

Development of Real Time Night Vision Camera Monitoring Robot Integrating DTMF and GPS System

Abstract

In general, spy robots were employed mostly in military field to patrol over the country border and also can be assigned for a rescue and search mission. Even though this technology has a rapid growth recently, the major problem is what is there in Malaysia security sector, there are many lacks in this technology if compared to other countries. Furthermore, most robots use the RF technology which means the person can only monitor or control the robot within a limited range. Even though the patrol robot can be operated from a long range, there is a circumstance that it can be hard to be located or tracked. Moreover, the ordinary camera can't deliver a better performance under dark circumstances. In view of confinements that have been featured previously, this project plans to develop a mobile patrol robot with wireless night vision camera that can be controlled by using DTMF and GPS system that can be used in military field. There are several parts to be implemented in this project as following; software simulation & hardware development of robot. As example the DTMF technology, GPS system and wireless night vision camera as well are implemented in this project so the working principle of the robot features needs to be simulated and programmed into the robot using Arduino and Proteus software. Only then if the simulation is succeeded the progress is then proceeded to the hardware development of the robot. Later the successful simulation is integrated into the robot to make the robot can be fully operated. To conclude, this robot is supposed to be able to easily be tracked by GPS system and monitored from long range using DTMF while performing such monitoring or guarding duty at the country border or other public areas.