CONCORD MONITOR
(https://www.concordmonitor.com)

As clock ticks toward deadline, FIRST Robotics teams solve problems

Hopkinton junior Emily Ehrmanntraut and John Stark senior Alex Marko work on the base frame of the robot during a meeting of the The FIRST Robotics Competi FIRST Robotics Competition Team 1922 "Oz-Ram" at Hopkinton Middle High School in Contoocook on Tuesday, Jan. 30, 2018. The 2018. Teams in the FIRST Ro combined team is made up of students from Hopkinton Middle High School and John Stark Regional High School. (ELIZABETH functional robot they can in

FRANTZ / Monitor sta) Elizabeth Frantz—Monitor sta » Buy this Image » Buy this Image

By ELIZABETH FRANTZ (/byline?byline=By ELIZABETH FRANTZ)
Monitor sta
Published: 2/11/2018 8:56:39 PM

With less than two weeks le in the build season, pressure is rapidly mounting for FIRST Robotics Competition teams, including Team 1922 "Oz-Ram" – a combined group made up of students om Hopkinton Middle High School and John Stark Regional High School – to get into high gear.

"We are getting to the crunch time," John Stark sophomore Colby Michaud said.

Before the Monday meeting could ocially begin, students were already bustling, breaking o into small groups to work on one of the many subsystems that need to come together to create the team's robot.

Then, Michaud called everyone to attention.

He was concerned about the pending Feb. 20 deadline and, as head of strategy for Oz-Ram, Michaud wanted to hear each subgroup explain their plans as an achievable goal that could be met by deadline.

Halfway through the meeting, he read aloud a list of performance metrics the team had set, and so far the robot met only one of those standards.

There was still a lot to be done.

"It could be going way better right now. There are aws with everything, and we'll work through these aws," Michaud said, striking a pragmatic tone.

The Hopkinton-John Stark team lost a number of valuable seniors at the end of last year, and the absence of their skills has been felt, but the team is plowing forward.

While the robot was still in pieces, students were in good spirits as they chugged along in their subgroups.

In the wood workshop, Hopkinton junior Emily Ehrmanntraut and John Stark senior Alex Marko were mounting wheels on the chassis, the base ame of the vehicle that will eventually support all the other parts.

"So this design – it's the biggest size we could get. And the reason we wanted the biggest size is because we're gonna have a tall robot, so we wanted the biggest footprint we could get," Marko said, citing the maximum limits of the 33-by-28-inch base to support a maximum height of 55 inches.

In the computer lab, programmers were busy troubleshooting on a test board, writing code that will control the gear shiing in the robot.

"We had it running on low gear perfectly ne, but now the high gear – it either doesn't comply or it just won't swap back," Hopkinton senior Clion Sullivan said.

Back in the main room, Hopkinton junior Simon Page was assembling the nal pieces of the elevator system that will allow the robot to stretch out. With one mechanical action – a motor spinning a lead screw – the robot would both grow taller and raise the "arms" holding the yellow blocks that the team will place on a scale as high as 6 feet in the air during the competition.

It worked just as planned, but once assembled onto the chassis, it made the robot taller than the 55inch height limit. Like all the other teams around the state, Oz-Ram approached it as just another problem to work through as the clock winds down.

(Elizabeth Frantz can be reached at eantz@cmonitor.com or on Twitter @lizantz.)

Team Oz-Ram

School: Hopkinton Middle High School and John Stark Regional High School

Rookie year: 2006

District events attending: NE District Rhode Island Event, NE District Greater Boston Event Students on roster: 20

Leadership: Katie Barnes (communication), Tyler Campbell (graphics and imagery), Zach Hargreaves (fundraising and nancials), Alex Marko (robot), Colby Michaud (strategy)