

FIREBOT

Description:

The Project is about a robot that detects and extinguishes fires. It is equipped with a water tank and wheels to move to location and spray the fire down.

It uses a camera with a heat sensor to detect heat signatures within its FOV. Once it detects a fire it will move to a predetermined distance to the fire and start spraying. The arm that holds the hose moves up or down to adjust where the water is going. Just like a vacuum, it will keep spraying and moving forward until all the fire is extinguished.

Methods:

- Move Forward
- Move Backward
- Yaw Sideways
- Scan FOV
- Fill Tank
- Display Tank Level
- Move Spray Arm Up
- Move Spray Arm Down
- Start/Stop Spray Operation
- Display Current Action
- Return Home
- Track movement
- Display Battery Level
- Emergency stop action
- Track Heat signature
- Display Distances