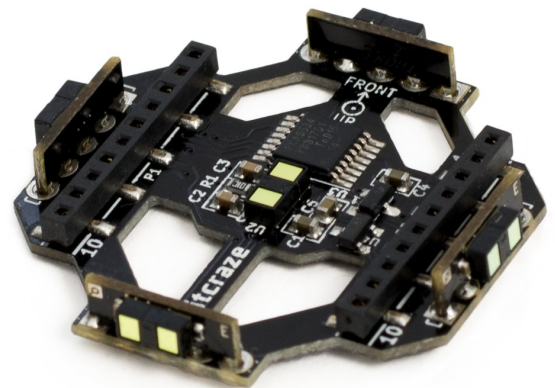


The multi-ranger deck gives the Crazyflie 2.X the ability to detect objects around it. This is done by measuring the distance to objects in the following 5 directions: front/back/left/right/up with mm precision up to 4 meters.

To get the most out of your Multi-ranger it should be paired with a Flow deck, which will measure the movement along the ground and the distance to the ground.



1. Introduction

The multi-ranger deck is equipped with 5 VL53L1x ToF sensors to measure the distance. Each of the sensors are connected to a GPIO extender that can individually reset the sensors.

2. Features

- Fast, accurate distance ranging
- Measures absolute range up to 4m in 5 directions
- Eye safe

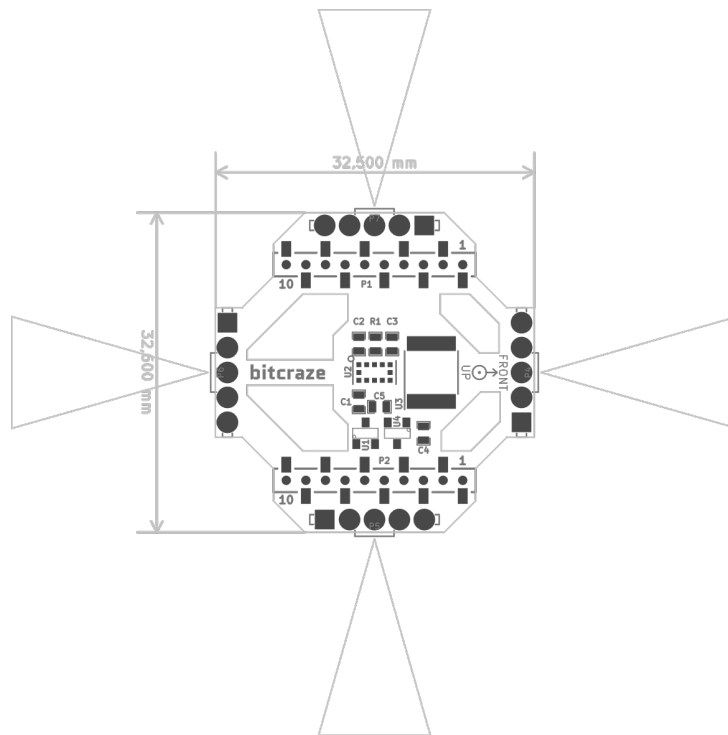
3. Electrical specification

- 5 x VL53L1x ToF sensor to measure distance up to 4 meters within a few millimeters (depending on surface and light conditions)
- PCA9534 I2C IO expander connected to resets of all
- 1-wire memory for automatic expansion deck detection

4. Mechanical specifications

- Weight: 2.3g
- Size (WxHxD): 35x35x5mm
- Designed for mounting on top of the Crazyflie 2.X

5. Mechanical drawing



6. Package contents

- 1 x Multi-ranger deck

7. Errata

8. Hardware revisions

Revision	Comment
E	Initial release

9. History

Version	Comment	Date
1	Initial release	2020-04-01