

Concept Review Outline

1. System Requirements
2. System Concept
3. Block Diagram
4. Electrical Concept Design
5. Mechanical Concept Design
 1. Camera Housing
 2. Battery Housing
 3. Housings TBD
 1. Strobe Ballast
 2. Laser/Wifi Power and Control
6. Operational Considerations
7. Electrical Concept Details
 1. System Components
 2. Battery size calculations
 3. ROV comms concept
8. High Risk elements
9. Other
 1. Camera selection
 1. Resolution
 2. DOF
 3. FOV
 4. Image storage calcs

System Requirements

1. Depth rating: 3500 m
2. Deployment duration: 1 year
3. Minimum image frequency: 1 per hour
4. Still images only, no video required
5. Desired FOV: 20 cm x 20 cm
6. Smallest object to resolve: 250 um desired
7. Height of tallest target: 1 mab
8. Camera system must be positionable by ROV
9. Color images required
10. Max horizontal distance from target: 1 m
11. Must be deployable from both ships – prefer ROV deployed system vs. elevator