

# Livox Tele 相关资料文档介绍





Livox Technology 2020/11/30

### Livox官方网站资料



#### Livox 官网链接

https://www.livoxtech.com/

#### Livox 官网资料下载

• 英文: <a href="https://www.livoxtech.com/downloads">https://www.livoxtech.com/downloads</a>

• 中文: <a href="https://www.livoxtech.com/cn/downloads">https://www.livoxtech.com/cn/downloads</a>

#### **Livox Github**

• <a href="https://github.com/Livox-SDK">https://github.com/Livox-SDK</a>

#### Livox Wiki

• 英文: <a href="https://livox-wiki-en.readthedocs.io/en/latest/">https://livox-wiki-en.readthedocs.io/en/latest/</a>

• 中文: <a href="https://livox-wiki-cn.readthedocs.io/zh">https://livox-wiki-cn.readthedocs.io/zh</a> CN/latest/index.html

## Tele系列/Tele series



#### Tele系列雷达常见的技术参数/Basic specifications of Tele

• 英文: <a href="https://www.livoxtech.com/tele-15/specs">https://www.livoxtech.com/tele-15/specs</a>

• 中文: <a href="https://www.livoxtech.com/cn/tele-15/specs">https://www.livoxtech.com/cn/tele-15/specs</a>

#### Tele资料下载中心/Tele document center

- 英文: <a href="https://www.livoxtech.com/tele-15/downloads">https://www.livoxtech.com/tele-15/downloads</a>
- 中文: <a href="https://www.livoxtech.com/cn/tele-15/downloads">https://www.livoxtech.com/cn/tele-15/downloads</a>
- 资料说明/ Description:
  - Tele系列快速入门和用户手册 / Tele quick start guide and user manual
  - 点云特点介绍/Point cloud characteristics
  - Tele 系列3D数模/Horizon 3D model and FOV Shape
  - 相关软件和硬件固件/Related software and firmware

### Tele系列/Tele series



#### Tele快速入门指南(多语言版) / Tele quick start guide(multi-language)

- https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/TELE15/Livox%20Tele-15%20%E5%BF%AB%E9%80%9F%E5%85%A5%E9%97%A8%E6%8C%87%E5%8D%97.pdf
- 资料说明/ Description:
  - Tele机械结构, 安装说明/Mechanical structure, guide for the installation
  - 硬件接口, 电路连接/ Hardware interface, electrical structure
  - Tele基本技术参数/Basic specifications of Tele

#### Tele系列用户手册 / Tele user manual

- 英文: <a href="https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/TELE15/Livox%20tele-15%20user%20manual%20v1.0.pdf">https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/TELE15/Livox%20tele-15%20user%20manual%20v1.0.pdf</a>
- 中文: <a href="https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/TELE15/Livox%20tele-15%20%E7%94%A8%E6%88%B7%E6%89%8B%E5%86%8Cv1.0.pdf">https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/TELE15/Livox%20tele-15%20%E7%94%A8%E6%88%B7%E6%89%8B%E5%86%8Cv1.0.pdf</a>
- 资料说明/ Description:
  - Tele机械结构,安装说明/ Mechanical structure, guide for the installation
  - 硬件接口, 电路连接/Hardware interface, electrical structure
  - 不同工作模式介绍/Introduction of different working mode
  - 时间同步方式介绍/Introduction of time synchronization
  - 点云录制处理, 雷达外参和Livox viewer介绍/introduction of point cloud recording, extrinsic of lidars and software Livox viewer

## Tele系列/Tele series



#### Tele系列常见问题与回答 / Tele FAQ

• 英文: <a href="https://www.livoxtech.com/tele-15/faq">https://www.livoxtech.com/tele-15/faq</a>

• 中文: https://www.livoxtech.com/cn/tele-15/faq

#### Livox Tele数模文件 / 3D model of Livox Tele

• https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/Tele-15 shell FOV 3D.stp

