

Example how to setup the Jeti Transmitter:

There are many ways how to setup the Tx to change the the Rotorflight values, as an example I try to describe how I did it.

Normally with a FBL unit you don't need the Trim Buttons, so I'm using them to change the values.

In this description I use them to change the PID values of roll, pitch, yaw and the governor:

		SD	SF		
1	Tr1 (Roll)	0	0	Roll	p-gain
1	Tr2 (Coll)	0	0	Gov	p-gain
1	Tr3 (Yaw)	0	0	Yaw	p-gain
1	Tr4 (Pitch)	0	0	Pitch	p-gain
2	Tr1 (Roll)	0	1	Roll	i-gain
2	Tr2 (Coll)	0	1	Gov	i-gain
2	Tr3 (Yaw)	0	1	Yaw	i-gain
2	Tr4 (Pitch)	0	1	Pitch	i-gain
3	Tr1 (Roll)	0	2	Roll	d-gain
3	Tr2 (Coll)	0	2	Gov	d-gain
3	Tr3 (Yaw)	0	2	Yaw	d-gain
3	Tr4 (Pitch)	0	2	Pitch	d-gain
4	Tr1 (Roll)	0	3	Roll	f-gain
4	Tr2 (Coll)	0	3	Gov	f-gain
4	Tr3 (Yaw)	0	3	Yaw	f-gain
4	Tr4 (Pitch)	0	3	Pitch	f-gain
5	Tr1 (Roll)	1	0	roll	o-gain (HSI)
5	Tr2 (Coll)	1	0		
5	Tr3 (Yaw)	1	0		
5	Tr4 (Pitch)	1	0	Pitch	o-gain (HSI)
6	Tr1 (Roll)	1	1	cross coupling gain	
6	Tr2 (Coll)	1	1	cross coupling ratio	
6	Tr3 (Yaw)	1	1	c. c. cutoff freq.	
6	Tr4 (Pitch)	1	1		
7	Tr1 (Roll)	1	2	Cyclic	Tail Feedf. Gain
7	Tr2 (Coll)	1	2	Coll.	Tail Feedf. Gain
7	Tr3 (Yaw)	1	2	CW	yaw stop gain
7	Tr4 (Pitch)	1	2	CCW	yaw stop gain
8	Tr1 (Roll)	1	3	Cyclic	Gov. Precomp
8	Tr2 (Coll)	1	3	Coll.	Gov. Precomp
8	Tr3 (Yaw)	1	3		
8	Tr4 (Pitch)	1	3	Gov	PID

To change more than 4 values I set up a combination of a 2-point (SD) and a 3-point switch (SF), so you could change at the most $2 \times 4 \times 4 = 32$ values.

But because I'm using the first and the second entry in the adjustments tab of Rotorflight, I could only use 30 values.

The 3-point switch normally has 3 Positions, but I figured out to get 4 Positions. So it makes a difference from which direction you get into the middle Position, the End Points of the switch are always the same.

The 2-point switch I'm using to multiply the 4 Positions by two.

In my example I just use them to change 28 values, (2 entries in RF are still empty) and you can change them individual for every PID-Rate, so in my case I have setup 4 PID-Rates, which are in total $4 \times 28 = 112$ values which I would be able to change.

