Sample Handout – *Robots that fly … and cooperate*

1. Vocabulary

Match the following words with their definitions:

English	Definition
__ aereal	1 the total weight that something can lift as it flies
__ autonomous	2 able to move quickly and change position easily
__ unmanned	3 calculate
__ onboard processors	4 computers inside a vehicle
__ sensors	5 equipment that reacts to changes in the outside conditions
__ figure out	6 in the air
__ scaled down	7 independent, able to make its own decisions
__ agile	8 made smaller
__ obstacles	9 manage to control a problem or do something difficult
__ payload-carrying capacity	10 things that get in the way of something
__ overcome	11 together with other vehicles in a fixed pattern
__ in formation	12 with no people to operate something

2. Lead-in/Orientation

Work in groups. Discuss what you know about remote control aerial robots, sometimes known as drones. Talk about the following points:

- what they look like
- how they fly
- how they are operated
- how big (or small) they are
- their current applications
- their cost
- any problems associated with them

3. Discussion

Work in groups. Discuss the questions.

A

Which aspects of the robots' abilities are most impressive, in your opinion?

B

Vijay Kumar's talk was given in 2012. How do you think the technology has evolved since he gave his talk?

C

What are practical application of the technology do you think is most useful?

D

Vijay Kumar claims that the aerial robots have many real-world applications. Discuss other applications that the technology could have. Use these areas to think of ideas:

agriculture, cartography (map making), communications, construction and architecture, education, emergency services, espionage (spying) and secret services, industry, leisure and entertainment, retail, tourism, transport and logistics