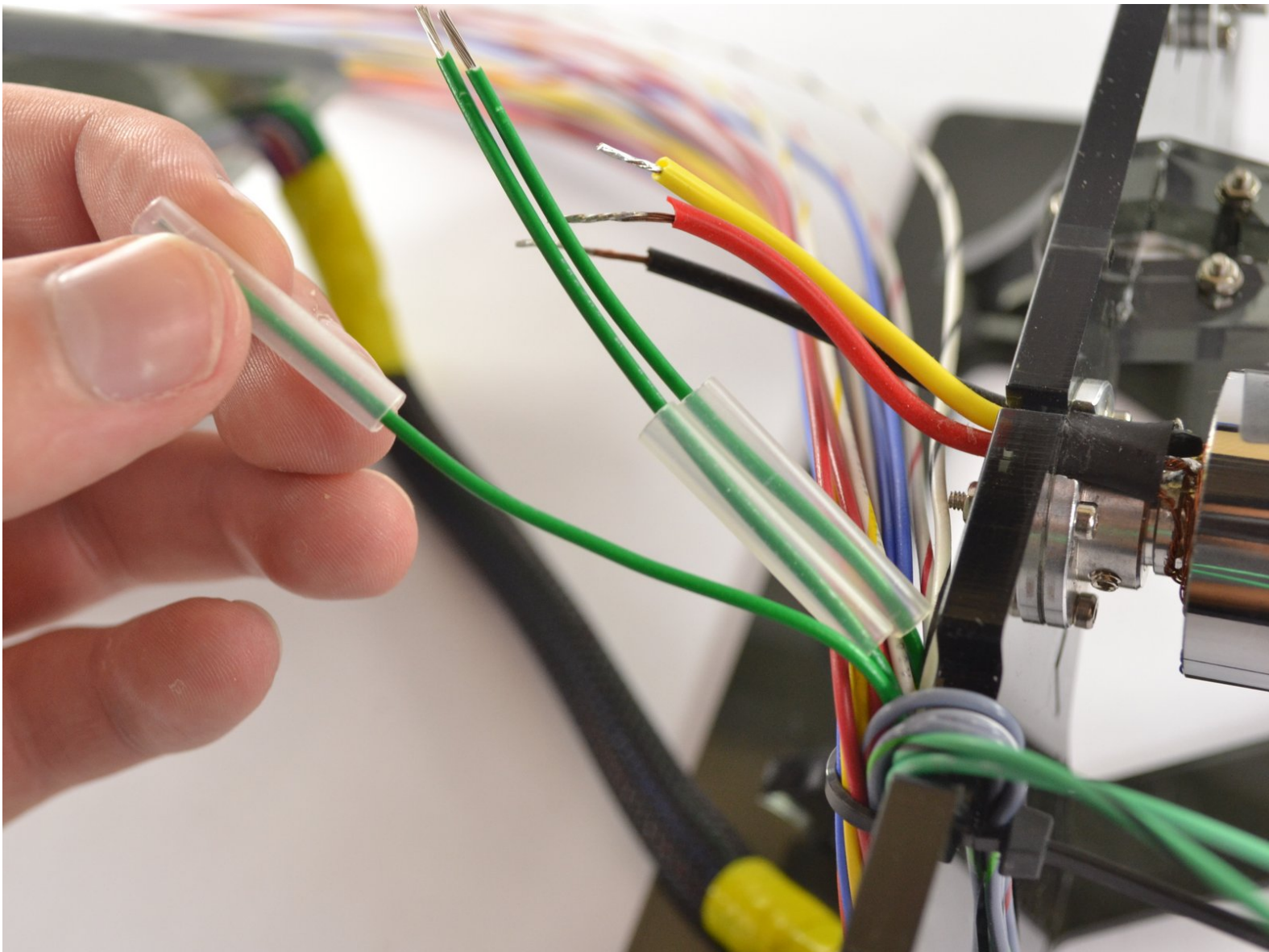


OpenROV

Making Underwater Electrical Connections Using Waterproof Heat Shrink

Written By: OpenROV (Sofar)



