별첨 3. Biweekly 보고서

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| **Biweekly Research Progress Report**   |  |  |  | | --- | --- | --- | | **Name** | **:** | Lee ChanKeun | | **Advisor** | **:** | Young-Keun Kim (signature) | | **Period** | **:** | Week 4~5 | | **WBS** | **:** | SWIR Camera contents Proposal | | **Research Results in This Biweek**  **SWIR Circuit Modification**   * Removed the breadboard and modified the circuit with socket format   **Checking the wavelength band in an experimental way**   * Experiments were conducted using the lens filters available in the laboratory, further research is currently being carried out to identify additional lens filter that may be required.   과일, 흑백, 음식, 스크린샷이(가) 표시된 사진  자동 생성된 설명사과, 과일, 스크린샷, 흑백이(가) 표시된 사진  자동 생성된 설명과일, 스크린샷, 흑백, 사과이(가) 표시된 사진  자동 생성된 설명과일, 스크린샷, 흑백, 베리이(가) 표시된 사진  자동 생성된 설명 | | | | **Research Items in Next Biweek**   * Purchase of additional required lens filters, sugar meter * Contacting farms to obtain blueberry samples and conducting experiments * Establishment of a realistic experimental environment | | | | **Issues and Overall Progress**  **Conclusion Based on Interim Research Results**   * Successfully set up the SWIR camera environment and achieved basic image acquisition. * The circuit and Arduino system for external control have been developed and tested with positive results.   **Progress Analysis for WBS**   * Overall progress: **25% complete** * Remaining tasks include selecting the application and deep learning method research.   **Countermeasures for Potential Delays**   * Since SSC(Soluble Solid Content) does not solely represent sugar content, it is considered that directly comparing it with the reading from a conventional refractometer may present certain limitation   **Advisor Meeting Outcomes**   * Advisor suggested comparing different spectral bands for improved defect detection. * Recommended testing with multiple lens filters. | | | |