# IFN-649: Advanced Networks: Project Proposal

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| Title (up to 10 words) | Instant Notice Motion Sensor LED Strip Light |
| Student Name | YI-CHEN CHEN |
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| Project Description (Up to 50 words) | This project aims to develop a long strip light (WS2812) that can be automatically turned on when the sensor detects there is a motion within a certain range and the ambient light level is under the set value. Meanwhile, my phone will receive a notification when the light turns on. |
| Why is this project important?  (Up to 50 words) | It is very important to have a motion sensor light in the following three situations:  (1) accessing a dark area: preventing fall down  (2) after turning off the main bedroom light: preventing a crash to something  (3) subscribe function: notifying me if someone accesses the room unexpectedly without he/she realising |
| Are you using all the 3-tiers (check Week 1 Lecture Slides, if tiers are unclear)? (Yes/No) | Yes |
| What functionalities executed in Tier 1? | Embedded Sensing Tier (sensors) |
| What functionalities executed in Tier 2? | Edge Tier (Rpi) |
| What functionalities executed in Tier 3? | Cloud Tier (management & subscription) |
| Which sensors will be used in your project? | WS2812 (RGB LED Strips)  LDR Light Sensor (ARD2-2218)  Motion Sensor (PIR - Passive Infrared Sensor)  HC05 (BLE)  5V Single-Channel Relay Module  (\*DHT22 (Temperature Sensor) )  (\*Audio Sensor (ARD2-2238) ) |
| Do you have all the necessary hardware? (Yes/No) If not, how will you source it? | No, just buy it. |
| Will you be able to complete the project by Week 12 (assess the feasibility)? (Yes/No) If the answer is “No”, simplify the project. | Yes, I got this. |