# HOW DRONES WILL REVOLUTIONISE MEDICAL CARE

# DISASTER RELIEF

**REAL-TIME INFORMATION** 

& MAPPING

### **MATTERNET**

On-demand, Cloud-based delivery platform. Connects a fleet of drones that stop at regular bases to recharge, and can carry payloads of up to 2 kilograms and 4 litres over distances of up to 20 kilometers.

https://mttr.net/

### **CYPHY**

After hurricane Harvey hit the south of the US, the American Red Cross used a CYPHY drone to survey the most badly affected areas. The drone is tethered to a generator, so it can operate for lengthy periods of time.

https://www.cyphyworks.com

#### **ICARUS**

EU research project developing robotic solutions such as unmanned search and rescue tools to assist humanitarian efforts, in particular Urban Search and Rescue (USAR) and Maritime Search and Rescue (MSAR).

http://www.fp7-icarus.eu

**SEARCH & RESCUE** 

**TRANSPORT** 

& DELIVERY OF

**MEDICAL GOODS** 

**DRUG & MEDICATION** 









# **BENEFITS**



**SPEED** 

**REAL TIME** 

**INFORMATION** 



24/7



**WEATHER PERFORMANCE** 



**COMMUNITY EMPOWERMENT** 







**RISK OF INJURY** 

PAYLOAD CAPACITY

LEGAL &

**REGULATION** 

**FUNDING** 

**CHALLENGES** 



**ACCEPTANCE** 

**BATTERY LIFE** 

**PRIVACY & DATA** 

**SECURITY** 

## **ZIPLINE**

In partnership with UPS Foundation and Gavi (Vaccine Alliance), allows health workers at remote clinics in Rwanda to order supplies such as blood and vaccines via text, and deliver them safely by parachute in a designated area in as little time as 15 minutes.

http://www.flyzipline.com

















**TEST AND SAMPLES** 

**SUPPLIES &** 

**EQUIPMENT** 

# **DR.ONE**

Successfully tested the transport of medicines, vaccines, contraception and blood packs from hospitals or labs to health post locations in Ghana. The system is on stand-by and can be activated when required.

https://www.dronesfordevelopment.org/

## **VAYU DRONES**

Operating in Madagascar, those drones fly autonomously to deliver stool and blood samples to the country's central laboratory for testing.

https://www.vayu.us/



# **MEDICAL** CARE



# **Health Integrated Rescue Operations**

The project from the WCU College of Osteopathic Medicine in the US uses a drone to deliver a medical kit containing emergency supplies and Google Glass for video conference capability, allowing first responders to instruct bystanders on how to assist the injured.

https://youtu.be/MQAnjWJ2W9E

## **AMBULANCE DRONE**

This ambulance-drone designed by TU Delft University in the Netherlands offers an integrated defibrillator that can go over 100 km/h, reaching its destination within 1 minute, thus increasing chance of survival from 8 to 80 percent.

http://bit.ly/2uHI6JT

# **FLIRTEY**

Nevada-based startup specialising in autonomous drone deliveries of first aid kits, food, water and emergency medication.

http://flirtey.com/

**ELDERLY CARE** 

**HOME CARE** 























































