this It takes a traffic light to regulate the flow of traffic. In this final project, the writer will model the traffic light system at intersection using current line. Then the model will be formalized into a formal model with a certain temporal logic. The model will then be verified and the results of the verification will be analyzed to ensure that the formal model built meets the specifications that have been made.

Keywords: Traffic lights, Intersection, Formal method, Linear Temporal Logic, NuSMV.