

# 2020 Field Testing Manual

## Rover Setup, Connection, and ROS Configuration

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### 1. Introduction

This document is designed to be self-contained for future rover users at the Aerospace Robotics Laboratory (ARL). Some content is reiterated from the document *Connecting-ControllingHuskyAndArgo* by J.S Fiset (see resources at [https://github.com/brahste/data\\_collection](https://github.com/brahste/data_collection)). However, substantial changes to the field testing procedures have been implemented, warranting a new manual to explain the setup, both experimental and configurational.

### 2. Sensors & Hardware INCOMPLETE

Three primary sensors are equipped on the rover:

1. a ZED stereo-camera (ZED cam)
2. a VectorNav Inertial Measurement Unit (IMU)
3. FDTI current sensors for the front left and right wheels

To incorporate the ZED cam into the sensor suite a laptop with a CUDA capable GPU is required. For this purpose, a Lenovo P53 with a GTX 1080 Ti is used.

### 3. Network Setup

To connect

#### Task 2

you can use a box as such
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