DESIGN OF A BIOMASS MICRO GASIFICATION COOK STOVE

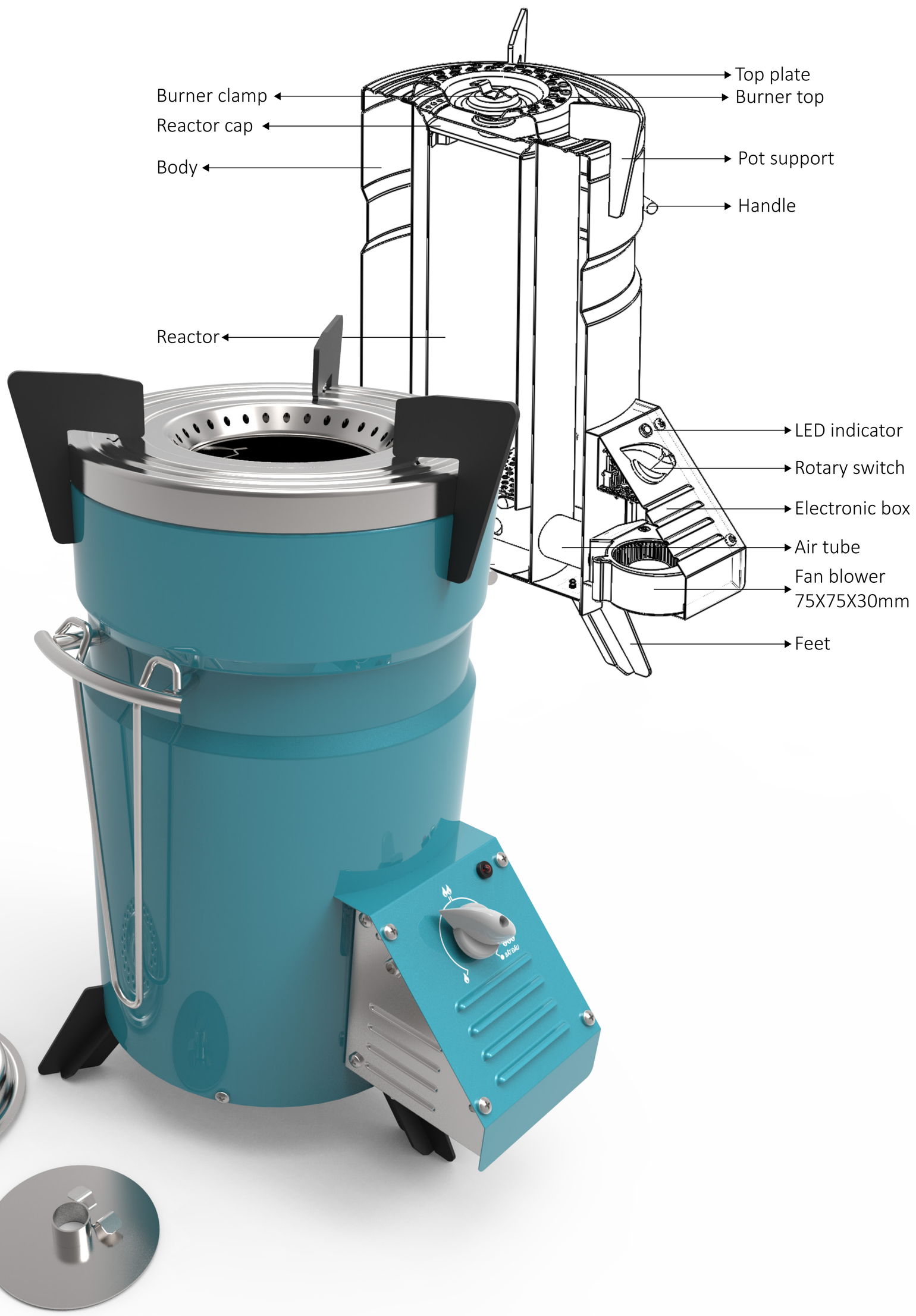
For the households of Vietnam

The problem

Households all over the world, especially in developing countries, still rely on solid biomass fuels for cooking. When used in a traditional manner, high concentrations of harmful emissions can be produced. For many of these users cooking is done inside, in space which are not well ventilated. This is known to be the cause of death of nearly 4,3 million people each year.

The solution

Gasification of biomass for cooking purposes presents a promising solution for several health and environmental issues that occur with traditional methods of cooking. The new design of a gasifier stove has been improved in terms of thermal efficiency. Through testing it was found that the stove can achieve a thermal efficiency of 67%.



Virtually no smoke detected

Less toxic emissions result in fewer deaths and diseases

Reduction in fuel cost less fuel is needed

Reduction in fuel use, with higher efficiency

Faster cooking times, higher temperatures are reached

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Design of a user friendly, safe and efficient biomass gasifier for Vietnamese households
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Integrated Product Design (IPD)

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