# Solution Document/System Diagram

LAN

Integrated System

Wi-Fi

Wi-Fi

Wi-Fi

ROV

DaNI Robot

Tri-Track

Wi-Fi

Wi-Fi

Alexa Voice control system

IMU

Raspberry Pi

Acoustic

Overhead Camera

Depth

RGB

Microphone

Valve Control Panel

Navigation

Black Box

Arm

Kinect

Ultrasonic Sensor

* The DaNI will be used as the navigation robot to traverse through the canyon.
* Then locate the black box using the Kinect camera
* The overhead camera and Kinect camera maps the area and finds the valve control
* The tri-track follows the path the DaNI took and uses the arm programmed by a Raspberry Pi to manipulate the valve control panel