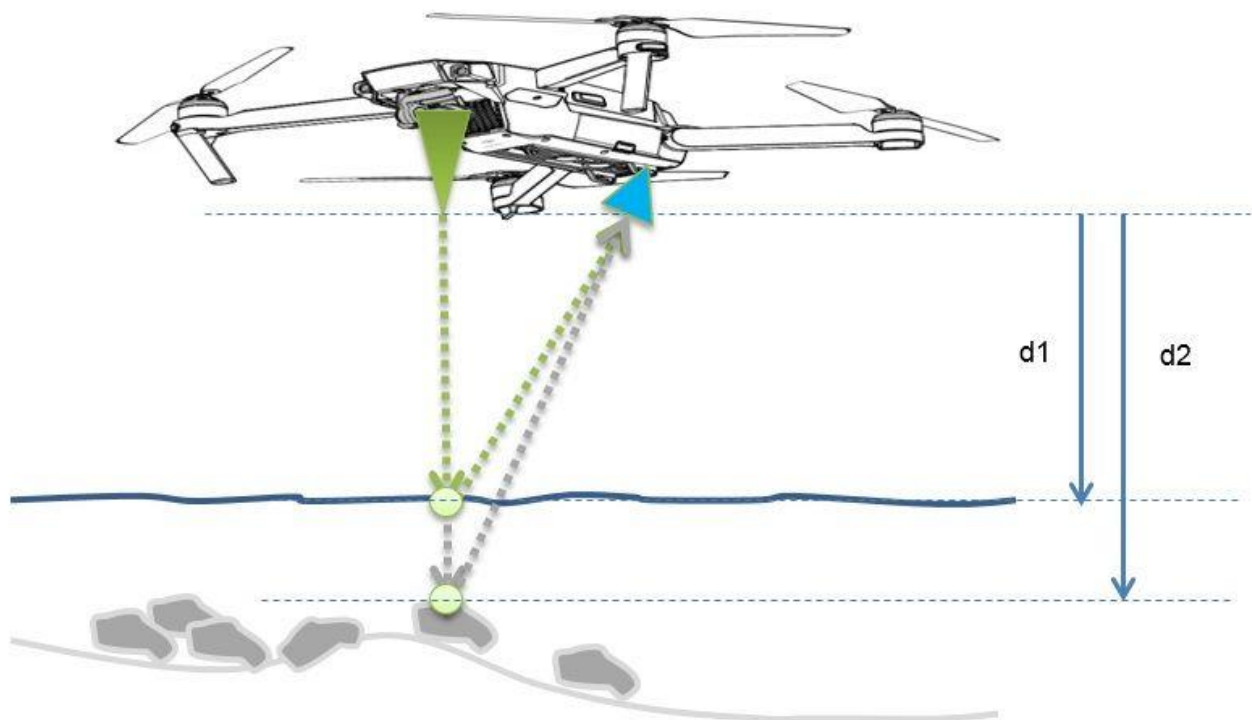


SUPSI

RIVERdept 3000

Low depth river bathymetry drone



The problem

The techniques currently used to map alpine watercourses are not ideal to reach goals in terms of resolution of space, depth accuracy, detection speed, post-processing and costs. Moreover, this type of bathymetry is characterized by situations in which the use of boats with ultrasonic tools is not possible due to the strong intensity of the water current.

The project

The project consists in creating a new low weight instrument based on high resolution, double target green laser triangulation (HRDTGLT) mounted on a light drone specifically designed for mapping alpine-like watercourses with a space resolution of about 20 cm, depth accuracy of 3 cm and high speed detection.

The result

The project can provide a drone with an innovative laser technology that permits to measure the gap between the drone itself and the bottom of the watercourse.

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Funding agency

Innosuisse

Partners

Beffa e Tognacca Sagl
Celio Engineering SA
Lehmann-Visconti Sagl

Research domain

- 1 Constructed environment, natural resources and safety
- 3 Innovative products and processes
- 5 Intelligent systems for knowledge and communication