

## # The Robotic Stack

- SEE THEIR WEBSITE HERE FOR MORE INFORMATION

In terms of robotic functionality, the Crazyflie packages the **full robotic stack**. After all, the firmware, built on the **FreeRTOS operating system**, is opensource and modifiable. FreeRTOS handles the scheduling of processes and control the flight calculations. This robotic stack includes its own **state estimator, control architecture** and **trajectory follower**, which work out of the box. These algorithms are detailed on the Bitcraze website, and they can be customised at compile time. Note however the **lack of localization framework**, which calls for added modules, or an external localization system. There are two in-house position systems in the Crazyflie ecosystem: the Ultra Wide Band based **LoCo Positioning System** and the **Lighthouse positioning system**, based on HTC Vive. It is also possible to integrate with external positioning systems, for instance Motion Capture systems.

If you are interested in learning more about autonomous drones, please consult this tutorial:

