What is the best glue for repairing the expanded polystyrene?

Hi,

I have used the AR drone twice and have already caused significant damage to the expanded polystyrene - the piece the camera fits on has all but snapped off.

I have made the mistake of using polystyrene cement on it which DOES NOT work. This glue is meant for high density polystyrene; the cement melts lower density stuff.

I've had a look around and people seem to suggest all sorts of glues: epoxy, copydex, foam-safe superglue, etc...

Has anyone experimented and have a definitive answer?

Post Answer

Richard, I have NOT repaired any of the little drones :-) but here is a great read about the properties and the repair. Now if that is to much ;-) what I have done in the past to repair any polystyrene is to go to a model builder/kit builder store. Those places have the proper adhesive for your situation. Remember whenever you do a repair on it, you are dealing with nothing else but a styrofoam cup material. So if you are not sure about what to use, do not test it on your drone. Test it on a styrofoam cup, its a lot cheaper. PITA to control, is it?.....Good luck and I hope it gets fixed soon!

oldturkey03

I can tell you from personal experience... I have crashed the crap out of mine because I don't really care...hehe... Anyways.... one word will help not just you but the WORLD!!! GORILLA GLUE (multi-purpose) ... a small bottle of it from the local drug or hardware store should cost less than $5 and I have made MAJOR HULL BREAK repairs (over 7 of them) and even used it to 'fill' in all the missing chunks taken out from the props on the inside of the indoor hull which I enjoy flying outdoors because it PHREAKZ people out more...and of course makes the more expensive parts not as vulnerable...BAM! There it is and to the entire AR DRONE community!!! KEEP FLYING AND YOUR WELCOME!!!

kirbydooo

I almost forgot the most important part....ORIGINAL weight of the AR Drone with standard battery and indoor hull is appx. 433 grams...just shy of a pound. Weight AFTER over 40 repairs and 1/4 of a small bottle of GORILLA GLUE spread throughout the entire hull... 439 grams... it's a no brainer and its TOUGH and it EXPANDS and it

http://www.ifixit.com/Answers/View/51673/What+is+the+best+glue+for+repairing+the+expanded+polystyrene
HARDENS!!! I do have to mention though that it does expand quite a bit so you should use it sparingly and smear it all around into the actual gaps in order for it to take a proper grip as it will sometimes chip off. I also had to use my cordless rotary tool grinder to smooth out any glue (looks like spray foam gap sealer when dry) after it dried and expanded in the areas where the hull makes contact with the DRONE...including and especially the CAMERA tuner as the smoothness is important for many things that are irrelevant here. Again, have a great day flying this lovely device...I am!

Edited by kirbydoo (Dec 28 2011)