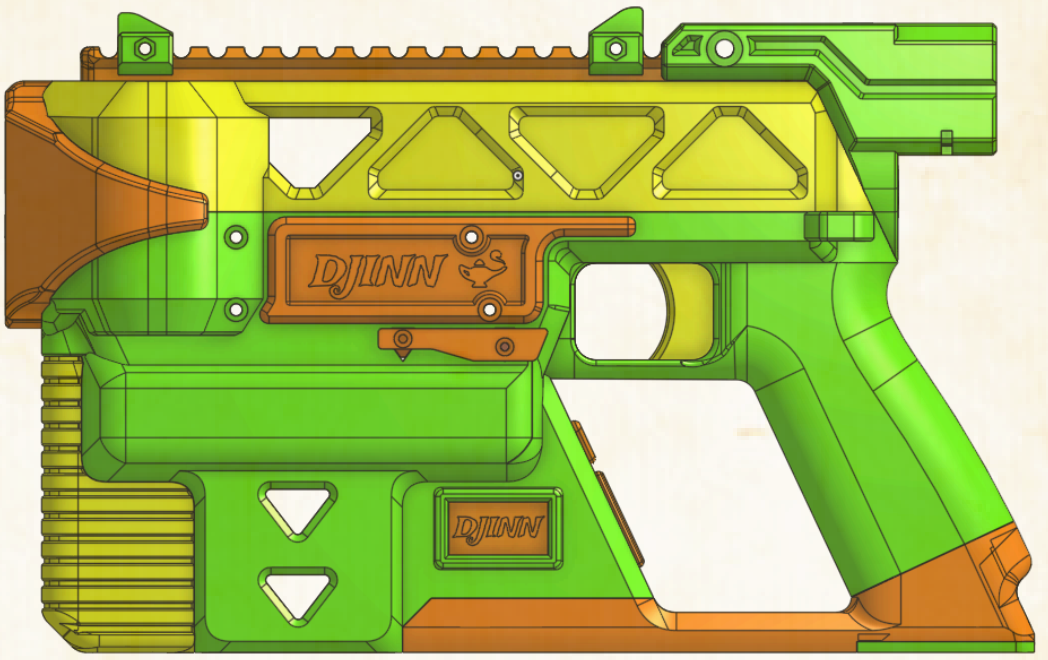
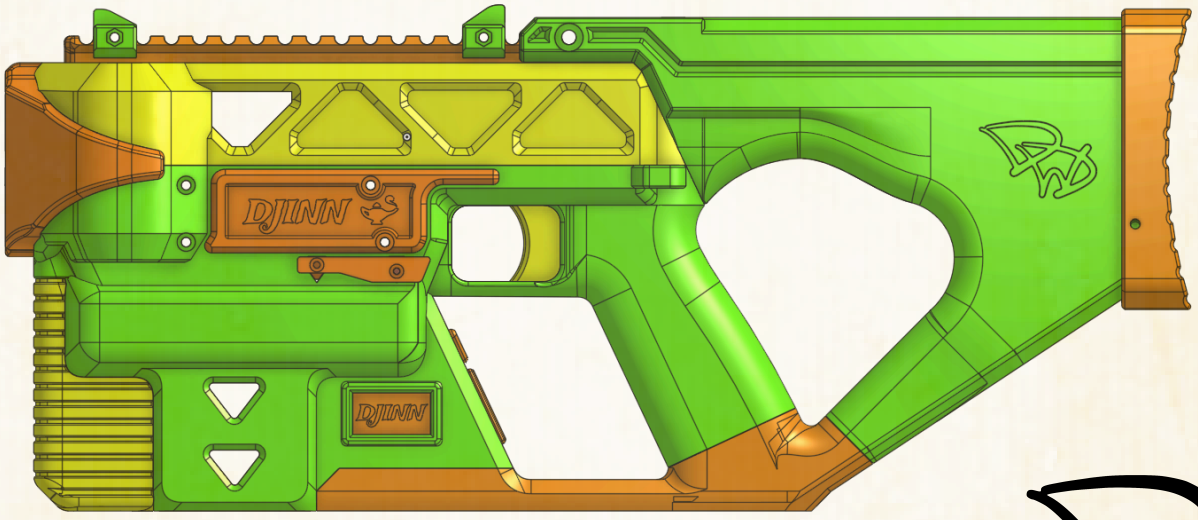


Djinn

A Flycore Foam Dart Blaster
From Detroit Dartworks



NOTE: This is a FLYCORE blaster. You will need to download, print, assemble, and wire the proper Flycore files from OldFusionDesigns to complete this blaster.

