KARABÜK ÜNİVERSİTESİ

AUTONOMOUS FIRE DETECTION AND FIGHTER ROBOT

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PROJECT PURPOSE

Many fires have occurred in the past and as a result, many lives and property losses occurred.Many studies are carried out today to reduce these destructions (loss of life and property). Although the general causes of fires are obvious, fighting fires is not always easy. Therefore, scientists are working on unmanned and autonomous robot systems. In this context, many studies have been done and continue to be done. The main purpose of our project is to minimize the losses that will occur while interfering with these fires.

THE ADVANTAGES OF THE PROJECT

- Autonomy
- Design(Performance, Cost, Simplicity)
- Applicability

METHOD

The project was created on the arduino platform. The project was coded in C and C ++ languages. Infrared receiver LEDs are used for fire detection.The basic working principle of the project; Scanning a target(Fire) within a certain region, target detection and performing the fire extinguishing process . After that, patrol process and new target detection process.

RESULTS

This project is designed to minimize the loss of life and property in buildings where there is a high fire risk (factory, facility etc.) and to set an example for the widespread use of unmanned and autonomous systems.