

Implementation of an application that helps to control fires

CLASIFICATION OF FIRES TO CONSIDER:

Forrestal Fire: A forest fire is fire that spreads uncontrollably in forest or wild terrain, affecting plant fuels, flora and fauna. A forest fire is distinguished from other types of fire by its wide range, the speed with which it can be extended from its place of origin, its potential to change direction unexpectedly, and its ability to overcome obstacles such as roads, rivers and firewalls.

Industrial Fire: Fires in factories and other industrial buildings and it may be accompanied by explosions. It can be extended from its place of origin depending on the type of industry and chemicals.

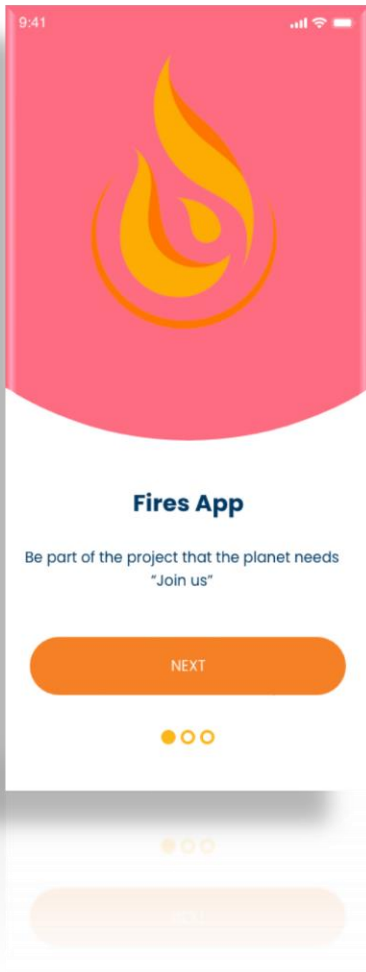
Normal Fires: Those with an extension between 1 ha and 500 ha. In Spain, about 35% of the declared fires belong to this type.

Incipient Fire: Those that do not exceed 1 hectare of burned area. In Spain they represent almost 65% of the total. The higher the percentage of fires that remain in incipient fires, the greater the effectiveness in the extinguishing systems.

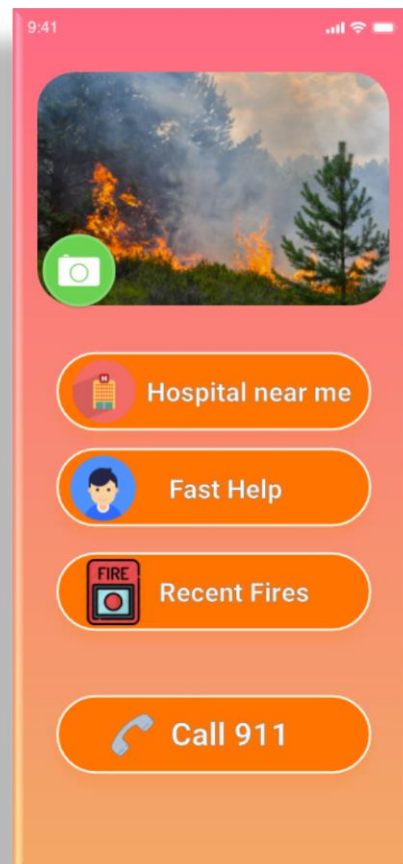
APP's DESCRIPTIONS:

What is FireApp?