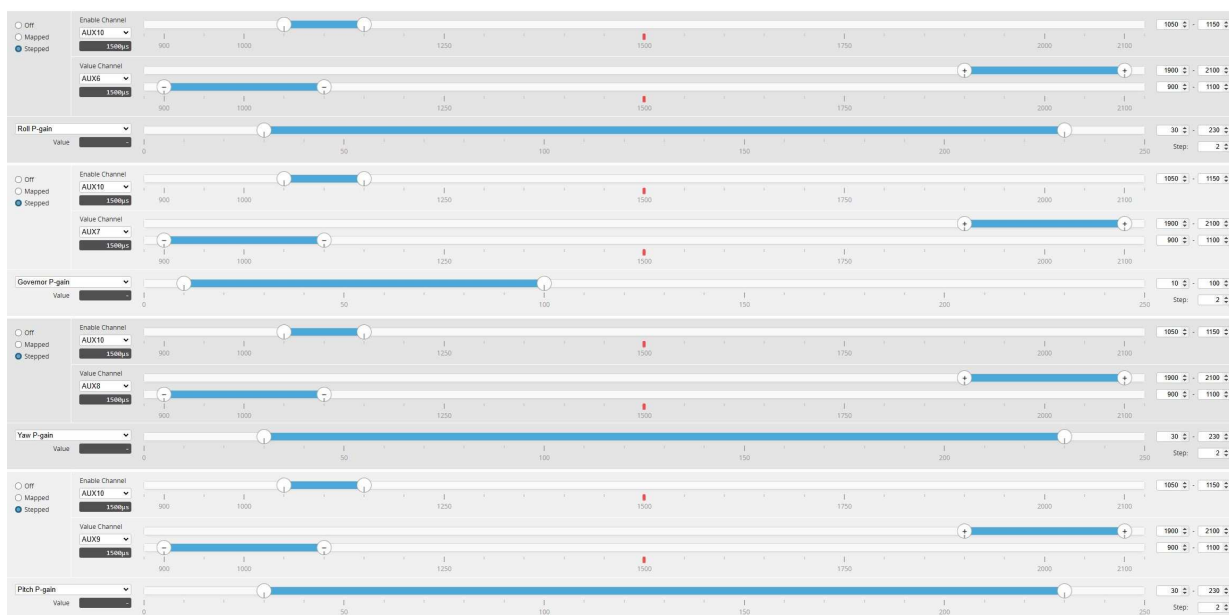
During configuration in Jeti it may not look like the screenshots because they are made as everything is already done, but at the end it should look similar.

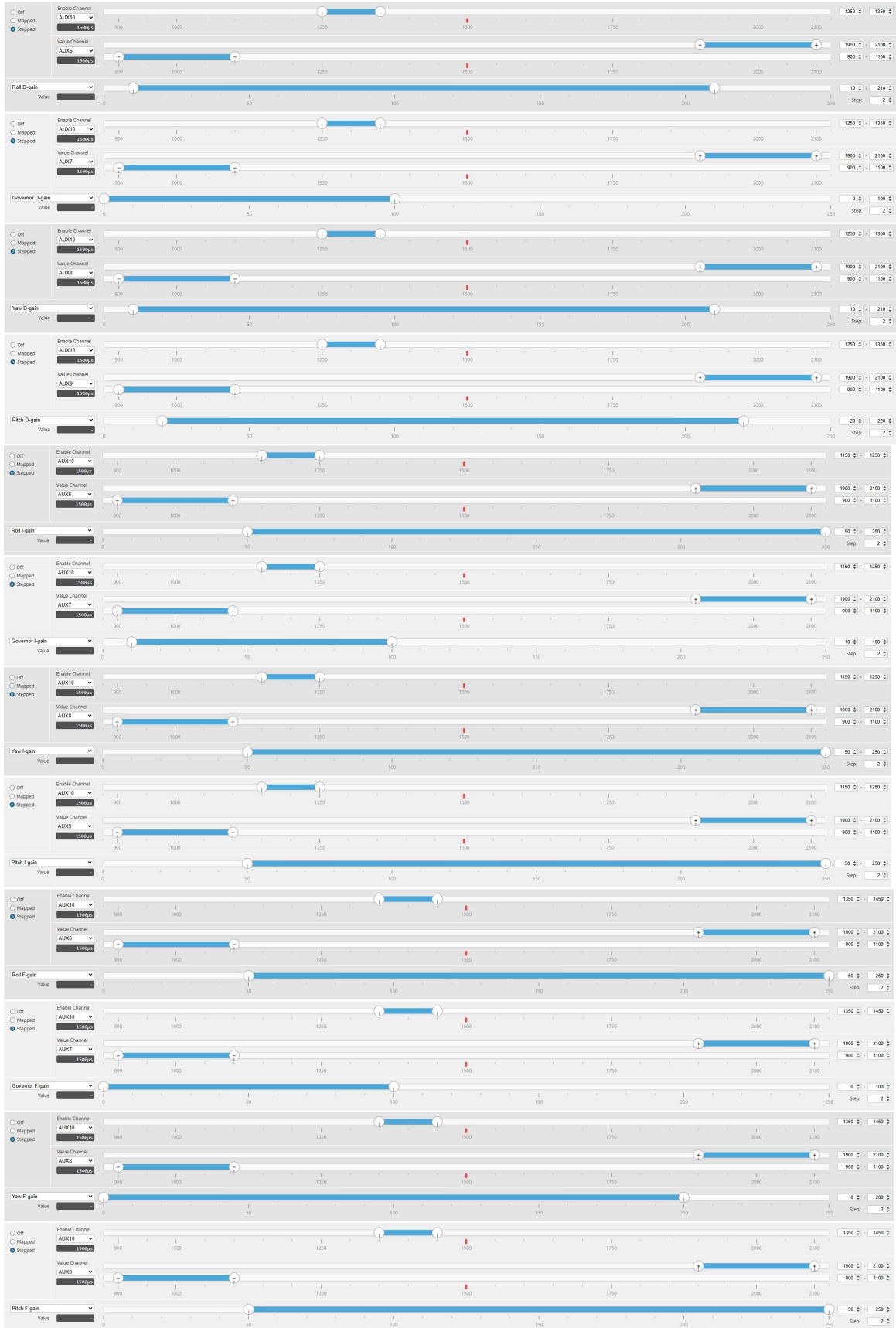
1. Setup Rotorflight:

