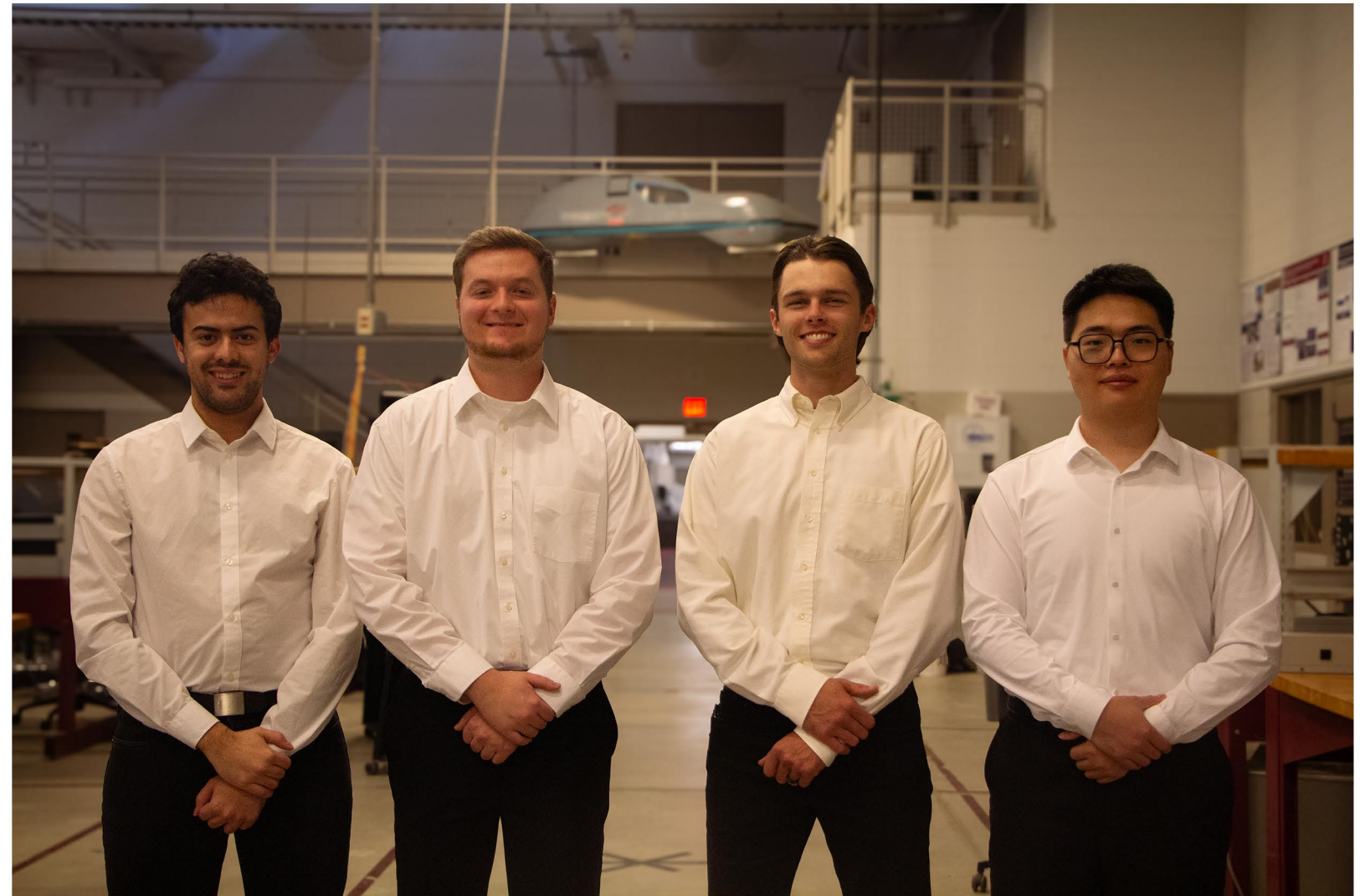


Team 11: Full Spectrum Design

The Formula SAE (FSAE) competitions are high-speed races held between various universities. Each team has to design, build, and fine-tune miniature Formula One cars where cutting-edge innovation and technology are critical keys to success. Full Spectrum Design (FSD) is designing a pneumatic shifting mechanism for the FSAE car to help achieve this goal. The shifting mechanism will be designed and implemented with many generic manufactured parts to allow the FSAE team to modify and adapt the shifting system to their performance needs. Using a high-pressure CO₂ system, a pneumatic double-acting cylinder will be actuated by a tap-shifting controller to immediately change gears to the optimal speed and RPM commanded by the driver.



From left to right: Daniel Cordeiro (ME), Seth DeVries (ME), Trenten Belote (Mechatronics), Joseph Fu (EE)

