

MCMASTER MARS ROVER TEAM MONTHLY NEWSLETTER

The McMaster Mars Rover Team (MMRT) has officially launched the 2025–2026 season with strong progress across all sub-teams. Here's a look at what each team has been up to this month:



Garth Webb Secondary School Event

BUSINESS SUB-TEAM

The first ever MMRT Business team has arrived! Members have been split into various sub-sections: Outreach, Sponsorship, Graphics, and Website Development. This month, the team has:

- Begun work on new MMRT website, merch designs, sponsorship packages, social media, and future newsletters
- Been active in outreach the past two weeks, showcasing the rover at Fall Preview, FRC STEMley Cup, and at Garth Webb Secondary School, hosting over 50 students

MECHANICAL SUB-TEAM

The Mechanical Team has onboarded 15 new members through an introduction meeting that covered the history of our rover and subsystem overviews. Recent accomplishments include:

- Finalizing designs for the V3 Arm's wrist, elbow, and shoulder joints
- Developing a modular end effector
- Beginning manufacturing and assembly of the V3 arm
- Spent time in the machine shop machining some parts for the wrist joint

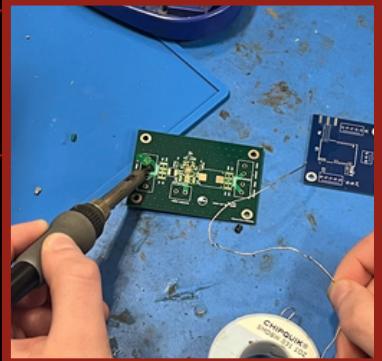


Working on putting together the V3 arm

ELECTRICAL SUB-TEAM

The Electrical Team has wrapped up its first onboarding stage, with new members developing a starter DC-DC Buck Converter PCB project. Current initiatives include:

- Early-stage design and component selection for multiple systems: PDP, ROR, BATMAN, OBCPSU, and JPSU
- Ongoing redesign and improvement of the current V3 electrical architecture for better reliability and performance



Soldering PCB

SCIENCE SUB-TEAM



Members of MMRT at the fall preview

The Science Team has completed onboarding 8 new members and has started off several exciting research projects. The team is currently:

- Designing a spectrometer
- Selecting chemical tests to detect signs of life and researching the geology of Mars
- Developing a self-contained science module
- Selecting sensors for the V3 rover

SOFTWARE SUB-TEAM

After successful onboarding, the Software Team has aligned its objectives for the year and has begun making strong technical progress. Current work includes:

- Testing SparkMAX Motor controller communication and developing a custom ROS driver
- Building ROS simulations for both the arm and the rover
- Experimenting with using different navigation sensors, including LiDAR and GPS RTK



Testing Motors and RAD Boards



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