

1. **Cargo delivery.** For example, two giants of Internet commerce, Dominos and Amazon, realized the potential of autonomous light aircraft devices and declared the possibility of their use for delivery of purchases to customers in the near future..

2. **Changing traditional journalism.** Modern journalism is now enhanced by developments in areas such as video recording and photo materials, but the idea of using drones to submit a "picture" from a new perspective and with a previously inaccessible point, lifts journalism to a new level.

3. **Helping search and rescue teams.** Very often, for the search and rescue teams it is difficult to find victims. Moreover, sometimes it is very difficult to get to the affected people. The presence of virtual eyes and ears of the drone can significantly enhance the ability of rescuers and increase the chances of victims to survive.

4. **Crime fighting.** Any society is suffering from the phenomenon of crime, and fighting with it as far as possible. Unmanned aerial vehicles can facilitate the investigation of crimes, increase the effectiveness of preventive measures, providing «managed» monitoring in areas with high criminogenic risk.

Of course, there are just a little number of applications of the quadcopters so far.

As was mentioned above, quadcopters are the future of the ultralight aviation. Therefore, I'd like to show that the need for aircraft with greater maneuverability and hovering ability has led to a rise in quadcopter research. The four-rotor design allows quadcopters to be relatively simple in design yet highly reliable and maneuverable. Research is continuing to increase the abilities of quadcopters by making advances in multi-craft communication, environment exploration, and maneuverability. If these developing qualities can be combined, quadcopters would be capable of advanced autonomous missions that are currently not possible with other vehicles.

Summing up, I can say that quadcopter – is a smart-device whose functionality is extended with innovative technologies in the production process. The modern market is constantly updated, so operators can acquire the technique with any possibilities in various price categories.

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## **FLASH MEMORY CARDS**

As we all know, flash card or memory card used to store information in a digital form. Today they are widely used for different devices, for instance mobile phones, electronic books, laptops, tablets and so on.

We can find a huge assortment of the memory cards to choose on the market ranged from personal memory units to storage devices for huge enterprises. There is a few commonly types: secure digital card and its alternative, the microSD card; Secure Digital High Capacity card; CompactFlash card; Memory StickxD-Picture card; USB card and some others. Most of this types of cards are used for consumer devices, for example: portable digital cameras, mobile phones or tablets. Price of the cards depends on how much memory they can contain.

Everyday we use memory cards, but what do you know about their history? The first removable memory unit, such as the PC card or smart card used in video games area it is also memory cards. But today the modern memory cards are much more comfortable to use because they are smaller, require less energy and have larger amount of available. Therefore, flash cards have a great impact on the production of an increasing amount of pocket devices.

Portable memory storages have few pluses over a hard disk drive (HDD): they are much more smaller and lighter what allows to transport them easy, silent and allow to have urgent access to the memory. That is out of question, that HDD also have advantage: HDD have larger amount of storing memory and it is cheaper than flash cards with same storage.

The biggest amount of portable memory units are able to continuously work and nonvolatile. The values of nonvolatile cards that they can save data in the case of turning off the powering, software bug or other disruption, and also prevents the need of update information on the storage from time to time. Memory cards use solid-state media and have not removable parts, they are less vulnerable to damage.

A specific chip refers to EEPROM it is a chip which consist of a numbers of columns and rows with a cell that has two transistors at each section. Both transistors have a huge role in a work of chip: one of them links to the row through the control gate and because of that the cell has a value of 1. To change this value to a 0 need specific action named tunneling. Using this two values chip writes the data to the flash card in a sequence of 1 and 0. The process of storing data requires balance between two transistors so they are separated from each other by thin oxide layer.

Memory flash cards become better and better so have a huge prospects to develop new technologies for storing the information.

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## **ESSENTIAL ASPECTS OF ALPHA AND BETA TESTING**

The most time-consuming part of the work during the creation of new