

A red square logo with a white border. Inside the square, the name "Donipolo Ghimire" is written in white, bold, sans-serif font, and the word "Engineer" is written in a smaller, white, serif font below it.

**Donipolo
Ghimire**

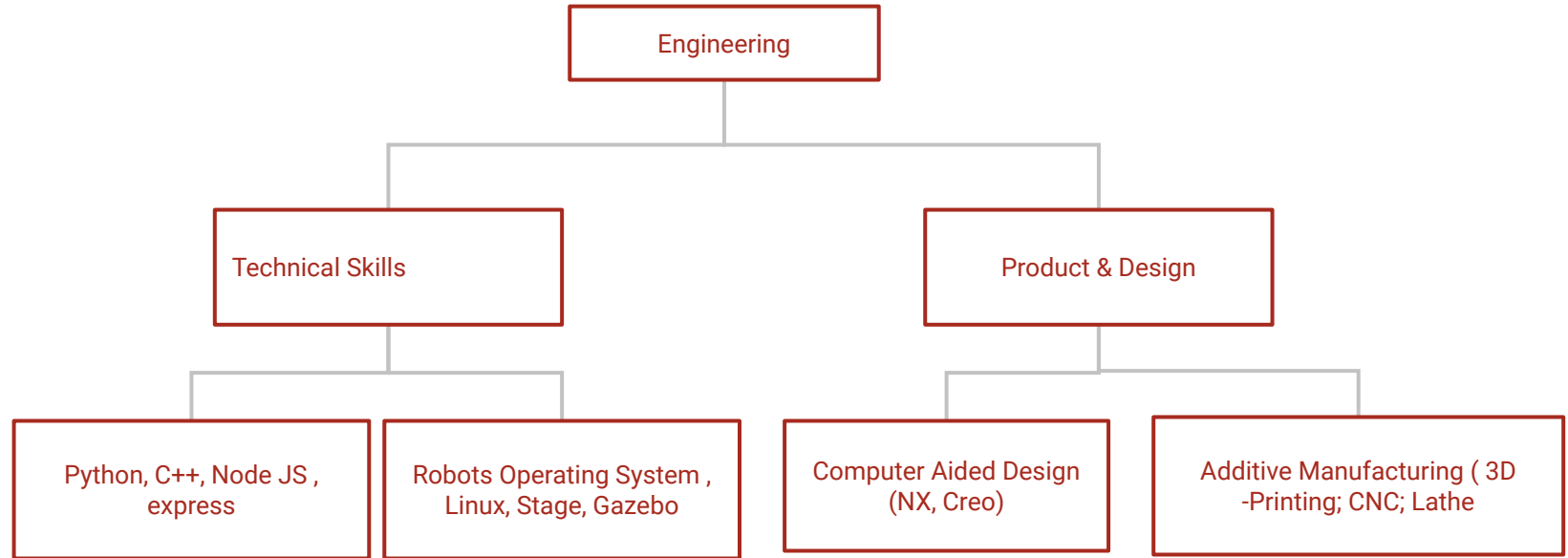
Engineer

About Me

I am a Mechanical Engineer graduate from Howard University. As an Engineering student, who practices analysis, synthesis, observation, reflection and evaluation in a daily basis, I have acquired technical and soft skills to excel in the industry or any relevant fields. I am interested in Controls and Systems (Robotics), Implementing SLAM algorithms and developing Web Servers.

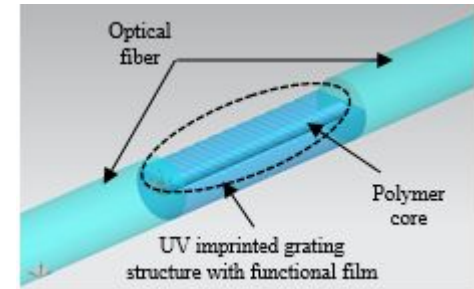
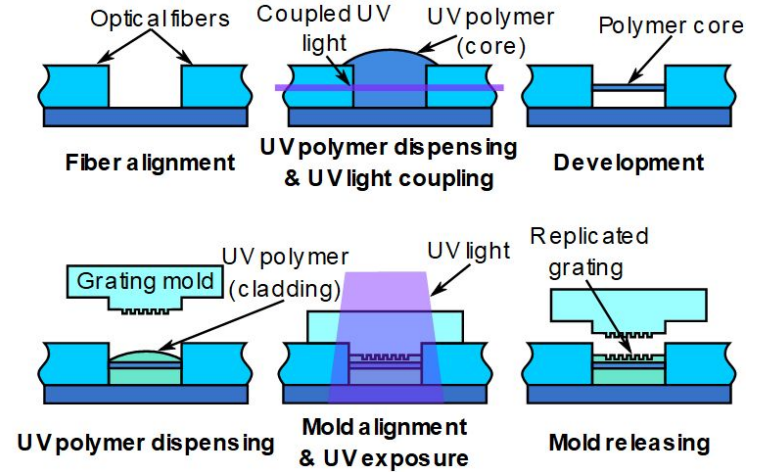


