PlayGround

Welcome to Silverware wiki

This Wiki should introduce and help in and on a project, RCGroups user silverxxx has started in september 2015. Have a nice reading!

Feel free to leave a comment right at the bottom of the start page.

Lately, there is a readme in this Wiki that provides a short overview of what Silverware is capable of and provides some quickstart infos.

Features:

- Acro mode
- Level mode (switchable via TX channel or gestures, using stock TX)
- Telemetry via Bluetooth using SilverVISE
- Telemetry using a DEVO and Bayang Telemetry Protocol (Telemetry support since the December '16 nightly builds of Deviation)
- Telemetry using Taranis/9X/TH9X
- Brushless motor Driver supporting PWM, PPM, Oneshot and DShot
- Inverted flight possibility on Floureon H101 / Eachine H8**S**
- Well suitable for custom builds, such as different frames, larger motors, Hexas, Brushless. Most compatible boards are known to drive 8520 coreless motors without issues
- PIDs tunable and storable via TX gestures
- Switchable output to switch 'something' on and off during flight via TX (e.g. FPV gear)
- Buzzer support (watch the mod section) for lost quad detection
- ~~2S support for the green and blue H8 boards (don't use 1S brushed motors! For brushless only recommended, you might fry the FETs otherwise!~~Fried a H8mini_blue FC recently myself - perhaps not every batch is able to support 2S. So be WARNED!
- SBUS input support (beta)
- **Dedicated Silverware FC coming soon!**

The quads everything started with

To get you an idea how to flash the boards, just watch the following videos

https://www.youtube.com/watch?v=mVoJgdn_Sak

https://www.youtube.com/watch?v=uBFYGuO5wu0

Silverware CG023 thread (STM32 MCU based)
Github CG023 dual source
Github DHD D1 source acro only (beta)
CG023 firmware wiki page

FAQ

Flashing

Question	**Answer**
“Error, Flash download failed - Could not load file '/.axf”	Project not compiled, go to 'Project → Build Target (or press F7). Errors in code may be causing compilation to fail. Check that the number of errors is zero when compiling.
“No target connected”	Quad not powered on, you need to supply power to the board; either plug the battery, or the serial cable. If powered, check your clk and data connections. This message indicates the computer can't communicate to the quadcopter.
“Unknown target connected”	Wrong chip selected, go to “Project → Options For Target (Alt + F7)”. New window opens, switch to 'Debug' tab and on top right, press “ST-Link Debugger” Settings button. New window opens, switch to 'Flash Download' tab, select the proper chip family, press Remove, then Add, and then select the proper chip.
Internal Command Error. Error: Flash Erase failed - Target DLL has been cancelled“	Your programming wires might be too long. Try to keep them as short as possible.
ST-link USB communication error or similar popup	Disconnect/reconnect st-link from USB. This may also be a special blue board problem. read here
Select device menu grayed out	This is from video, use text instructions from post, or skip the related steps

Firmware settings

Question	Answer
What PWM frequency is the best?	The pwm frequency changes the linearity of the motors (due to their inductance) and as such it can have an effect on flight. For 720 motors 8Khz seems to result in linear thrust. Some 6mm motors are similar. Increasing frequency reduces thrust at low throttle, so it can help with wobbles that occur while descending. 820 motors are still somewhat nonlinear even at 32Khz

Flight

Question	Answer
My quad is drifting in flight	Try the accelerometer calibration: Place the copter on a level surface, throttle low, roll&yaw center, and pitch down three (3) times in quick succession. The LEDs will blink alternating while the calibration is in process.
How do I fly acro without crashing all the time?	*“There is an art to flying, or rather a knack. Its knack lies in learning to throw yourself at the ground and miss. … Clearly, it is this second part, the missing, that presents the difficulties.”*

Where to buy stuff?

STlink, spare props, good quality motors, batteries and so on.

ST-Link V2 Emulator for firmware flashing (banggood)
Silverxxx's rcgroups st-link post

We all no doubt know the joys of the slow boat from China but hey they are cheap and available at Banggood

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