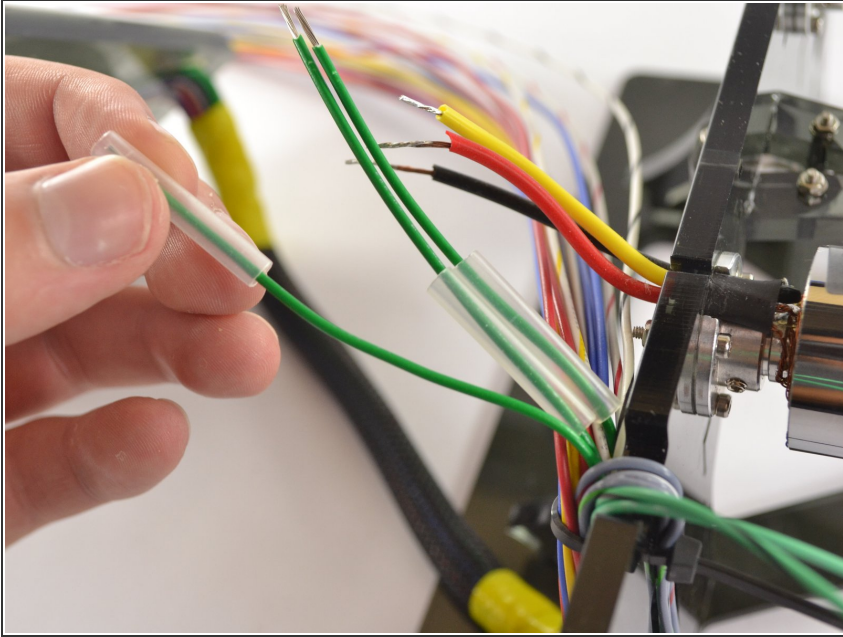
INTRODUCTION

Often times it is difficult to create a waterproof electrical connection that will survive underwater. Traditional methods include potting, which takes a long time to set, or using underwater connectors, which can be expensive. Through much lab and field testing we have found that connections can be done in a short amount of time and in a cheap way using [adhesive lined heat shrink](#). These steps will walk you through the process.

TOOLS:

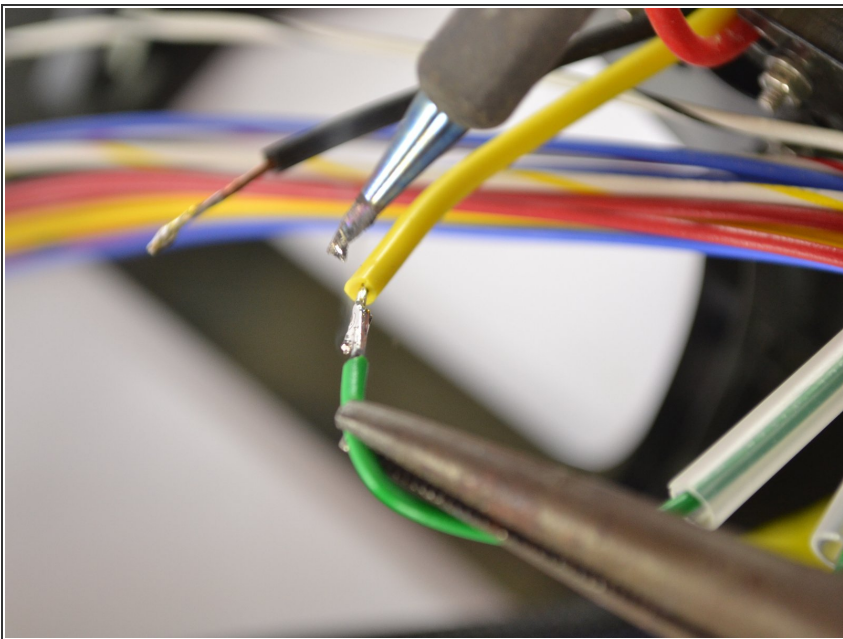
- [Heat Gun](#) (1)

Step 1 — Making Underwater Electrical Connections Using Waterproof Heat Shrink



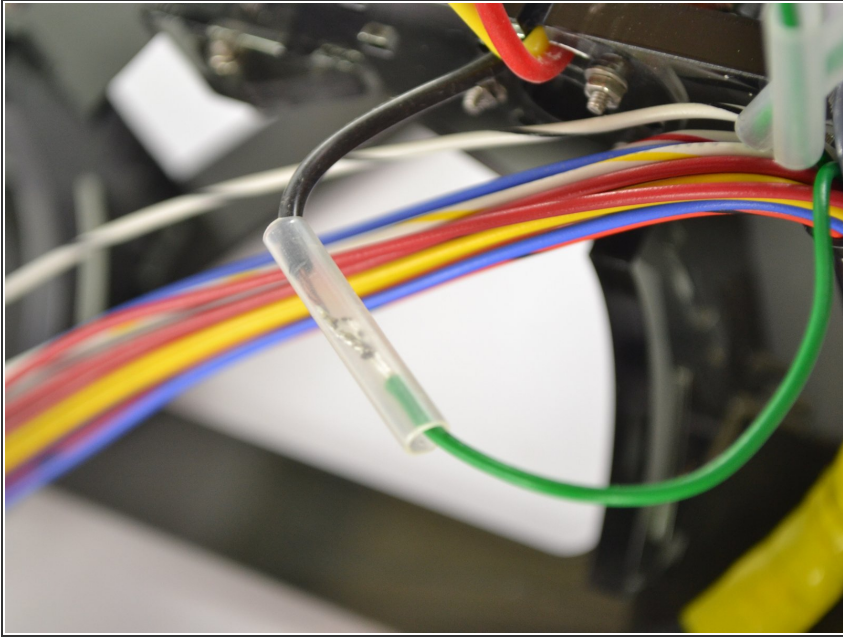
- You are going to want to cut each piece of heat shrink so it is about 5mm longer than the solder joint on either side

