



UTFR 

UNIVERSITY
OF TORONTO
FORMULA
RACING

MONTHLY NEWSLETTER

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INTRODUCTION

Greetings and Happy New Year from the UTFR team! As we step into 2024, our team is thrilled to unveil the possibilities that await us. This year ahead holds great promises and anticipation, particularly our debut in driverless events at competitions - an exciting first for our team! We are, as always, committed to pushing new boundaries and we cannot wait to reach new heights together.



T H A N K S

We thank you for your continued support and readership. We hope you are coming back from the holiday season refreshed and ready to explore what 2024 has to offer. As our members prepare for the new semester, we are looking forward to jumping right back into our work. None of our efforts would be possible without the support from our sponsors. As always, if you have any questions about our work please feel free to reach out to us!

SPONSOR SPOTLIGHT



Huge thanks to HMS for their support. Their USB-to-CAN adapter will facilitate communication between our computers and our CAN bus which will be used in the development, testing and troubleshooting of our race car. We look forward to using their fantastic product extensively this season.



We are incredibly honoured to be partnering with Sobek Motorsports Technologies. Their cutting edge pumps have brought a substantial upgrade to our setup. Not only have they saved significant space, but the increased pressure and flow rate have also contributed to keeping our motor and inverter running cooler and more efficiently. Plus, their enhanced control over CANbus provides us with more data logging abilities, enabling us to fine tune our system for even greater performance gains.



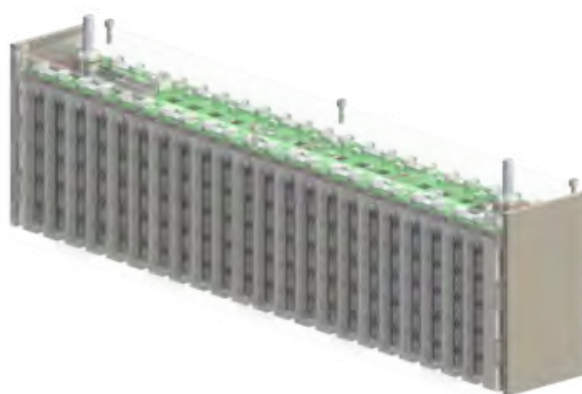
MANUFACTURING UPDATES

Despite December being a bustling period due to exams and the holiday season, the team remained dedicated to the manufacturing and development of UT24. Good progress was made across different sections of the car, notably highlighted by the successful welding of our steel-tube frame chassis. We are delighted about the progress thus far and are excited to share further updates as we continue to move forward.



DISTRIBUTED CELL TEMPERATURE SENSING

Our team is developing our very first distributed battery pack temperature sensing solution. This is our first step towards a custom battery management system (BMS). With full isolation and noise mitigation techniques, it ensures accurate sensor signals straight from the battery pack. Emphasizing reliability, our segment board testing, which includes a self-developed software routine, guarantees performance in every integrated board.



LOOKING FORWARD

In the coming month, we hope to complete the manufacturing of our aerodynamics package as well as conduct more testing of our low voltage electrical system.