How do wildfires start?

Or rather, how do we get to know about wildfires? The only times the average citizen hears about a wildfire are when they become "out of control." These large wildfires started small.

The Problem

Only 20 active lookout towers and highly inaccurate weather readings unable to predict lightning strikes is clearly insufficient for early wildfire detection. This has caused the burning of 138 million hectares of forest over the last two decades.

Blazewatch

An integrated system combining satellite imaging with autonomous drones to provide real-time data and achieve early wildfire detection and prevention.

Our Solution

1

Global Information Systems (GIS)

By gathering data through satellite imaging, such as humidity, vegetation density, local temperature, and even predicted lightning strike locations, a trained machine learning model uses the information to predict wildfire risk across the entirety of BC.

2

Thermal Drones

Equipped with infrared cameras, the thermal drones investigate the provided high risk areas autonomously, applying path optimization and cooperative control. Human intervention is unnecessary in this step.

3

Integrated System

The collected data is mapped out on a computer interface. Any necessary alarms are sent to the nearest fire stations to address confirmed wildfires immediately, and detailed information of these fires are available to everyone.

Our Vision

It isn't right to make firefighters fight in battles they cannot win. Detecting smaller wildfires early results in fewer large, uncontrollable wildfires that saves the land, money, properties, human lives, and the world from its perpetuating cycle of climate change.