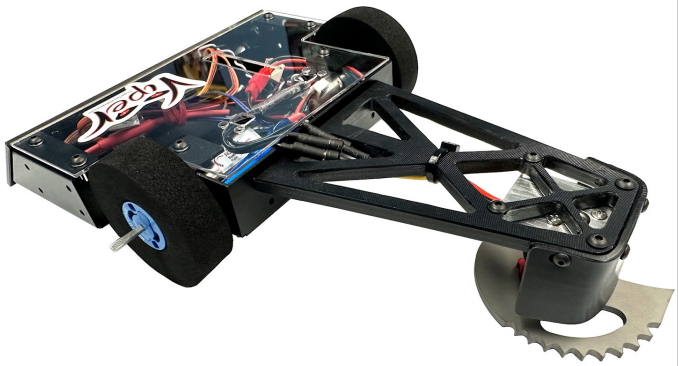
FINGERTECH ROBOTICS

VIPER TAIL SPINNER ADD-ON



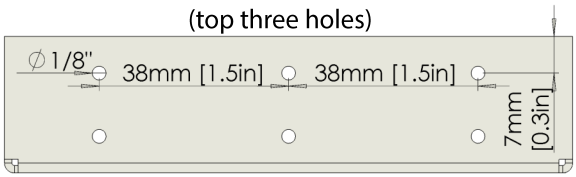
Kit Includes:			
1	UHMW Tail Arm	4	6-32 x 1/4" Screws
1	UHMW Motor Guard	4	6-32 x 1/2" Screws
1	F2822 Brushless Motor	3	4-40 x 1/2" Screws
1	20A Brushless Controller	4	4-40 x 3/8" Screws
1	Angled Motor Mount	3	M2x12 Phillips Screws
1	Blade Mount	4	M3x5 Phillips Screws
1	3.5" Titanium Blade	1	1/16" Hex Wrench
1	UHMW Front Armor		

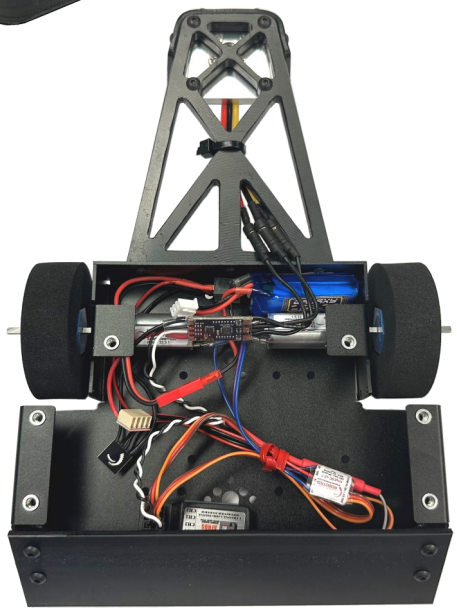
Not Included:			
-	Twist-ties / Zip ties	-	Phillips Screwdrivers #1, #2
-	5/64" Hex Wrench (came with your Viper kit)	-	Safety Clamp
-	Threadlock liquid (medium strength)		

This robot kit can be dangerous if not used properly. Never spin the blade outside of an arena or safety enclosure. If testing the motor, remove the blade.

1. Remove the top and front armor from your Viper kit.
2. Mount the Brushless Motor to the Angled Motor Mount using four M3 Phillips Screws and threadlock liquid.

3. Fasten the mounted motor to the UHMW Tail Arm using four 6-32 x 1/2" Screws, threadlock, and a 5/64" hex wrench.
4. Plug the Brushless Controller into the Throttle channel (Ch3) of your receiver with black wire towards the edge.
5. Plug the red/black wires of the Brushless Controller into the red/black terminal blocks of your Viper.
6. Mount the assembled UHMW Tail Arm onto the Viper chassis using three 4-40 x 1/2" Screws.
   *Older Vipers won't have these three rear holes. Mark and drill them to match this diagram:





7. Plug the three Brushless Controller output wires into the Brushless Motor.
8. Secure the three motor wires to the arm. A twist-tie or zip tie can be helpful. The wires can sandwich between the baseplate and lid as shown, or you can drill a new entry hole for them in the rear of the Viper if you are worried about overhead attacks.

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9. Clamp the UHMW Motor Guard 2cm (3/4") from the end and bend it over 90 degrees. Repeat with the other side. The plastic will spring back and should then line up nicely with the shape of the UHMW Tail Arm.

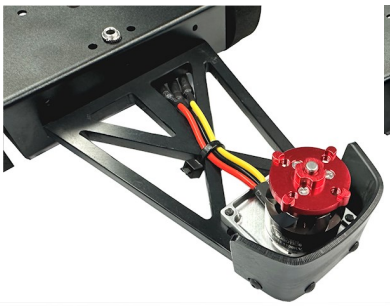
10. Secure the bent UHMW Motor Guard with four 4-40 x 3/8" Screws and a 1/16" hex wrench. Install the two middle screws first. The two side holes are slotted to make it easier to pull the sides tightly against the UHMW Tail Arm.

11. With wheels off the ground, power on the transmitter and robot. The Brushless Controller plays three musical tones then beeps twice (low, high) to indicate everything is ready. If you don't hear the second (high) tone, it is because the transmitter throttle stick is not safely all the way down.

12. Move the throttle stick up until the motor spins. Notice the direction so you know which orientation to mount your blade. If you want to reverse the direction, swap any two of the three motor wires. Power off the robot and transmitter.

13. Reattach the top clear armor and UHMW front armor panels. Do not use threadlock on the top plastic - it will weaken and crack it!

14. Attach your Blade Mount to the Brushless Motor using three M2 x 12mm Screws, threadlock and a #1 Phillips screwdriver. (Let the threadlock cure before spinning the weapon or it will spray everywhere.)



15. Secure your 3.5" Titanium Blade to the Blade Mount using four 6-32 x 1/4" Screws, threadlock, and the 5/64" hex wrench.

16. Use a small clamp to secure the weapon whenever it is not inside the arena. Remove only once the transmitter and robot are powered up and communicating properly.

17. All done! Use this spinner to destroy your opponents. Absorb their attack with your front armor then whip the tail around to impact their side!