

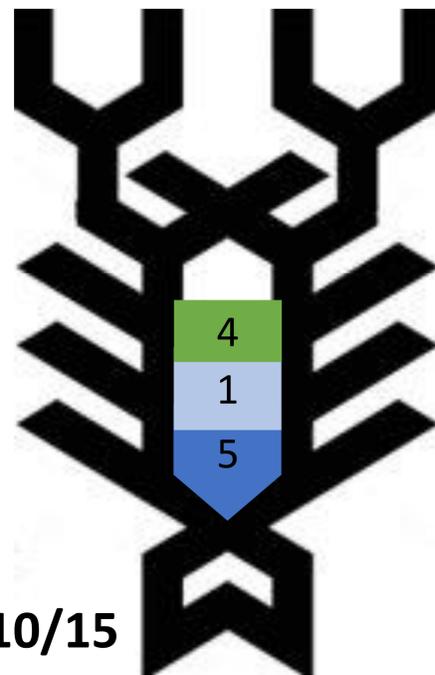
## The Big Problem

The lobstering industry in Maine produces **3,515,625 cubic inches** of plastic per year. This is due to hatches in lobster traps that are lost due to weather or boats, and cause plastic to drift off and pollute the environment

## Diagram Key:

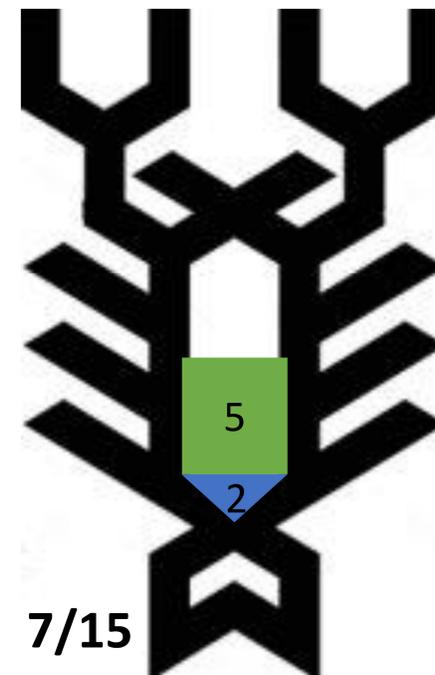
-  Cost
-  Eco-Friendliness
-  Strength

(PLA) Polylactic Acid



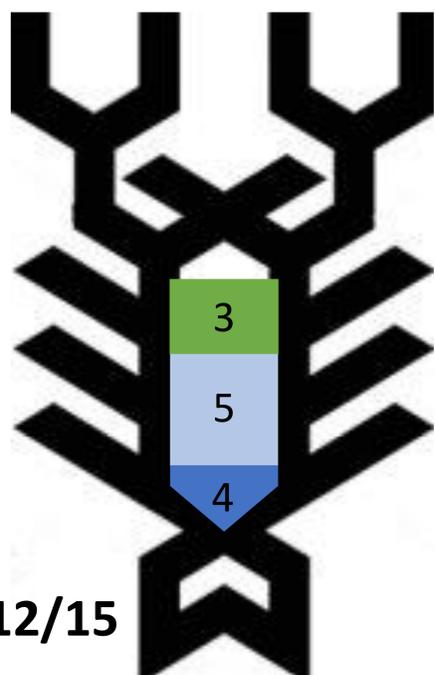
10/15

(LDPE) Low Density Polyethylene



7/15

(PHB) Polyhydroxybuterate



12/15

## Solution

Our Material scoring breakdown gave us a solution material of PHB, Polyhydroxybuterate with a final score of 12/15. This would be the most green and affective solution.

## Methods

1. Find a biodegradable replacement for plastic escape vents
2. Create a design
3. Research laws and regulations for lobstering in Maine
4. Identify communities that have already attempted to replace plastic

## Project Objective

Decrease waste generated by the lobstering community by developing an appropriate and biodegradable escape hatch to replace the existing plastic ones

## References

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Waste plastic. (2021, December 12). Retrieved November 11, 2021, from [https://www.encyclopedia.com/environment/encyclopedias-almanacs-compilations-dictionaries/waste-plastic](#)

Huber, C. B., & Matthews, T. A. (2015). Effects of ghost fishing lobster traps in the Florida Keys. *KCS Journal of Marine Science*, 72(suppl\_3), 108-109.

FACTSHEET Polyhydroxybuterate (PHB) biodegradable escape panel (hatch) for crab, lobster, and fish traps. (n.d.). Retrieved November 5, 2021, from [https://www.wpi.edu/~wpi/undergraduate/theses/2021/FACTSHEET\\_Polyhydroxybuterate\\_\(PHB\)\\_biodegradable\\_escape\\_panel\\_\(hatch\)\\_for\\_crab\\_lobster\\_and\\_fish\\_traps.pdf](#)