

## Sample PID settings of actual builds.

### H8 Stock settings:

pid.c:

```
float pidkp[PIDNUMBER] = { 17.0e-2, 17.0e-2, 10e-1 };
float pidki[PIDNUMBER] = { 15e-1, 15e-1, 50e-1 };
float pidkd[PIDNUMBER] = { 6.8e-1, 6.8e-1, 5.0e-1 };
```

angle\_pid.c:

```
float apidkp[APIDNUMBER] = { 2.2e-2, 2.2e-2, 0e-1 };
float apidki[APIDNUMBER] = { 1.0e-2, 1.0e-2, 0e-1 };
```

### H101 improved stock PIDs

pid.c:

```
// Kp
float pidkp[PIDNUMBER] = { 12.0e-2, 12.0e-2, 4e-1 };

// Ki
float pidki[PIDNUMBER] = { 6.5e-1, 6.5e-1, 50e-1 };

// Kd
float pidkd[PIDNUMBER] = { 6.05e-1, 6.05e-1, 4e-1 };
```

angle\_pid.c:

```
// Kp
float apidkp[APIDNUMBER] = { 1.8e-2, 1.8e-2, 0e-1 };

// Ki
float apidki[APIDNUMBER] = { 0.0e-2, 0.0e-2, 0e-1 };
```

```
// Kp
float pidkp[PIDNUMBER] = { 13.0e-2 , 13.0e-2 , 6e-1 };

// Ki
float pidki[PIDNUMBER] = { 8.8e-1 , 8.8e-1 , 3e-1 };

// Kd
float pidkd[PIDNUMBER] = { 5.5e-1 , 5.5e-1 , 0.0e-1 };
```

### JJRC J-1000



- size (between motor shafts): 65mm x 65mm / diagonal 95mm
- 7x20mm motors, direct drive, Hubsan x4 propellers

pid.c

```
float pidkp[PIDNUMBER] = { 11.5e-2, 11.5e-2, 21e-1 };
```

```
float pidki[PIDNUMBER] = { 10e-1, 10e-1, 13e-1 };
```

```
float pidkd[PIDNUMBER] = { 7.0e-1, 7.0e-1, 2.5e-1 };
```

angle\_pid.c

```
float apidkp[APIDNUMBER] = { 1.4e-2, 1.4e-2, 0e-1 };
```

```
float apidki[APIDNUMBER] = { 0.6e-2, 0.6e-2, 0e-1 }; (updated 07/06/2016 - slight modifications)
```

### 8.5mm custom build by Silverxxx

- size: 8cm sides, 11 diagonal
- 8.5x20mm motors, direct drive, DM007 props

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frame:<http://www.thingiverse.com/thing:1221911>

- auw 47g inc. 360mAh 1S and fpv



pid.c

```
float pidkp[PIDNUMBER] = { 17.0e-2, 17.0e-2, 5e-1 };
```

```
float pidki[PIDNUMBER] = { 8e-1, 8e-1, 5e-1 };
float pidkd[PIDNUMBER] = { 6.8e-1, 6.8e-1, 5.0e-1 };
```

```
angle_pid.c ( green board values )
float apidkp[APIDNUMBER] = { 1.8e-2, 1.8e-2, 0e-1 };
float apidki[APIDNUMBER] = { 1.0e-2, 1.0e-2, 0e-1 };
```

```
config.h
#define MOTOR_CURVE_85MM_8KHZ
#define PWM_8KHZ
// software gyro lpf
#define SOFT_LPF_4TH_088HZ
// this is not really necessary, but i think i like it
#define CLIP_FF
```

### 8.5mm Geared Frankenquad Based on WLToys V212

- Frame: WLToys V212 (upgraded V949) 230mm diagonal between the blade shafts (centre of a blade)
- 8.5x20mm motors, geared (1:6 ratio)
- Propellers: Original V212 5,5" size
- AUV: 73gr

```
pid.c
float pidkp[PIDNUMBER] = { 10e-2, 10e-2, 7e-1 };
float pidki[PIDNUMBER] = { 3e-1, 3e-1, 7e-1 };
float pidkd[PIDNUMBER] = { 6e-1, 6e-1, 5e-1 };
```

```
angle_pid.c
float apidkp[APIDNUMBER] = { 1.5e-2, 1.5e-2, 1.2e-3 };
float apidki[APIDNUMBER] = { 4e-2, 4e-2, 1e-2 };
```

```
config.h
#define SOFT_LPF_4TH_088HZ
#define MOTOR_CURVE_85MM_32KHZ
#define PWM_32KHZ
```

### H101 Board in BayangToys X9 Frame

- source: Markus Gritsch  
(<http://www.rcgroups.com/forums/showpost.php?p=35388924&postcount=4041>)
- stock X9 frame and motors
- H101 board
- stock propellers



```
pid.c
float pidkp[PIDNUMBER] = { 12.0e-2, 12.0e-2, 4e-1 };
```

```
float pidki[PIDNUMBER] = { 6.5e-1, 6.5e-1, 50e-1 };  
float pidkd[PIDNUMBER] = { 10.05e-1, 10.05e-1, 4e-1 };
```

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<http://sirdomsen.diskstation.me/dokuwiki/> - **Silverware Wiki**

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