# Safety Warnings Quad Rotors
## (Quad-Pilot 2 F.3)

The quad rotor "quad-pilot 2 F.3" is a complicated piece of equipment integrating engineering materials, electronics, mechanics, aerodynamics, high frequency radio and embedded software. ***Correct installation and operation are a must in order to prevent accidents from taking place.*** Operation of the quad rotor should be performed in a safe and responsible manner. Improper operation may result in serious bodily or property damage.

**AeroVinci v.o.f. does not accept any liability for damage and consequent damage arising from the use of the quad rotors, as we have no control over the way they are installed, used and operated.**

**General safety rules for operation:**

1. *Away from obstacles and people:* the quad rotors are highly agile and can move at considerable speed. Therefore it is best to keep them as far away from other people as possible. Also, keep away from obstacles that are either expensive or accident-prone (such as high-tension lines).
2. *Away from humidity:* humidity will affect the quad rotor's electronics and result in unpredictable behavior or a crash.
3. *If not an experienced model pilot, always fly under direct supervision of someone that is experienced*: operating a quad rotor is difficult. Novices should first practice in a simulator and should only control the quad rotor under direct supervision of an experienced model pilot.
4. *Body status*: do not operate a quad rotor if you are tired or in any other sense less acute than normally. Loss of attention can result in crashes and consequential damage.
5. *Away from heat source*: heat may damage the quad rotor and impair subsequent use.
6. *Embedded code*: the "quad-pilot 2 F.3" has been equipped with an FPGA to allow reprogramming of the flight code. Design and implement the algorithms for the FPGA carefully, since small mistakes may lead to erratic flight behavior. Naturally, we assume no liability for any accidents arising from such flight code.
7. *Always check the quad rotor before flight* : during flight, parts vibrate and may loosen, such as little screws, the battery connection, or the propeller-holding nuts. Verify before the flight that there are no loose parts, in order to prevent erratic behavior.

**Pay special attention to:**

- *the rotating blades*: keep them away from other people and do not try to touch them as they can cause deep cuts. Wear safety goggles to prevent damage to your eyes.

- *the LiPo batteries*: if used wrongly they can ignite and even explode, for instance when overcharged. Do not use them outside the range of -20C to 60C, the voltage should never go below 3V per battery cell ***neither should it go above 4.2V per cell during charging***. Avoid serious impact on the batteries and do not use sharp objects on it. Do not shortcircuit the battery's wires by, e.g., cutting them with scissors. Store the batteries at room temperature (19C-25C).
- *the landing rods*: if the quad rotor undergoes a hard impact, the landing rods may break or come off. Again, it is important to keep the quad rotor away from people and wear safety clothes such as safety goggles if possible. The landing rods are made of fiber: do not touch them, since small splinters may come off.