

NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

Techie Times

First Semester Continued	2
Yas, Queen!	2
NMT Robotics Interface Lab	3
Holiday Wishes	4



First Semester Experience at New Mexico Tech

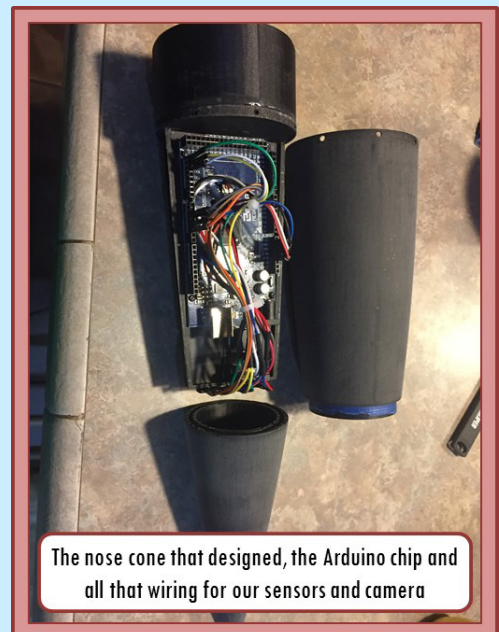
Devan Webb

In my first semester of at New Mexico Tech, I had many new experiences. I met new people, had great hands-on experience, and learned a lot about myself. I am a mechanical engineering student and New Mexico Tech has been one of the greatest things to happen to me.

I've met a lot of great people that I will talk to for the rest of my life. I recommend joining a few clubs and taking classes such as indoor soccer or basketball. These are one credit hour classes, but this is where I've met most of my college connections. It's a different environment than the classroom and people are more relaxed.

The hands-on experience in my first semester was amazing. I took Intro to Mechanical Engineering Lab, where we learned how to make 3D model parts using Solidworks, program Arduino chips, and develop and design a model rocket. Solidworks is a program that allows you to create three dimensional parts then combine them to make complete assemblies. This was initially time consuming to learn, but after about a month, I learned the program thoroughly. Going into this lab I did not know anything about programing, but throughout the course of this lab, I learned how to program Arduino chips. Programming was harder for me to learn than Solidworks.

At the beginning of the class you make project groups, with a selection of different projects that you can work on. My group decided to do the rocket project. We spent many hours developing and testing different rocket designs. We used Solidworks and



The nose cone that designed, the Arduino chip and all that wiring for our sensors and camera

First Semester Experience at New Mexico Tech Continued

Rockets to develop our rocket.

New Mexico Tech is not an easy university to attend, and it will change you. I've come a long way since high school. I like the challenge that New Mexico Tech has placed in front of me. It has challenged me to a level I've never seen. You have to be mentally strong when attending this university and time management is crucial. The stress that classes put on you will be a lot at first and it will take time to adjust. New Mexico Tech is worth the challenge.



Yas, Queen! Ramsey Baker

The Queens Rugby Team is New Mexico Tech's women's rugby club. They operate in both the spring and fall semester and foster a fun but competitive atmosphere. Rugby provides an excellent opportunity to get exercise, learn a new sport, and build relationships with other females on campus. Especially considering the low percentage of females at NMT, having a group of girls to hang out with a couple times a week can really make your time at New Mexico Tech more enjoyable. The Queens have both home and away matches, attend



tournaments, and organize socials and barbeques. They play two matches every semester against NMSU and often team up with the NMSU women's team to attend larger tournaments. The Queens can play 7s,



10s, or 15s and are looking to schedule future matches with schools like Northern Arizona University and Adams State University.

Typically, the Queens practice three times per week sometime between 4:00pm and 6:00pm. However, practice times and attendance requirements are flexible; they work with players' school schedules to make sure the maximum number of girls

can attend practices and matches. In the fall 2018 semester, the Queens traveled to Flagstaff, Arizona and played in a 10s tournament. New Mexico Tech covered most of the team's travel cost, so players do

not have to worry about paying out of pocket. In addition, the Queens held their first annual Prom Dress Alumni Match during 49ers this year, which was a huge success and will continue in the future.

The Queens welcome players of all shapes, sizes, and skill levels. Most of the current players started out brand new to rugby and have grown to love the sport and their teammates. They work every semester to expand their schedule and team size. The rugby community is unlike that of any other sport. The comradery and support among rugby players will be one of the highlights of your college experience. To join the Queens, look for flyers around campus announcing practice times, or get in contact with the Women's Rugby Club President, Mia Navarro (505-907-3169, mia.navarro@student.nmt.edu). The Queens love getting new players and welcome anyone to join their rugby family.

New Mexico Tech Robotics Interfaces Lab

Ryan Morelli

The Robotic Interfaces Lab (RIL) at New Mexico Tech works on a wide variety of human-robot interfaces. They focus on a dynamic modeling, system identification, teleoperation, and human psychophysics. Past projects have included the design and construction of robotic devices for neurorehabilitation, clinical training, and remote handling of hazardous materials. Examples of current projects include, hardware to train EMT's to more safely lift fallen patients and a sensor suite to help identify head-level obstacles that pose a risk to the visually impaired. Another project within the lab is advanced prosthetic hands. The students are currently creating a robotic hand for a tech employee as well as low budget prosthesis for children with upper limb amputation.

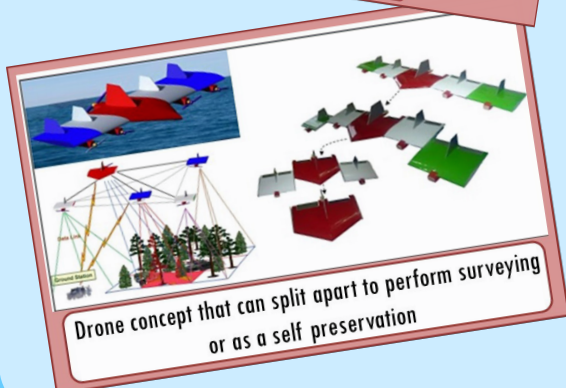
In recent years, the RIL has worked closely with Los Alamos National Lab (LANL) on a variety of projects related to addressing safety concerns relative to nuclear materials containers, gloveboxes, and glovebox components. To perform this research EMRTC (Energetic Materials Research and Testing Center) allows the lab to use their facilities to build, store, and test the tests apprentices. During these tests students push the different safety equipment to the limit. Some of the testing students are doing are drop tests from twelve feet, high fire test-



Ryan working on a project in the RIL Lab



Slow Motion image of an impact test



Drone concept that can split apart to perform surveying or as a self preservation

ing, fire suppression, water ingress, and other real-world situations.

The RIL also collaborates closely with the Autonomous Flight and Aquatic Systems Laboratory (AFASL) at New Mexico Tech. The AFASL is focused on the design, fabrication, and flight testing of novel drones. Current projects include drone platforms that target exploration on Mars and Venus as well as enabling terrestrial military and civilian missions not possible with current drone technology.

The testing that is performed in the lab has helped many students solve and discover new and innovative ways to use robotics in testing and exploration in the biomedical field.



Happy Holidays From New Mexico Tech!

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