Compatible Flycores

Any* straight talon Flycore or straight talon Noidcore **Brushless OR Brushed**

*As of 02-23-24

Required Hardware (NOT INCLUDING FLYCORE HARDWARE)

- 10-12 Heatset Inserts (same kind as used in the Flycore) (11 or 12 if using Thumbhole Stock)
- M3 x 8mm (7-16) - Amount depends on options. See below.
- M3 x 8mm Thumbscrew (1) (for battery door or Thumbhole Stock Buttplate)
- Standard nerf toy screws (10mm) (4-6) (4 for mag release & 2 for screen bracket)

Additional Optional Hardware

- M3 x 10mm (2 per individual sideplate, replaces 2 m3x8mm screws)
- M3 x 16mm (2 per individual fidlock panel, replaces 2 m3x8mm screws)
- M3 x 25mm (2 for ironsights, 2 per fidlock panel, 1 for n-strike stock attachment/Thumbhole Stock (replaces 1 m3x8mm))
- M5 x 30mm & m5 hex nut (1 for n-strike stock attachment/Thumbhole Stock)

Brushless Build Electronics

- Brushless Flycore - (See Talonaxe Brushless Flycore BoM for recommended Components)
- Neutron Solenoid (recommend getting the stronger spring)
- Omron style 15/21 amp microswitch (without lever)

Brushed Build Electronics

- Straight Talon Flycore (n20 or solenoid) (including optional cycle control switch for n20)
- Omron style 15/21 amp microswitch (without lever)
- Cherry db2 style 5/10 amp microswitch (without lever)

Installation

Step 1: Wire & Assemble your Flycore

Wire up the Flycore outside of the blaster, using the printed parts to get a sense of wire lengths. There should be plenty of room inside the blaster so err on the side of too much wire as opposed to too little since some of the wires need to run longer.

Measure out your wire runs:

- Board sits underneath motors in the Board Bay.
- ESCs should be tucked into the motor well underneath the motors.
- Run XT30 through one of the wire channels, through the electronics bay behind the magwell, and through the Battery Door channel into the grip where the lipo will go.
- Run wires for screen and encoder through the other channel into the electronics bay behind the magwell.
- Run solenoid wires and trigger switch wires along each side of the flycore[1]
- Keep in mind that if you install an on/off switch the wires need to go through the rectangular hole inside the handguard so the switch can be soldered and installed.

Step 2: Heatset Inserts

Install heatset inserts in the following locations:

- Lower - 2 in the front for the Muzzle, 1 in the rear of the top for the Upper, 1 in the bottom of the Grip for the Grip Connector, and 1 in front of the magwell for the Board Bay.
- Upper - 1 in the front for the Muzzle, and 3 along the top for the Picatinny Top Rail
- Battery Door: 1 in the battery door
- Thumbhole Stock Top: 1 (or both) on either side of the rear of the Thumbhole stock to secure the Buttplate.

Step 3: Mag Release

Insert Mag Release R and L into the holes on their respective sides of the blaster. Use 4 toy screws to secure Mag Release together.[2]

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[1] I removed the flycore channel columns to help with this. You just need to be sure wires aren't pinched upon installation of the flycore.

[2] Use all 4 screws as they provide extra rigidity to prevent the mag release from flexing.

Step 4a: Install Switch and Trigger into Triggerpack (BRUSHLESS)
Place the microswitch into the recess with the button facing the trigger. Place the trigger in front of it. Place the other side of the triggerpack in place and then insert the triggerpack into the Lower.

Step 4b: Install Switches and Trigger into Triggerpack (BRUSHED)
Insert a 5x25mm spring into the recess in the back of the trigger and seat it on the nub in the triggerpack. The 15/21 amp microswitch sits in the upper recess with its button facing away from the trigger while the 5/10amp microswitch button should be secured to the triggerpack with 2 toy screws (from the outside of the triggerpack) with the button facing towards the trigger.

Step 5: Guts
Insert the board into the front compartment, run the wires as covered in Step 1. Set the ESCs above the board under each respective motor, and place the flycore into the blaster (you may need to depress the mag release or place the core slightly to the rear of the release and slide it forward into place). Once the core is in place, use 8 m3x8 screws to secure the flycore.

Step 6: Install Electronics in the Electronics Bay
I recommend installing the encoder knob first. I secure it in place with 2 6mm nuts (I 3d printed mine), one on the inside as a spacer and one on the outside to clamp it. Then insert the knob cover.
Put the power switch into place, making sure the lipo leads have enough length to reach comfortably through the battery door channel and into the grip. Last, slip the screen into its slot and secure it with the Screen Bracket and 2 toy screws.