Step 2



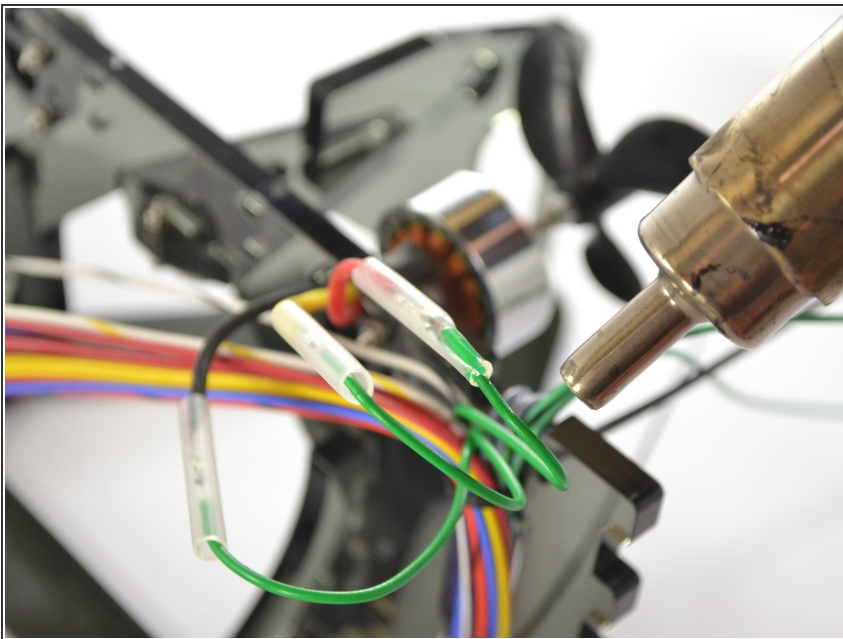
- ⚠ Use caution when soldering electronic components. The temperatures are 500 degrees and higher. Eye protection is required.
- It is best to tin each wire before joining them.
- You want to avoid sharp points on your solder connection, or frayed wire.

Step 3



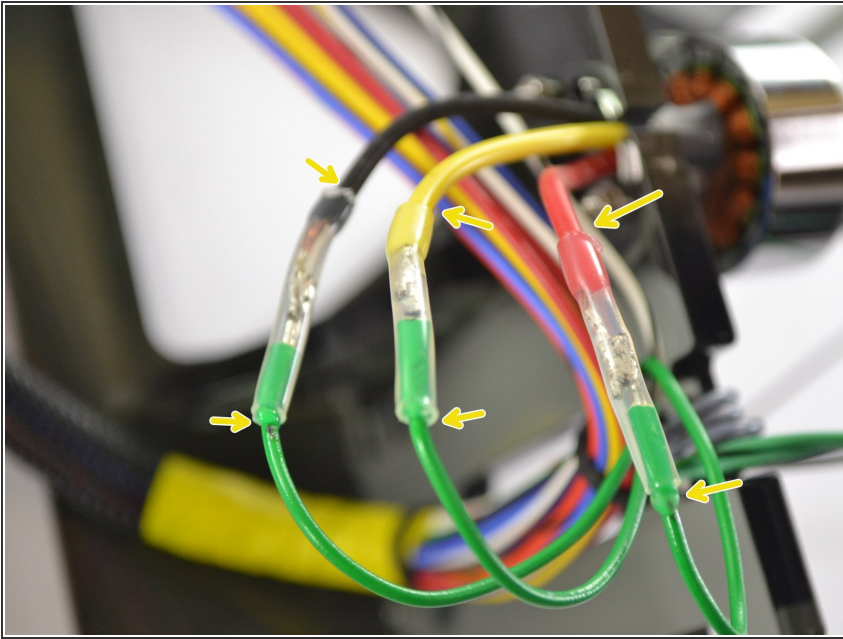
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Step 4



- Set your heat gun temperature to at least 250°F (121°C).

Step 5



- Make sure the inside lining is completely melted and oozes out each end.