

### Unmanned Aerial Vehicle Club Takes Flight over CR South

Thanks to an **Innovative Learning Grant** from CREF, a **UAV (Unmanned Aerial Vehicle) Club** has been created at CR South to offer students an introduction to the world of drones. *"This grant has allowed our students to apply their physics knowledge and learn more about a cutting edge topic"* said teacher Joe Warwick.

*"Universities are racing to create curriculum for drone design and manufacturing so our students may have an advantage and receive inspiration to a possible engineering career through this experience."*

The focal point of this project is the hexacopter which consists of a flying platform using six motors with propellers. The system is complete with GPS, altimeter, and magnetic compass that allows the UAV to have excellent stabilization as well as the ability to fly autonomous missions. The UAV also carries a GoPro HD Camera mounted on a gimbal to provide nearly motionless video that the pilot receives via live video while the hexacopter is in flight.



As part of this program, students will discuss the politics of drones and how the FAA will control the massive increase of UAV usage in the US. *"The most interesting part to me is the endless applications of the drone field"* said CRS senior Tom Hyndman. *"My friends and I have been thinking of different ways to utilize the technology in a fun and effective way. It is amazing to be able to work with such new and innovative technologies while still in high school!"*

In addition to the UAV club, Mr. Warwick is working with the CR South **NASA program** (also supported by a CREF Grant) to prepare for a live HAM Radio conversation with the International Space Station this spring (ARISS Program). A special course is being offered to students who wish to earn their HAM Radio License because long range communication between the UAV and the pilot often requires HAM Radio Certification to operate.



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