Step 7: Secure the Board Bay
Once all peripheral electronics are installed and everything is plugged in properly to the board, slip the board into the Board Box Foregrip and slip it into place on the blaster, being sure not to pinch any wires. Secure the Board Bay Foregrip via the plastic tab at the top and an m3x8mm screw at the bottom.

Step 8: Attach Upper
Place the upper on top of the lower. Be careful not to pinch the solenoid or switch wires. Use a single m3x8mm screw to secure the back of the Upper in the rear screw hole. (If using the N-Strike stock adapter or the Thumbhole Stock, substitute an m3x25mm screw and attach the Nstrike adapter or Thumbhole Stock Top before attaching the Upper and Lower.

Step 9: Attach muzzle
Slide the muzzle down over the front of the Upper and use 3 m3x8mm screws to secure it to both the Upper and Lower.

Step 10: Attach Rail
If using the Upper Rail and Top Picatinny, use 3 m3x8mm screws in the 3 holes on the picatinny rail to secure it in place. Be sure to orient the rail correctly so that the holes line up (the middle hole is not centered on the length of the rail).

Step 11: Grip Connector & Battery Door
Ensure your power leads are plugged in inside the electronics bay and few through the Grip Connector. Set the front of the Grip Connector on the notch behind the magwell and then put it into place.Secure it with an m3x8mm screw.
Place the Battery door and secure it with an m3x8mm thumbscrew.

Step 12: Pew Pew Pew!

Installation of Optional Parts (continued on next page)

N-Strike Stock Adapter:
Remove the m3x8mm screw at the rear of the Upper. Slide the N-Strike Stock Adapter over the rear of the picatinny rail. Secure the N-Strike Stock Adapter with a m5x30mm screw and hex nut through the Picatinny Rail, and replace the removed m3x8mm screw in the rear of the Upper with an m3x25mm screw through the N-Strike Stock Adapter and Upper, into the Lower.

Thumbhole Stock:
Remove the m3x8mm screw at the rear of the Upper. Replace the Grip Connector & Battery Door with the Thumbhole Stock Bottom. Route the wires for the battery from the electronics bay through the Thumbhole Stock Bottom and Top. Slide the Thumbhole Stock Top into position on both the Thumbhole Stock Lower (being sure not to pinch the wires) and onto the rear of the blaster and picatinny rail.
Use a m3x8mm screw to secure the Thumbhole Stock Bottom to the grip of the Lower. (Be careful as the wires for the battery run through this channel, so be sure they are to the side of your screwdriver.)
Secure the Thumbole Stock Top using a m5x30mm screw and hex nut through the picatinny rail and an m3x25mm screw through the Top, Upper, and into the Lower.
Attach the Thumbhole Stock Buttplate to cap the battery compartment with an m3x8mm thumb screw.

Iron Sights:
Attach the Front and Rear Iron Sights with 2 Iron Sight Clamps and 2 m3x25mm screws and hex nuts to the picatinny rail.

Electronics Inserts:
Encoder Knob Insert: Use in conjunction with either the Encoder Nut (if you still want a power switch) or the Power Switch Insert. Encoder Knob insert threads into either part, leaving the triangle on the outside of the shell.
Power Switch Insert: Use in conjunction with the Encoder Knob insert for brushed builds with no power switch. Insert the Power Switch Insert from the inside and secure it in position with the Encoder Knob insert (from the outside)
Screen Inserts: Replaces the microviewer screen. Retain with the screen bracket used for the screen.
Slim Power Switch Insert: Used for the slim style power switches. Press fit the slim power switch into the flared side of the insert, then press fit the insert and switch into the Lower from the outside.

Side Plates:
Replace the 2 rear m3x8mm screws retaining the flycore with m3x10mm screws through the Side Plate.

Fidlocks:
Install the medium fidlocks into the threaded holes in the Fidlock panel before installing the panel onto the blaster. Replace all 4 m3x8mm screws on whichever side you want to mount the fidlocks that are retaining the flycore with m3x25 in the front holes and m3x16 in the rear holes through the Fidlock panel.

Encoder Locks:
These are installed to create a “Tournament Lock” solution. Which prevents the encoder knob from rotating (no scrolling in the menu or adjusting power levels on the fly) while still allowing it to be “clicked” to switch between firing modes. To install, remove the Encoder Knob cover, slide the Encoder Lock Cover over the encoder shaft and tighten down onto the threaded portion of the encoder shaft to the point that the captive button is flush against the encoder shaft but not depressing it.

Printing Guide

Lower needs supports on the underside overhangs, trigger well, and the hole for the screen on the side of the electronics bay. Motor wells should bridge fine with no supports, but they can be added there if needed. Grip Connector needs supports under the edges around end where the battery door goes.
Everything else should print support free.