

ERU 01

- The vehicle shall have some way to deaccelerate as it lands (parachute, thrusters, balloons)
- The vehicle shall have some way to dampen the shock from landing (hydraulics, springs, safety net)

ERU 02 (30 degree slope)

- The vehicle must be able to provide enough power to the motors
- The vehicle must have a power train to go up a X-grade hill
- The vehicle shall have the ability to travel up the hill with X-lbs weight (fully loaded)
- The vehicle must be able to operate in weather conditions (rain, wind)

ERU 03

- The vehicle must be able to be controlled and operated in different conditions (fog, smoke)
 - Thermal imaging, Applying filters/contrast to the video feed

ERU 04

- The vehicle must have a autonomous algorithm or AI interface that decides its navigation path to a specified GPS location
- The vehicle must be able to make decisions if obstacles/disturbances occur on its own
- The vehicle must be able to deviate from its specified path for X-time without loss of function

ERU 05

- The vehicle must have sensors to account for deviation from paths
 - Ultrasonic sensors, Lidar, Apply motion detection to video feed
- The vehicle must have a way to detect its current orientation
 - Longitude, Latitude
 - Altimeter, Gyroscope
- The vehicle must be utilize a gradient map to predetermine a obstacle-less path

ERU 06

- The vehicle must have a mechanism for loading the patient
 - Stretchers, Forklift, Ramp
- The vehicle must have a way to secure the patient
- The vehicle must have alternative system for loading/assisting the patient into the recovery mechanism
 - Robot arm, Claw

ERU 07

- The vehicle must have a long-distance communications system of up to 1500ft
- The vehicle must broadcast its location to GCS after retrieval
- The vehicle must have some power system that can handle X-amount of time of operation with a backup system
- The vehicle must have a system to monitor the patient's condition in order to determine if recovery will continue or emergency services are requested
- The vehicle must be able to transport the hiker at high speeds without interference to his condition
- The vehicle has an interference for outside obstructions