### Livox 上位机 / Livox Software



#### 上位机软件下载 / Livox lidar software download

- Windows: https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/update/Livox%20Viewer%200.10.0.zip
- Ubuntu: <a href="https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/update/LivoxViewer-For-Linux Ubuntu16.04\_x64\_0.10.0.tar.gz">https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/update/LivoxViewer-For-Linux Ubuntu16.04\_x64\_0.10.0.tar.gz</a>
- 资料说明/ Description:
  - Livox Viewer 0.10.0 (64bit) Windows 7 / 10
  - Livox Viewer 0.10.0 (64bit) Ubuntu 16.04 / 18.04

#### Livox Viewer 用户手册 / Livox Viewer user manual

- 英文: https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/update/Livox Viewer User Manual v1.2.pdf
- 中文: <a href="https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/update/Livox Viewer 用户手册 v1.2.pdf">https://terra-1-g.djicdn.com/65c028cd298f4669a7f0e40e50ba1131/Download/update/Livox Viewer 用户手册 v1.2.pdf</a>

### Livox SDK / Ros driver



#### SDK下载链接/SDK download:

- 英文: https://github.com/Livox-SDK/Livox-SDK
- 中文: <u>https://github.com/Livox-SDK/Livox-SDK/blob/master/README\_CN.md</u>
- 资料说明 / Description: 支持Windows 7/10 64bit / Ubuntu 16.04 / 18.04 64bit / Support Windows 7/10 64bit / Ubuntu 16.04 / 18.04 64bit

#### ROS平台的Livox ros driver / Livox ros driver on ROS platform

- Ubuntu: <a href="https://github.com/Livox-SDK/livox\_ros\_driver">https://github.com/Livox-SDK/livox\_ros\_driver</a>
- 资料说明 / Description:
  - 在ROS平台上使用的Livox 雷达驱动的安装和使用指 南 / Livox driver on ROS platform and the installation and user guide

#### SDK通讯协议和数据格式 / SDK Communication protocol and data format

- <a href="https://github.com/Livox-SDK/Livox-SDK/wiki/Livox-SDK-Communication-Protocol">https://github.com/Livox-SDK/Livox-SDK/wiki/Livox-SDK-Communication-Protocol</a>
- 资料说明 / Description:
  - 通讯协议格式 / Communication protocol
  - 同步和时间戳格式 / Time synchronization and timestamp data format
  - 点云数据格式 / Point cloud data format
  - 雷达状态代码参考 / Lidar status code references

## 开源算法/ Open source algorithm



#### Livox\_Mapping

It's a mapping package for Livox LiDARs. The package currently contains the basic functions of low-speed mapping.

https://github.com/Livox-SDK/livox\_mapping

#### Horizon\_Highway\_Slam

It's a robust, low drift, and real time highway SLAM package suitable for the <u>Livox Horizon lidar</u>, which is a high-performance LiDAR sensor built for Level 3 and Level 4 autonomous driving.

• <a href="https://github.com/Livox-SDK/horizon\_highway\_slam">https://github.com/Livox-SDK/horizon\_highway\_slam</a>

#### **Livox-Horizon-LOAM**

It's a robust, low drift, and real time odometry and mapping package for Livox LiDARs, significant low cost and high performance LiDARs that are designed for massive industrials uses. Our package is mainly designed for low-speed scenes(~5km/h)

• <a href="https://github.com/Livox-SDK/livox">https://github.com/Livox-SDK/livox</a> horizon loam

## 开源算法/ Open source algorithm



#### Livox\_Camera\_Lidar\_Calibration

This solution provides a method for manually calibrating the extrinsic parameters between Livox LiDAR and camera, which has been verified on series Mid-40, Horizon and Tele-15.

https://github.com/Livox-SDK/livox\_camera\_lidar\_calibration

#### Livox\_Detection

Livox Detection is a robust, real time detection package for Livox LiDARs. The detector is designed for L3 and L4 autonomous driving. It can effectively detect within 200\*100m range under different vehicle speed conditions(0~120km/h).

• <a href="https://github.com/Livox-SDK/livox\_detection">https://github.com/Livox-SDK/livox\_detection</a>

#### Livox\_Automatic\_Calibration

This technology mainly relies on the isomorphic constraint assumption model of the environment to realize automatic calibration, and only needs to use the original point cloud data of the base LiDAR and target LiDAR.

https://github.com/Livox-SDK/Livox\_automatic\_calibration



## Many Thanks For Your Attention.