Fire App is an application that gesture and helps control fires by broadly allowing users to participate in their mitigation, either reporting the fires through photos or videos or being a first aid volunteer. The support that it gives are characterized to do the next:

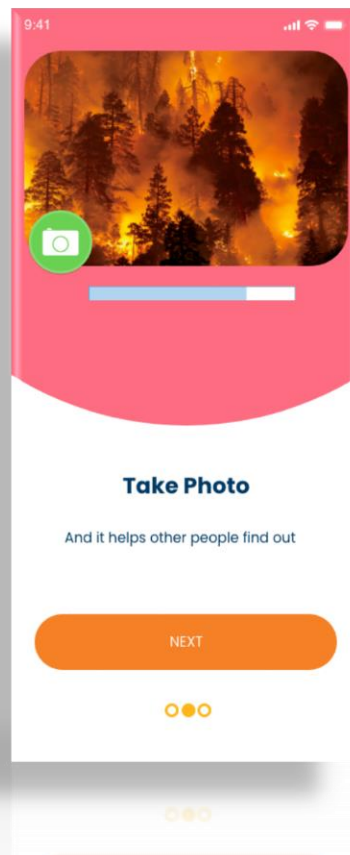
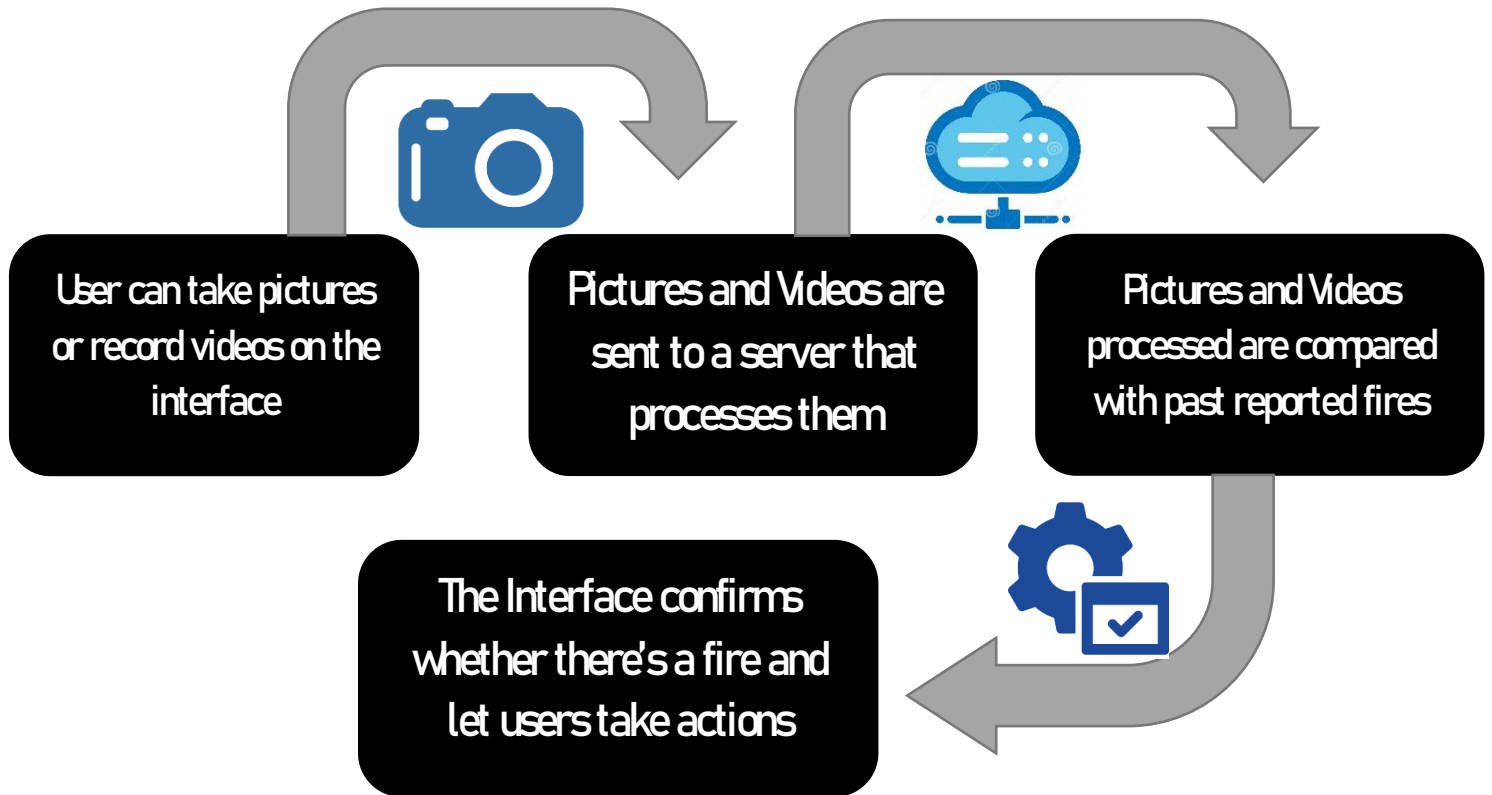


