# Risk Items

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| --- | --- |
| No. | Risk Item |
| 1 | Electronic components took too long to arrive and hence delaying the work. |
| 2 | Miscommunication leading to inconsistent system structure. |
| 3 | Busy with other coursework leading to slow progress. |
| 4 | Electronic components broke down leading to repurchasing to replace. |
| 5 | Functionalities of the final prototype does not meet with clients’ expectations. |
| 6 | Initial design is not feasible to be implemented during mechanical fabrication stage. |
| 7 | Members lacking the knowledge or skillsets require to develop the IoT system. |
| 8 | The strength of signal from the XBee modules is insufficient when implemented on site. |
| 9 | Lack of communication leading to lack of effort. |
| 10 | Unavailable to access the components that is in the lab. |

# Risk Assessment

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| --- | --- | --- | --- | --- |
| Likelihood  Impact | Low (1) | Moderate (2) | High (3) | Very High (5) |
| Insignificant (1) |  | 1 | 7 | 3 |
| Tolerable (2) | 9 | 10 |  |  |
| Serious (3) | 2 |  | 8 |  |
| Catastrophic (5) | 4 | 5  6 |  |  |

# Risk Mitigation Strategy

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| Risk Item | Strategy | Category |
| Electronic components took too long to arrive and hence delaying the work. | Ensure that design is concrete prior implementation and provide some time for procurement. | Prevention / Avoidance |
| Miscommunication leading to inconsistent system structure. | All members should have frequent meetings to discuss on project-related matters. | Prevention / Avoidance |
| Busy with other coursework leading to slow progress. | All members should manage their time properly to the best of their ability to accommodate the development of this project. | Likelihood Reduction |
| Electronic components broke down leading to repurchasing to replace. | Purchasing backup of the components for emergency replacement. | Impact Reduction |
| Functionalities of the final prototype does not meet with clients’ expectations. | Ensure that the design is meeting with client’s requirements prior development. | Prevention / Avoidance |
| Initial design is not feasible to be implemented during mechanical fabrication stage. | Ensure that the design accommodate for said mechanical design. | Likelihood / Avoidance |
| Members lacking the knowledge or skillsets require to develop the IoT system. | Members should study / research on the knowledge / skillset required to the best of their ability prior development. | Likelihood / Avoidance |
| The strength of signal from the XBee modules is insufficient when implemented on site. | Prepare additional XBee modules as router. | Impact Reduction |
| Lack of communication leading to lack of effort. | Daily meeting to ensure there is progress. | Prevention / Avoidance |
| Unavailable to access the components that is in the lab. | Make sure the availability of lab for development. | Likelihood Avoidance |