



# Willy Nillies

HOBBIES & CRAFTS

[www.willynillies.com](http://www.willynillies.com)

## P-Wee-250



**LESS THAN 250 Grams!**

**NO FAA REGISTRATION REQUIRED!**

**NO REMOTE ID REQUIRED!**

### Specifications:

Wingspan: 24"

Wing Chord: 6.75"

Wing Area: 162

Fuselage length: 18"

Flying Weight 200-225 grams

Wing Loading: 6.5 to 8 oz/sq ft

Wing Cube Loading: 5.5 to 6.7



### Features:

Laser cut self jigging construction - The entire air frame can be built ready to cover in less than 1 hour!

### Includes:

All wood pieces to build entire air frame  
.032 K&S music wire push rods

Motor mounting screws, blind nuts and washers

Universal Quad motor mount (fits most 1806 motors)

### Recommended Equipment:

Power: 1806 - 2280kv brushless motor  
500 mah 3s lipo battery

minimum 12 amp ESC

6x4 or equivalent propeller

**THIS IS A BETA KIT! NO FORMAL BUILD INSTRUCTIONS HAVE BEEN CREATED YET. WE RELY ON OUR BETA BUILDERS TO SUPPLY US WITH SUGGESTIONS AND FIND ANY MINOR FAULTS. PLEASE CONTACT US WITH ALL QUESTIONS AND SUGGESTIONS!**

### WARRANTY

Willy Nillies guarantees this kit to be free from any defects in both material and workmanship at the time of purchase. This warranty does not cover ANY components or parts damaged by use or modification. In no case shall Willy Nillies' liability exceed the original cost of the purchased kit. Willy Nillies reserves the right to modify or change this warranty without notice.

### LIABILITY RELEASE

In that Willy Nillies has no control over the final assembly or material used for final assembly, no liability shall be assumed or accepted for any damage resulting from the use by the user of the final user assembled product. By the act of using the user-assembled product, the user accepts all resulting liability. If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return the kit immediately in new and unused condition.

### PRODUCT SUPPORT

This product has been designed to function properly and perform as advertised with the SUGGESTED power system, speed control, and servos, as described in advertisements and in this manual. For the proper electronics to complete this model, replacement parts, and product assembly questions, please contact us online at

[www.WillyNillies.com](http://www.WillyNillies.com)

Our aircraft are built from self-jigging interlocking laser cut balsa and plywood parts. It's like a 3D jigsaw puzzle with instructions. Full size plans are NOT included or needed to assemble our kits. If the instructions are read beforehand and followed during the build, our kits can be built up and ready to fly in only 2 to 4 evenings.

We think you'll like the super simple construction and flying qualities of our kits and look forward to any feedback you might have.

Sincerely,  
Douglas Hart  
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**PLEASE VISIT OUR WEBSITE and Builders Group FOR CURRENT BUILD INSTRUCTIONS, VIDEOS AND UPDATES>**

<http://www.WillyNillies.com>

### General Building Tips

Balsa is a lightweight and fragile wood, so you do need to be careful with it; however, you will also need to use a little bit of force to make everything fit properly, so don't be too timid.

Do not remove any pieces from the balsa sheets until they're ready to be used. That way, parts won't get mixed up or disappear.

Join all of your pieces using thin CA (Cyanoacrylate) glue, unless we tell you otherwise. In general, only a small amount of CA is necessary to glue parts together. Use of a capillary tube is HIGHLY recommended.

Don't over force your pieces together. If they aren't fitting together properly, make sure you have the right pieces and they are oriented correctly. If needed, you can lightly sand the part to fit. On balsa "tabs", you can "pinch" the wood with your fingers to get them to fit in slots. (The tabs might be tighter sometimes, due to tolerances in wood thickness)

### Control Throws:

**Elevator:** .875" up and down, measured at the trailing edge immediately aft of the control horn.

**Aileron:** .625" right and left, measured at the trailing edge immediately aft of the control horn.

**Rudder:** As much as you can get.

**NO reflex** on the ailerons are recommended. However, it is fun to experiment with Flaperons!

### **EXPO IS VERY VERY IMPORTANT ON A MODEL LIKE THIS WITH LARGE CONTROL SURFACES!**

we **HIGHLY** recommend setting the Ailerons and Elevator to 25 to 30%% expo to help soften the effectiveness of the controls near center. If don't do this at the high rate control throws it will be nearly impossible for you to control.

**\*\*\* WARNING!!! IF YOU DON'T HAVE EXPO - CUT CONTROL THROWS IN HALF!!! AND DO NOT EXCEED 1.875" CG!!!!\*\*\***

### Center of Gravity:

1. The best all around C of G is at 1.875 inches aft of the leading edge. Yes, this is CENTER of the main spar. Adjust your battery forward or aft to achieve this placement for your first flights **ADD WEIGHT IF YOU HAVE TO IN ORDER TO GET THIS CG!**. After flying and trimming at the recommended CG, you may move the CG back up to an additional .1875". This will give you much better performance for 3d type maneuvers

### First Flights:

1. This model is a very fun, sport type aircraft with a VERY wide speed range. That said, don't be afraid of it! If you have followed our instructions and have set control throws accordingly with proper Center of Gravity, you will be rewarded with a very fun all around aircraft.

### Words of Caution:

1. This is a SMALL plane. KEEP IT CLOSE.
2. DO NOT LAUNCH AT FULL THROTTLE! The torque from the electric motor can roll the aircraft quickly!
- 3..Half throttle and a firm forward throw is all you need to get going.
4. It is highly recommended that you use highly contrasting colors in your finish. Visibility and keeping orientation are very important.
5. Have fun and God bless !

Proverbs 3:5