

# Drobo BattleBot – A Gateway into Robotics

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## Locomotion

- Shuffler locomotion comprised of (4) 3D-printed feet and powered by (2) AmpFlow motors, its non-traditional design increases weight allowance by 15 pounds

## Chassis

- 6061 Aluminum chassis provides a high strength to weight ratio

## Vertical Drisk Weapon

- Metal vertical spinner, powered by a high RPM Castle motor, is designed to quickly flip opponents over

## Power System

- 4S Li-Po batteries connected in series and parallel to supply the 30V power bus

## Electronic System

- Arduino UNO R3 acts as the control center, communicating between the different systems of the bot
- Electronic speed controllers (ESC) connected to every motor, allowing for control and ensuring safety
- A Flysky 2.4GHz, 6 channel remote control system will be used to communicate with the Arduino, controlling the bot system remotely

## Mission Statement

This battle bot was not only designed with the goal to successfully compete in the NHRL competition, but to also bring more attention to robotics at Drexel. We hope to make it easier for future students to create their own bots and compete themselves. Through innovative robot design, competition, and public outreach, we aim to make that goal a reality.