



Example Requests for Technical Assistance

Problem

Solution

- Kitchen air conditioner and plumbing system problem (AC not strong enough in kitchen and odor coming out of sink in kitchen).
Basic recommendations on modification were provided by email from partner. Those recommendations are to be used by a plumber and AC repairmen to rectify the problems.
 - Heat transfer analysis of prototype spark plug
Partner provided general recommendation and list of commercially available software that can be used to analyze the heat transfer of the spark plug.
 - Infrared images information (requestor needed infrared pictures taken from space to find spring water source - thanks to temperature difference).
Info was provided on Companies that sell those types of pictures.
 - Space qualified micro switches and ball bearings.
Partner provided us with a list of vendors that sell those products.
 - Thermal protection needed (a distributor of tanning supplies needed some thermal blanket info for one of its product).
NASA and several partners have a lot of info on this subject.
 - Environmentally friendly power augmentation (requestor wanted a new environmentally friendly power generator for new water fountain).
Info on solar power and fuel cells was provided to requestor with detailed description on why those are the best power source.
 - Fluorination problem (requestor needed to get his plastic bottles treated - fluorination process - to prevent them from leaking or even letting the smell out of the bottle!)
A partner found the treatment required and local companies that could provide this service.
 - Power generation problem (solar cell manufacturer needed a way to test the cells for cracks prior to assembly into panels).
A partner suggested running low voltage through the cells causing them to heat up. The cells could then be viewed through a thermal camera and the cracks seen as cold spots.
 - Rust prevention problem (black oxide vendor needed to stop corrosion on metal parts with out the use of oil, the parts needed to be “dry to the touch”).
A partner suggested several “dry to the touch” oils that they had worked with in the past as well as testing methods that the requestor could use in order to determine the “oil” that would work best for the requestor’s situation.
 - Processing bottleneck (manufacturer needed assistance in streamlining their production line).
A partner reviewed the production processes and the product and made suggestions in tooling changes and product flow.
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