Skills And Expertise



BioSensors Lab, Research Associate

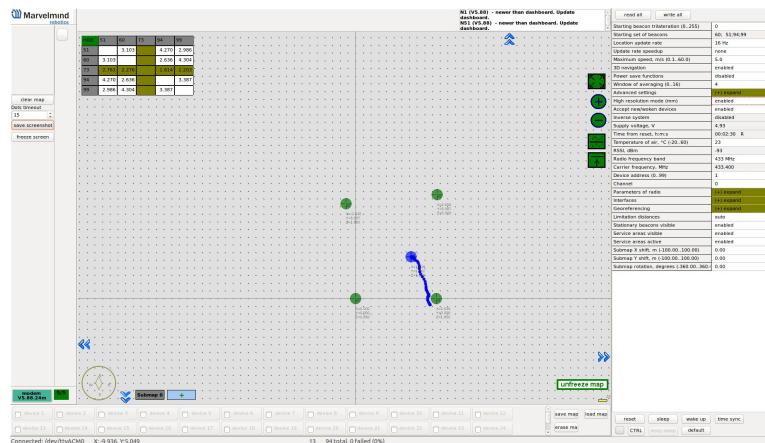
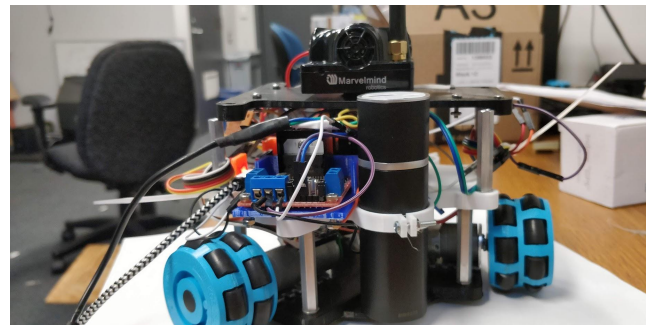
- Proposed a polymer based Surface relief Fiber bragg Grating sensor for detection of chemical, Fentanyl
- Made by optical fiber assisted UV lithography and polymer replication process.
- Grating structure is fabricated by the UV polymer, as shown in the figure, on the sidewall of the fiber fabricated to the polymer core.
- Numerical Optical Simulations were performed to study the grating structure using Comsol Multiphysics Software



Schematic of surface relief FBG sensors

MURO LAB , UCSD (Student Intern/ Researcher

- Interned in Multi-Agent Robotics Laboratory.
- Was assigned to design, develop a working prototype of an Unmanned Ground Vehicle.
- 3D printed and assembled the parts
- Implemented Controls algorithms (Proportional Integral Derivative Control)
- Implemented Kalman Filter Algorithm for Localization.

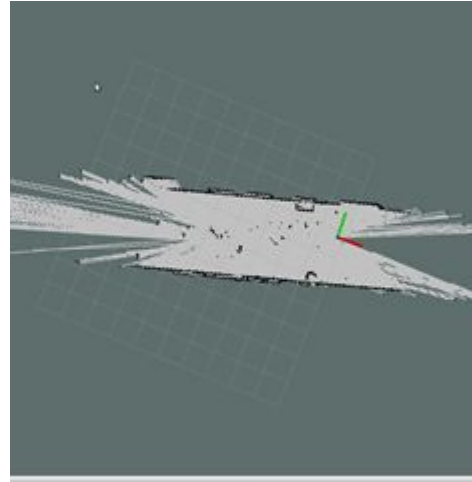


Capstone Project : Deliveroid

Designed and built an Autonomous vehicle to deliver documents and packages

Website Control was also developed to move the robot using your cell phone.

