GREAT IDEAS IN AEROSPACE START FROM SIMPLE DESIGNS

At the beginning of April, the Department of Aerospace Engineering organized an Aerospace Week at the atrium of the Main Engineering Building, exhibiting their research in progress as well as hosting some fun competitions that tested simple aerodynamic and aeronautic principles.

The research in progress that was on display included the works created by their Unmanned Aerial Vehicle (UAV) Laboratory in the past few years. There were no high-tech aircraft in sight, but some simple but important hand-made designs such as water rockets and hand-made HLG (Hand Launch Glider) airplanes. Chang Ying-chiao, a junior that is responsible for the lab explained the seriousness of making these seemingly not serious creations. He said that every student in his department has to have this hands-on experience in manipulating with aeronautics in their Introduction to Aerospace Engineering course so as to understand some more complex issues of flying in the future.

In tandem with this exhibition, contests of making these rockets and airplanes were held. The first one was about making water rockets (usually bottles) that were filled with water and pressurized with air for launching. Students needed to control the altitude and distance well so that their rockets could reach the target that was set 50 meters away. The first few contestants failed by falling short of the target, while contestants that followed performed superbly as they adjusted the mistakes made by previous contestants. Cheng Young-sheng, one of the contestants, pointed out the key to success flying was to balance the fins that are attached at the end of the rocket.

As for hand-made HLG airplanes, they were judged by the time they stayed in the air with each contestant having three throws. Some dropped straight

down, some flew out of the atrium, and some got stuck in trees, but it was sure fun. (~Ying-hsueh Hu)