In my case I'm using the AUX 10 channel to decide which function I would like to change and AUX 6, 7, 8, 9 (assigned to the trim buttons) to change the value itself.

As an example you can load the "Adjustments_2-31_Mode_1.txt" in Rotorflight.

So it should look similar to this:





☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX8
 1500ms

Roll O-gain

Value: 0 50 100 150 200 250

1550 1650

1900 2100

900 1100

30 230

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX8
 1500ms

Pitch O-gain

Value: 0 50 100 150 200 250

1550 1650

1900 2100

900 1100

30 230

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX8
 1500ms

Cross Coupling Gain

Value: 0 50 100 150 200 250

1550 1750

1900 2100

900 1100

0 100

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX7
 1500ms

Cross Coupling Rate

Value: 0 50 100 150 200 250

1550 1750

1900 2100

900 1100

0 100

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX8
 1500ms

Yaw CW Step Gain

Value: 0 50 100 150 200 250

1750 1850

1900 2100

900 1100

50 250

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX8
 1500ms

Yaw CCW Step Gain

Value: 0 50 100 150 200 250

1750 1850

1900 2100

900 1100

50 250

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX6
 1500ms

Governor Cyclic Precomp

Value: 0 50 100 150 200 250

1850 1950

1900 2100

900 1100

10 100

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX7
 1500ms

Governor Collective Precomp

Value: 0 50 100 150 200 250

1850 1950

1900 2100

900 1100

10 100

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX8
 1500ms

Cross Coupling Cutoff

Value: 0 50 100 150 200 250

1650 1750

1900 2100

900 1100

0 50

Step: 1

☒ Off
☐ Mapped
☐ Stepped

No changed

Value: 0 25 40 60 80 100

1650 1750

1900 2100

900 1100

0 100

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX6
 1500ms

Yaw Cyclic Precomp

Value: 0 50 100 150 200 250

1750 1850

1900 2100

900 1100

0 200

Step: 2

☐ Off
☐ Mapped
☒ Stepped

Enable Channel: ALX10
 Value Channel: ALX7
 1500ms

Yaw Collective Precomp

Value: 0 50 100 150 200 250

1750 1850

1900 2100

900 1100

0 200

Step: 2

2. Functions Assignment:

You will need Para-1, Para-2, Para-3, Para-4, ParaGroup and SF:

Tx Motor aus 17:53:27 71%

Functions Assignment

Function	Control	Trim	Trim-Max
8	Para-3	Tr3	...
9	Para-1	Tr1	...
10	Para-2	Tr2	...
11	Arm	Sg	...
12	Flugphase
13	Para-4	Tr4	...