- **Report a fire:** By uploading pictures and videos of near fires.
- **Verifying citizen fire reports:** Verify whether a picture/video is fire-related using a machine learning method of Keras and TensorFlow libraries.
- **Notify related people:** Notify about fires to nearby users, fire departments and hospitals, allowing them to take actions.
- **Design rescue paths:** Mark on maps a customized way to a safe area like hospitals or medical centers.
- **Social networking:** Inform the people where and when occurred a fire.
- **Promote volunteering:** Between people with knowledge on medical area.



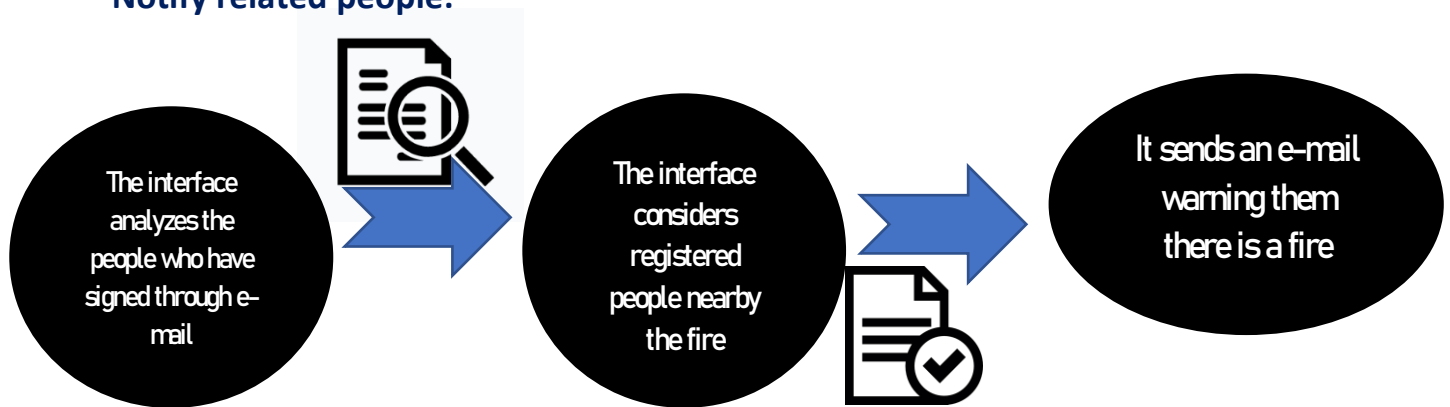
How Fire App works?

Using the interface, it can interact with the user that can take pictures or send videos, the same that will be verified with external NASA's Data if it is a fire or not.



When the fire is confirmed, the application can take some actions related before.