Implemented Hector SLAM algorithm. This algorithm creates real time map of the environment using LiDAR sensors



Deliveroid: Autonomous Delivery Robot

Phase 1: Mapping Using the Deliveroid



Fig(Left to right) : Website Control , initializing map of the environment , and the delivery robot

DTN ION - NASA

Developed a web server for Disruptive Tolerant Networking (DTN)

Use Node JS and Express as the web application framework

Cart

Price

Quantity

Total

Book
This is a Harry Potter Book

24.99



1

Remove

24.99

Smartphone
This is an Iphone

649.99



1

Remove

649.99

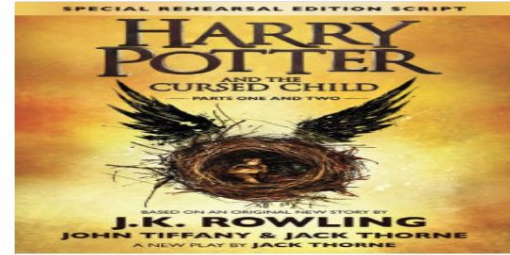
Subtotal	674.98
Tax (5%)	33.75
Shipping	15.00
Grand Total	723.73

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Ecommerce DTN

[Home](#) [Logout](#) [Cart](#)



Book

24.99

1

Buy

This is a Harry Potter Book

★★★★★



Cloth

14.99

1

Buy

This is a Winterwear

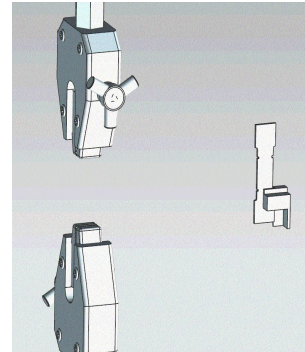
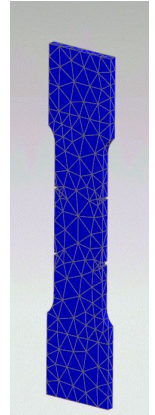
Junior Capstone: Sandia National Laboratory

Designed CAD model for the tensile testing machine

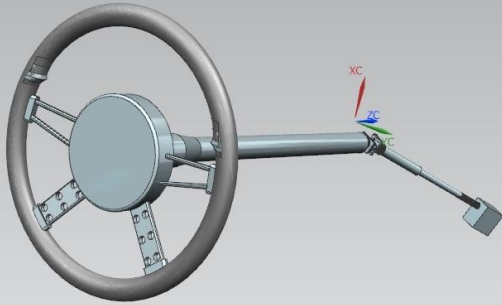
3D printed dog bones samples

Examined the variability material failure of a common aluminium alloy

Tested different materials and assembled the testing machine



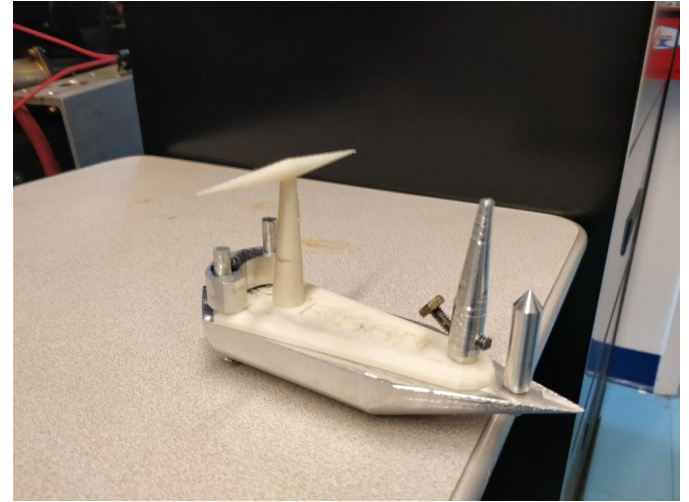
Additional projects



Designed Steering Wheel
System



Build a Tensile Testing
Device



Machining to build a HU
_Bison Boat

Club Activities

- American Society of Mechanical Engineers,
Howard Chapter - *Programs Chair*
- Engineer Without Borders
- Society of Automotive Engineers
- Math Club, Howard University



Contact Info

Donipolo Ghimire

donipolo.ghimire@bison.howard.edu

donipologhimire1997@gmail.com

Linkedin

<https://www.linkedin.com/in/donipolo-ghimire/>

Github

<https://github.com/donipologhimire>