✕ Auto + ✕ Ok

Tx Motor aus 17:54:03 71%

Functions Assignment

Function	Control	Trim	Trim-Max
12	Flugphase
13	Para-4	Tr4	...
14	ParaGroup	U10	...
15	Caps aus	Sg	...
16	Sf	Sf	...

✕ Auto + ✕ Ok

Para-1 to Para-4:

Tx Motor aus 17:54:43 71%

Select Input Control

Tr1

0%

Centr Prop. Rev. Clr Ok

SF:

Tx Motor aus 17:54:27 71%

Select Input Control

Sf

-100%

Centr Prop. Rev. Clr Ok

ParaGroup:

Tx Motor aus 18:04:39 70%

Select Input Control

- Digital Trim >>
- Telemetry Controls >>
- User Applications >>
- Function >>**
- Channel >>
- Flight Modes >>

+ Ok

Tx Motor aus 18:04:17 70%

Select Input Control

U5	Arm	-100%
U6	Flugphase	100%
U7	Para-4	0%
U8	ParaGroup	-80%
U9	Caps aus	-100%
U10	Sf	-80%

+ Ok

Tx Motor aus 17:54:57 71%

Select Input Control

U10

-80%

Centr Prop. Rev. Clr Ok

3. Servo Assignment:

Tx Motor aus 17:44:26 82%

Servo Assignment ?

11	Para-1	12	Para-2
13	Para-3	14	Para-4
15	ParaGroup	16	Caps aus
17	...	18	...
19	...	20	...
21	...	22	...

Auto Ok

4. Digital Trim:

Tx Motor aus 17:56:04 70%

Digital Trim ?

Trim	Function	Value Stored
	3-pos. switch	0% 0%
	3-pos. switch	0% 0%
	3-pos. switch	0% 0%
	3-pos. switch	0% 0%
...	...	0% 0%

← → Trim ✕ Ok

5. Dual Rate:

Tx Motor aus 19:31:31 82%

Dual Rate/Exponential Edit ?

»Sf«

Position 1 - +

Rate 100% 100%

Exponential 0% 0%

Switch L14 ✕ Prop. ✕

DR: 100 Expo: 0

Sym. Clr Apply Ok

Tx Motor aus 19:31:44 82%

Dual Rate/Exponential Edit ?

»Sf«

Position 2 - +

Rate 33% 33%

Exponential 0% 0%

Switch L14 ✓ Prop. ✕

DR: 33 Expo: 0

Sym. Clr Apply Ok

8. Function Curve:

Tx Motor aus 17:57:10 70%

Function Curves

»Sf«

Curve type 3-point

Smooth ☒

Point 1

In	-100%
Out	-80%

← → ↓ ↑ Ok

Tx Motor aus 17:57:16 70%

Function Curves

»Sf«

Curve type 3-point

Smooth ☒

Point 2

In	0%
Out	-60%

← → ↓ ↑ Ok

Tx Motor aus 17:57:20 70%

Function Curves

»Sf«

Curve type 3-point

Smooth ☒

Point 3

In	100%
Out	-40%

← → ↓ ↑ Ok

9. Free Mixer:

Tx Motor aus 17:57:52 70%

Free Mixes

... >> ParaGroup

Master Value	Switch	Curve
100% (0)	Sd <input checked="" type="checkbox"/>	

	- Source +	- Switch +
Delay	0.0s	0.0s

Master Value:

← → ↓ ↑ Ok

Tx Motor aus 17:58:10 70%

Free Mixes

... >> ParaGroup

Master Value	Switch	Curve
100% (100)	Sd <input checked="" type="checkbox"/>	

	- Source +	- Switch +
Delay	0.0s	0.0s

Master Value:

← → ↓ ↑ Ok

Tx Motor aus 17:58:28 70%

Mixer Curve

>>> ParaGroup

Curve type Constant

Smooth ☒

Point -

In	
...	
Out	
...	

← → ↓ ↑ Ok