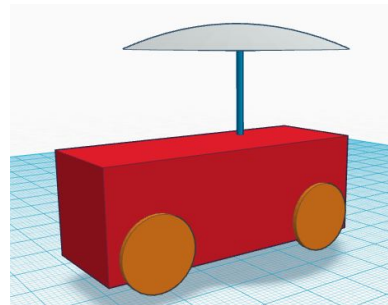


Idea: Instead of trying to reduce the amount of solar radiation, let's put the Sun to use. Solar refrigerators have already shown some promise (look [here](#)), and although they're not efficient enough to cool the entire cart yet, they would make it significantly easier to keep the ice cream cold.

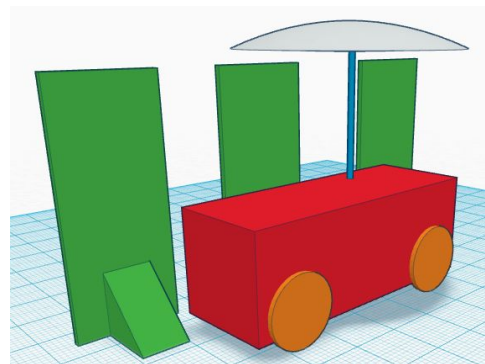
Implementation: The refrigeration system consist of two primary parts, the solar collector and the interior piping. The solar collector only needs to become warm, it doesn't need to generate electricity for this design of solar fridge to work, so they could branded and decorated however the company desires. What separates this design is the potential this has to increases cart branding, visibility, and effectiveness. The larger the area of solar collectors, and the more direct the sunlight, the more effective the solar cooling would be. This means that the cart would be able to work on hotter days for longer (I'm imagining kids' sports games and that sort of thing), but that the cart would also be able better advertise itself. Let me show you what I'm thinking of.

Design:

The current designs look something like this, with the umbrella and cart being the only real locations for advertising.



By using large, deployable solar collectors, you would not only keep the cart cooler, but would also increase the amount of available advertising space. The green constructs are solar collectors, would not only be quite cheap (likely less than \$100 for all three per cart, with the cost estimate coming from [here](#)) but would also be the perfect advertising space. On the side facing away from the cart, they could have pictures of kids happily eating icecream, and the side facing towards the cart could feature the menu, or detailed 'glamour shots' of the different ice creams. These solar collectors could be made to stow easily onto the top of the the cart for transport.



Final Thoughts: It wouldn't cost very much to retrofit old carts, and the panels would pay for themselves quickly with the increase in sales that would follow from being able to stay out longer and from being much more visible.