

M5 Tello 2.0



Science
Technology

Robotics

Engineering

Arts

Mathematics



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Scientific, Technological, Engineering and Mathematical (STEM) matters that mix with Art -> STEAM, and then with Robotics (as a discipline in itself) -> STREAM are an integral part of our contemporary way of life.



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A significant part of our daily activities involves advanced technology to some extent.

As a result, many of our industries rely on technology solutions, which is why the input of STEM experts is essential.

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The drone becomes a teaching tool, which catalyzes attention as a 'flying object' while being in fact a robot.

Disciplines such as mathematics and physics can be addressed. But also digital manufacturing (3D printing, laser cutting, CNC), 3D modeling and electronics.

In a multidisciplinary approach and integrated with school curricula.

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Topics that can be addressed:

- Identify simple concepts of geometry shown and interpreted in the concept and function of a drone by identifying references to mathematical or scientific principles.
- Plan and build the 2D and 3D model of a drone or parts of it. Design drone extensions.
- Acquire basic concepts of photogrammetry.

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Base Course

The Drone - what it is, how it works and what are the main principles.

Drones Regulations - Notions on the rules in force for flying a drone in a public environment.

(drones are not toys!)



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Let's play with the simulator:

- Basic programming concepts.
- Block programming of the drone.

Let's get the drone off the ground:

- Programmed with M5Stack and UIFlow.

Let's apply the drone theory:

- Various exercises, including curricular subjects.
such as mathematics, geometry, physics.

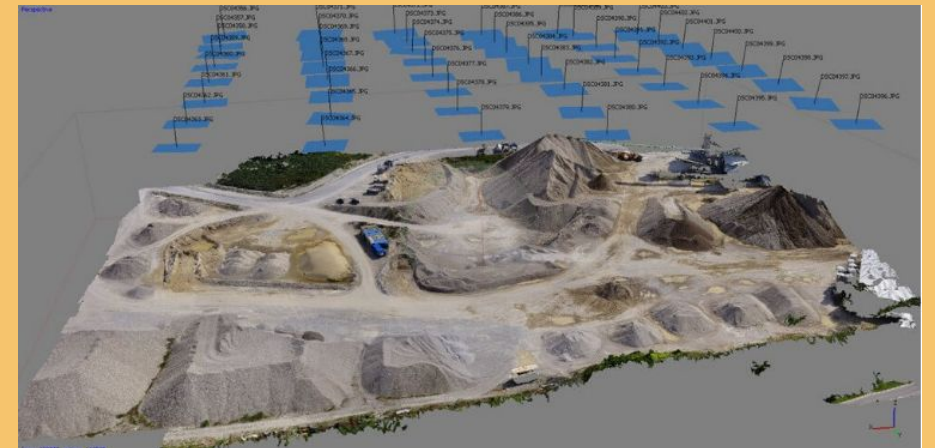
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3D modeling:

- templates and customization for the Tello drone.

Notions of photogrammetry:

- Planimetric photos.
- Process of generating 3D models of objects (statues, monuments).



source: <http://www.aamspi.com/services/aerial-photogrammetry/>

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Electronics and Sensors - Arduino or M5stack

- We add new accessories to the system control (accelerometers), or environmental like (temperature, co2).





OR OFFICINE
ROBOTICHE

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info@officinerobotiche.org



**Officine
Robotiche**



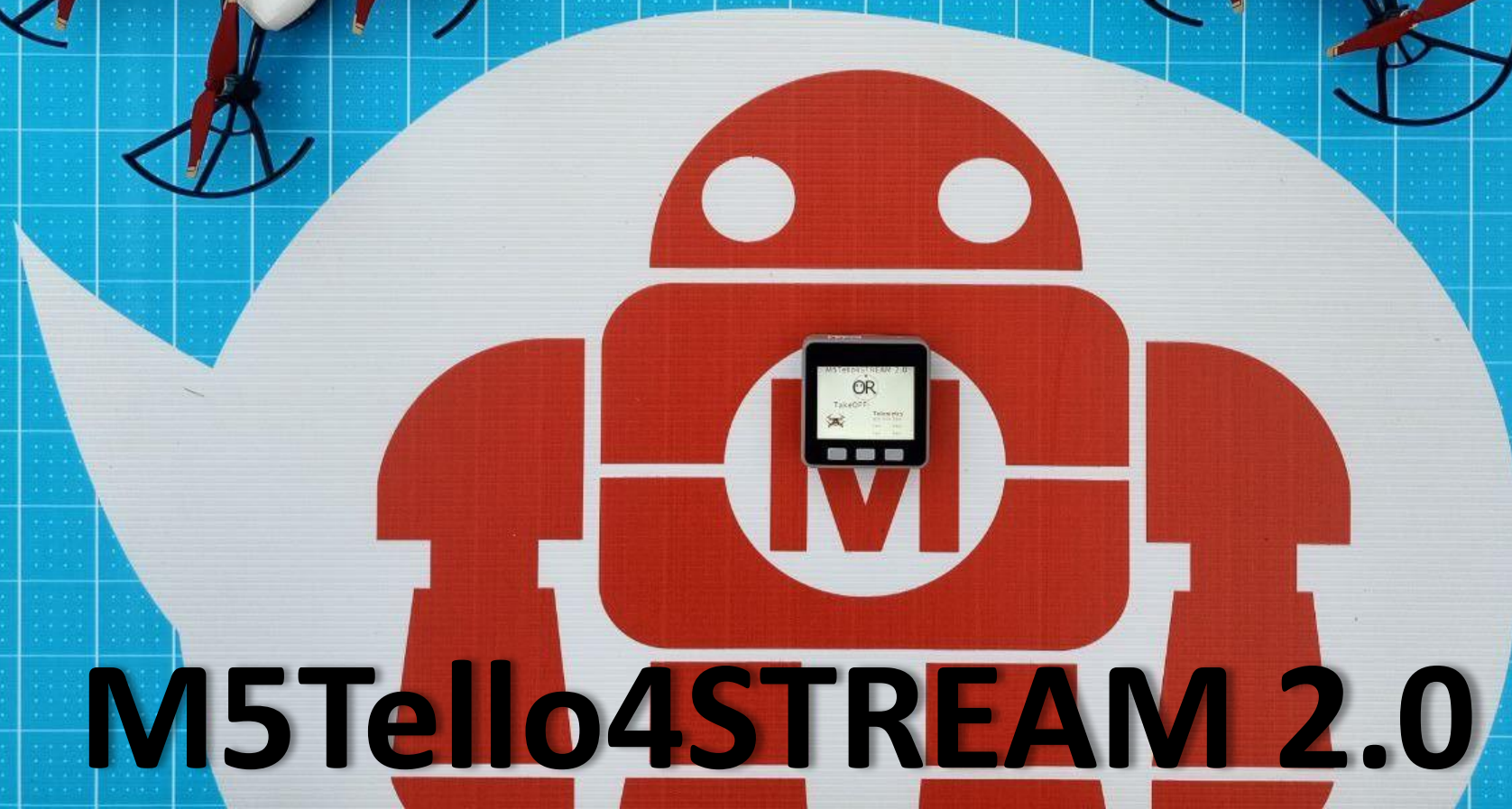
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