

# STEMpunk 4531

## Build Season Update

January 23rd, 2017

Since the preseason training and game unveiling, STEmpunk's strategy and robot designs have steadily progressed. Even with 3 weather cancellations, we have over 550 hours of student work in the first two weeks.

Before the build season started, the team captains arranged two half day training sessions for our new members, teaching them basic skills and knowledge needed once the build season starts. The training days consisted of learning the different drive trains and putting together a simple kit-bot complete with wiring and programming. They were then able to drive their creation around the school.

The team started the 2017 FIRST Robotics Competition season by attending a kick-off event at Valders with our partner team Droid Rage 3381. We watched the live NASA webcast of the challenge from FIRST, printed out the competition manual, then broke into groups. Each group picked out the key information from their section of the rules, then shared these points with the entire group.

FIRST STEAMWORKS, the 2017 FIRST Robotics Competition game, invites two adventure clubs from an era in which technology relied on steam power to prepare their airships for the ultimate long distance race. Some of the individual goals are:

**Autonomous Period:** Robots operate independently from preprogrammed instructions for the first 15 seconds.  
-Adventure clubs score points by: reaching their baseline, delivering gears to the airship to start the rotors, and scoring fuel into the boilers.

**Teleoperated Period:** Operators take control for the final two minutes and fifteen seconds. They e the scoring opportunities from autonomous period, but also climb the ropes up to their airship to prepare for flight.

After lunch each team separated to talk about different strategies. We then split into different sub groups based on what strategy each person wanted to do, and began prototyping. We have since narrowed it down to which mechanisms work best. We are now working on fine tuning each prototype, and making sure they all work together. With it being the end of the second build week we are now assembling the drive train. Thanks to the training days before the season started, the new team members have been able to dive right in.

Thank you for supporting the Lakeshore FIRST Robotics Program

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FIRST Robotics Competition Team STEmpunk #4531

