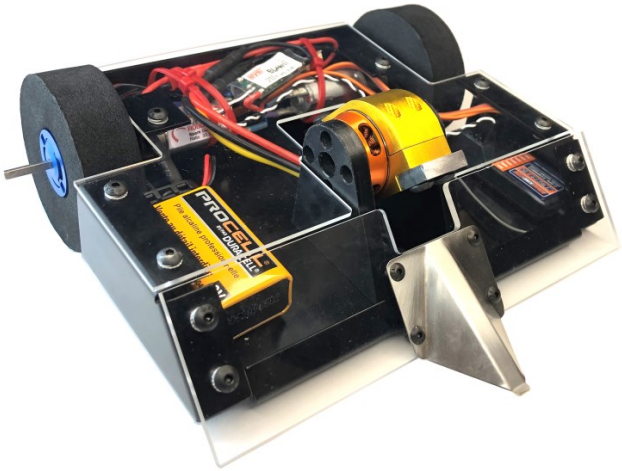
FINGERTECH ROBOTICS

VIPER VERTICAL SPINNER ADD-ON

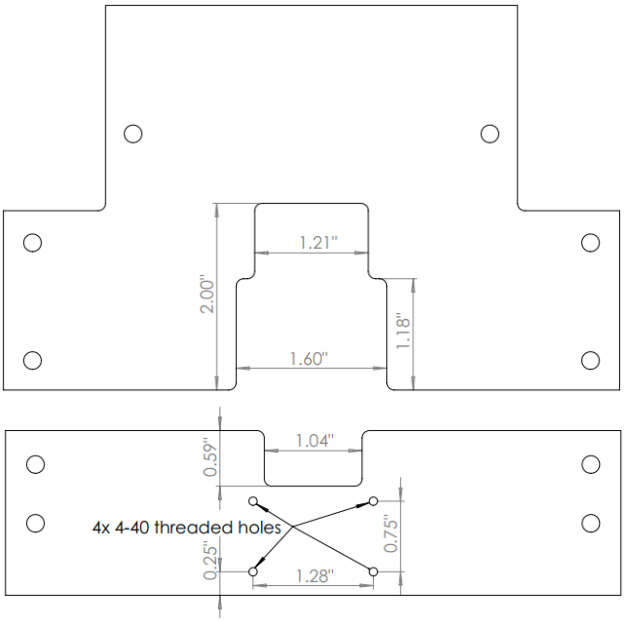


Kit Includes:			
1	D2822 Brushless Motor	2	Clamping Drum Half
1	20A Brushless Controller	2	AR400 Steel Teeth
2	Motor Upright Mounts	1	Angled Steel Wedge
1	4mm Roller Bearing	4	M3x5 Phillips Screws
4	4-40 x 0.375" Screws	4	4-40 x 0.25" Screws
4	8-32 x 0.75" Screws	1	1/16" Hex Wrench
		1	3/32" Hex Wrench

Not Included:			
-	Twist-ties / Zip ties	-	Phillips Screwdrivers #1, #2
-	5/64" Hex Wrench (came with your Viper kit)	-	Safety C-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 and modify it as shown. (Pre-cut sets are available on our website.)



2. Mount the Brushless Motor to one Motor Upright Mount using four M3 Phillips Screws and threadlock liquid. Have the wires point downward. The Upright is flexible so tighten the screws just until they are snugged tight.

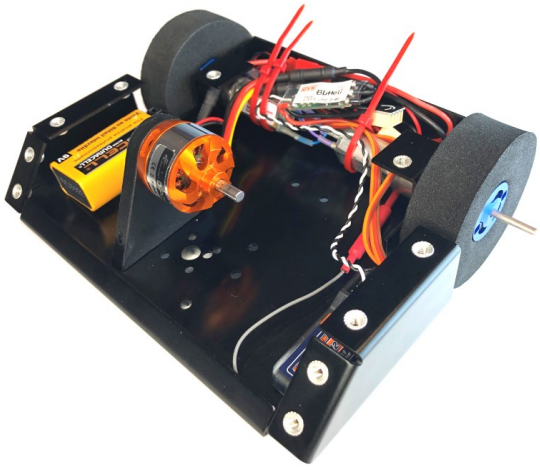
3. Mount the Upright to the Viper chassis using two 4-40 x 0.375" Screws, threadlocker, and the 1/16" Hex Wrench.

4. Plug the Brushless Motor 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. Plug the three Brushless Controller output wires into the Brushless Motor.

7. Secure the Brushless Controller. Make sure to keep all wires far away from the spinning parts. Twist-ties / zip ties can be helpful.

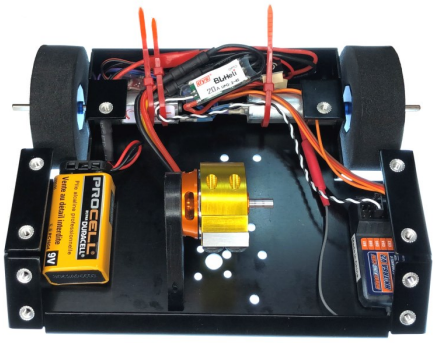


Visit www.FingerTechRobotics.com for more upgrade ideas!

9. 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.

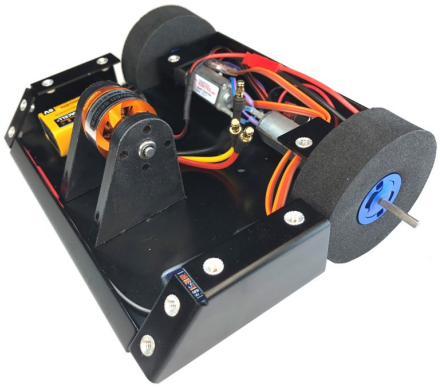
10. Move the throttle stick up until the motor spins. Check the direction. If it does not spin upward at the front, swap any two of the three motor wires and the direction will reverse. Power off the robot and transmitter.

11. Loosely assemble the Clamping Drum Halves with AR400 Steel Teeth using four 8-32 x 0.75" Screws and the 3/32" Hex Wrench. Use threadlock on the screws so they can't vibrate loose.



12. Slide the Drum assembly over the Brushless Motor body and tighten the four 8-32 Screws. Make sure not to clamp onto the stationary part of the motor. (Let the threadlock cure before spinning the weapon or it will spray everywhere - threadlock ruins polycarbonate!)

13. Press the 4mm Roller Bearing into the second Motor Mount Upright and attach it to the Viper chassis using two 4-40 x 0.375" Screws and the 1/16" Hex Wrench.



14. Attached the Angled Steel Wedge using four 4-40 x 0.25" Screws. Reattach the top and front armor panels. Do not use threadlock on plastic—it will weaken and crack it!

15. Use a small C-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.

16. All done! Use this spinner to destroy your opponents!