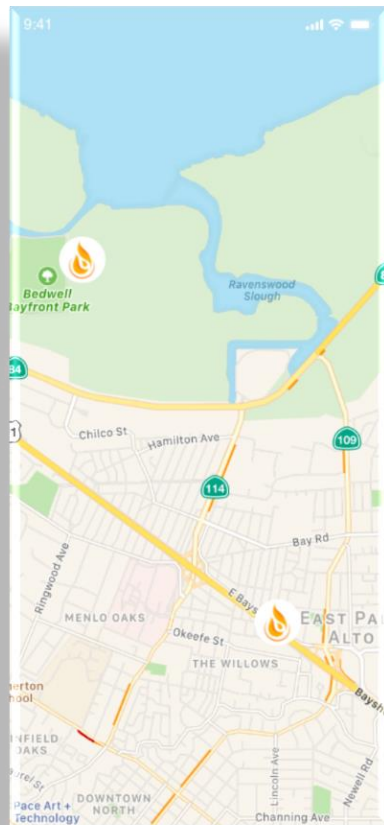
Notify related people:



Even if you are an user that sent the proof of the fire or you are an user that only are involved and in risk, you can use the option search save paths to save yourself and put you in a safe place.

Searching Safe Paths:





Social networking

There is a twitter account in which the profiles of people who have used the app giving fire alerts will be published and updated continuously in order to motivate them to continue participating, also since the number of twitter users is immense, this mode of gratification towards the FireApp user will allow the community to expand.

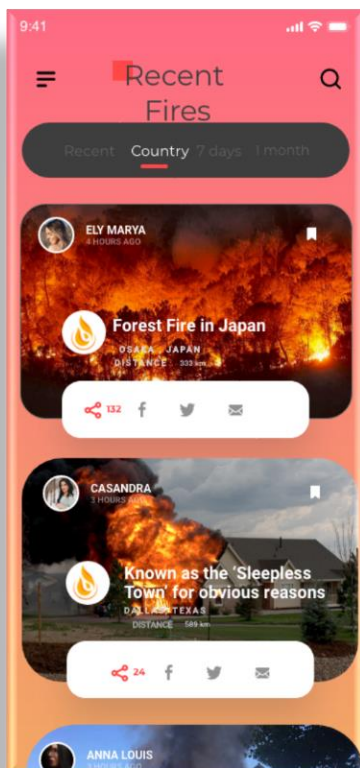
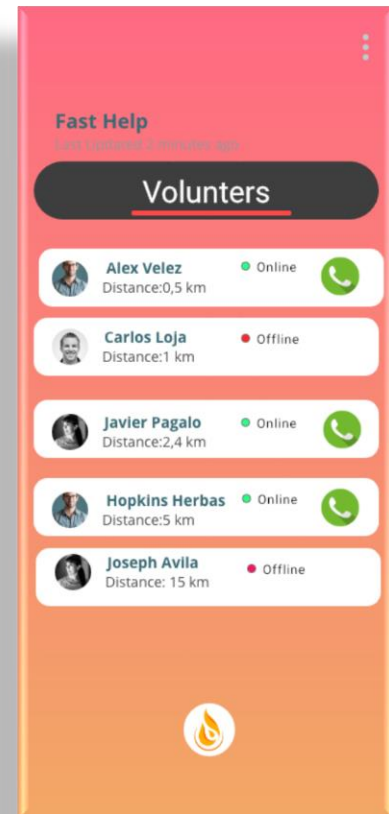


Can I help in another way?

Be a Volunteer

If you want to help in another way and have knowledge of first aid and medical principles, then you have the opportunity to become a volunteer. The application has an option that allows you to register as a medical volunteer in case there is an injured person or person affected by a nearby fire to be able to come to help and safeguard another life.

Volunteers, whether medical students or medical professionals, will have the proper promotion of their work on the web pages related to the application.



Share on social media

Recent Fire is one of the options of our interface, within which you can observe the latest fires reported each with the option to share on Facebook, Twitter and email networks with just one click. It can help to spread out the incident allowing more people to be informed and thanks to the publications, the FireApp community expands.

Help Communicating Fastly

Call the 911 is one of the options of our Interface, with one click on that, you can put the alert on the Emergency Agency.