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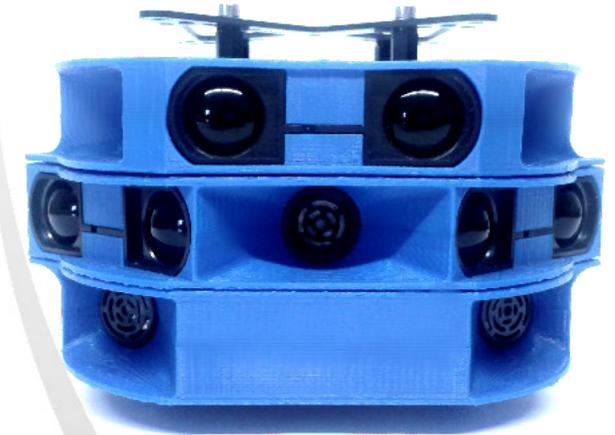
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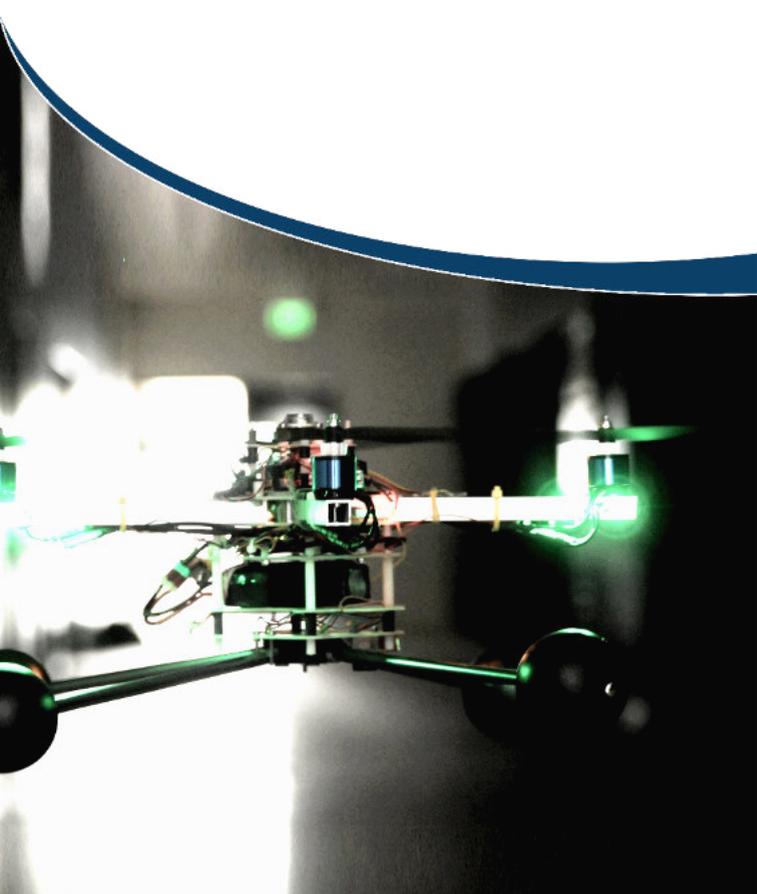


Collision Avoidance Assistant

Modular collision avoidance system for multirotors



Language: english



Modular and simple

The **COLLISION AVOIDANCE ASSISTANT (CAA)** is a modular anti-collision solution for multirotors. It is a Plug & Play extension for flight controllers such as Pixhawk. It can easily be connected and provides your multirotors with the new features of anti-collision and distance controlled flight.

Thanks to the CAA obstacles can be detected and collisions avoided. Thus the risk of collisions, damages and costs can be reduced. New applications arise and the requirements for the pilot and its work load decrease.

The COLLISION AVOIDANCE ASSISTANT is optimized for cooperation with the pilot.



Quadrorotor with integrated CAA UI

Collision Avoidance Assistant UI

The **CAA UI** is the first available, 360°, complementary, PnP, actively-controlled anti-collision solution for multirotors.

360° Obstacle Detection

12 x 40° ultrasonic + 8 x 5° infrared

Complementary Sensor Technology

The CAA UI fuses ultrasonic and infrared sensors for maximal reliability.

Plug-&-Play (PnP)

Thanks to the PnP interface, connecting the CAA UI is a piece of cake. Simply plug in the connector to your flight control, e.g. Pixhawk.

Active Distance Control

The CAA actively interferes in the flight control. A configurable distance between 1m and 2m can be set. This enables and simplifies flights along a wall, facade or other objects with a fixed distance.

Range of sensing

With the integrated sensors, objects in distances from 60cm to 500cm can be detected.

Weight, Size, Voltage and Interface

The weight of the CAA UI is 400g. Its overall dimensions are 14,5cm x 11,5cm x 6,7cm. The CAA works with 5V supply voltage. Further interfaces (TWI / USART) are available on demand.

Individual Collision Avoidance

The detection rate of the sensor system is the core of any anti-collision solution. Thus, the CAA UI combines ultrasonic and infrared sensing technologies to overcome the drawbacks of each technology. E.g. ultrasonic sensors struggle with soft, sound absorbing, surfaces, but can detect glass, while infrared sensors can not detect glass, but soft surfaces. Thus, the reliability of the obstacle detection can be significantly increased, by combining and picking the right sensor technology. This, however, always depends on your individual application and requirement (price, range, coverage, etc.).

Pick the optimal CAA depending on your application

Don't hesitate to ask us for help to select the optimal CAA sensing technology for your needs. Get the best results for your use case. Ranges up to 40m are possible. We provide the following sensing technologies:

- ✓ Infrared
- ✓ Ultrasonic
- ✓ LIDAR
- ✓ 3D ToF
- ✓ Stereovision

Profit from our expertise and the newest anti collision technologies.