**Materials resistant to outdoor conditions:**

1. High-density polyethylene (HDPE)

Pros:

* UV resistance
* Weather resistance
* Thermoplastic, makes it easy to mold into the desired shape, in our case a rectangular box.
* Inexpensive
* One of the easiest plastic polymers to recycle

Cons:

* Not ideal for high-impact or high pressure applications
* Petroleum based product

1. Aluminum

Pros:

* UV resistance
* Corrosion resistance
* Weather resistance
* Very solid
* Very light

Cons:

* More expensive

For our purpose, the material selected for the outer shell of the HealthyLeaves hardware will be made out of HDPE primarily due to its low cost and ability to be recycled easily.

**Hardware Cost:**

$1.50 ESP32-S2 IC

$1.04 PCB

$8.00 Capacitors, Resistors, Diodes, Crystal Oscillators

$2.00 Battery Connector

Sensors:

$2.24 TMP36

$1.35 Photoresistor

$4.29 SEN0193 Moisture Sensor

Total Hardware Cost: $20.42

Note: The prices shown above are for components that are purchased in low quantities. A 40% price reduction can easily be seen by buying in bulk, resulting in the hardware costing only $12.25.