

## ECEG 721-61 Embedded Systems Project Proposal

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Project: **Heart Rate Sensor**

In this project, we will be using the BLE pioneer kit as it has all the necessary hardware requirements. The Heart Rate Sensor project will demonstrate the BLE workflow procedures like advertising, connecting, notifying Heart Rate data, Device Information, etc. Once set-up, there will be a green LED blinking to show the device is advertising. A red LED will blink if the device is in a disconnected state. A blue LED will blink if the device has a low battery level. If connection is received, it performs the connection procedure and provides its GATT database for the discovery process performed by the client. The Heart Rate and Battery Level notifications are sent to the Central Client device which can show them for users. The CySmart mobile app will be used as the Heart Rate Service Client.