Drones

WHAT IS A DRONE?

- Also known as an unmanned aerial vehicle (UAV).
- Flown with no passengers while being controlled from a system on the ground.
- Range from craft built by hobbyists to advanced technology military uses.

TARGET CUSTOMERS

- Design engineers
- Drone hobbyists
- Consumer drone manufacturers
- Commercial drone manufacturers
- Drone subsystems manufacturers
- Military
- Government

DRONE SUBSYSTEMS

Power
- Battery
- Power Connector

Computing
- Board
- Memory
- Sockets

Sensing
- Position
- Humidity
- Temperature
- Pressure

Motor
- Power Connector

Communications
- Antennas
- Signal
- Remote Control
- Input/Output

Camera/Video
- Camera
- Memory

Interconnect
- Wire and Cable
- Identification
- Connectors

Lighting
- Power Connector

IN-THE-KNOW

- The worldwide drones market is expected to reach a value of nearly $6 billion by 2020.[1]
- Commercial drone use is on the rise, with the global market expected to reach $1.8 billion, by 2020.[2]
- Drones are used in the agriculture and industrial sectors, as well as used for firefighting and rescue missions.[1]
- Commercial drones growth is driven by the use of drones to take aerial photographs, as well as use in high-risk and law enforcement application.[2]
- Drones continue to shrink in size while becoming more sophisticated.
- There is a growing demand for increase sensing technology, as well as faster computing and data processing speeds.
- As the consumer smartphone use increases, so does the demand for drones to be controlled from smartphone devices.

DESIGN NAVIGATOR

Inside the Drones solutions guide, the Design Navigator will help you and your customer select the right components based on the unique requirements and operating challenges of the design. TE provides solutions for power, communications, sensing, computing, and more. TE's products can be used in a broad range of operating environments, from commercial drones flown in backyards to military drones that fly thousands of feet in the air in some of the world's most demanding settings.

When consulted early in the electronic design process, this guide can help optimize your end product by guiding product selection in every step of the design. Choosing the right connectivity solution is critical to the efficient manufacturing and assembly of drones.

As the use of drones increases, drones will revolutionize the way that users survey land, fight natural disasters, and deliver products. Designers will find the products they need to bring their ideas to life with TE's comprehensive product portfolio. TE's experience and product breadth positions the company as a leader and a one-stop shop for your drones application needs.

Key Questions to Ask Your Customers

- Do you want to increase technology in your drones systems while maintaining small size and weight?
- Do you face challenges with limited space in your application?
- Does your application require sensing? If so, what is being sensed?
- Is your product a stand-alone device or part of a larger system?
- If your application requires sensing, what additional interconnect solutions might be required for your design?
- How do you protect your system from or mitigate the negative effects of EMI/RFI noise?
- Does your application need protection from harsh environments?
- What federal restrictions or regulations must you comply with when building your system?

[1] http://money.cnn.com/2016/02/15/technology/drone-virtual-reality-tech-trends/
[2] http://www.strategyr.com/MarketResearch/Commercial_Drones_Market_Trends.asp

TE connectivity

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