

[Guides](#)[Current](#)[Hardware Reference](#)

# Hardware Reference

## Introduction

This page provides details for hardware developers for future boards to ensure maximum compatibility with Betaflight.

## Target Maintenance #

A hardware developer is responsible for developing, and maintaining, their target within Betaflight. Target files are being separated as much as possible to the main code so as to facilitate this.

## Adding new targets

If you are adding a new flight controller then:

1. Make any PRs against the `master`.
2. Don't change the `travis.yml` or `fake_travis_build.sh` files - these are just for a subset off all builds to check PRs
3. Add page to board section in support describing the flight controller and giving a link to at least one supplier.

## Hardware

### MPU (SPI versus I2C)

### MPU Interrupt

### Blackbox Flash

### MCU

Excerpts from the data sheets / reference manuals that cover possible pin / timer / DMA assignments:

- [STM32F3](#)
- [STM32F405](#)
- [STM32F411](#)
- [STM32F722](#)
- [STM32F745](#)
- [STM32H743](#) (pins only)

## Protocols

### Telemetry

#### IBus

IBus telemetry specification

#### Youtube

- ▶ [Joshua Bardwell](#)
- ▶ [Ivan Efimov](#)

#### Community

- 🗨️ [Discord](#)
- 💬 [IntoFPV](#)

#### Links

- 🌐 [Oscar Liang](#)
- 🌐 [VitroidFPV](#)

#### Feeds

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