

## Entry 8\_Part One\_Junior



### **What is the problem being addressed?**

The problem being addressed is the high energy cost of keeping lizard enclosure. Lizard tanks require lights, heat lamps, and misters to create a good environment for the reptiles. These use a large amount of electricity, leading to increased household energy bills. Also, the setup cost for a lizard enclosure can be quite expensive, ranging from \$800 to \$2000, making lizard ownership a costly hobby.

### **What is the idea?**

The idea is to use solar panels to generate renewable energy to power the lizard enclosure. This aims to lower the ongoing costs of lizard ownership and make it more affordable and sustainable.

### **How does it work?**

The system works by installing solar panels on the roof of the house where they can receive lots of sunlight. These solar panels convert sunlight into electrical energy. The generated electricity is then stored in batteries or fed directly into the lizard enclosure's electrical system.

The stored solar energy powers the various components of the lizard enclosure, including:

1. Lighting systems to mimic natural daylight cycles
2. Heat lamps to maintain optimal temperature
3. Misters to control humidity levels

By using solar energy, the system reduces the amount of grid electricity needed to run these parts and reducing household energy bills.