1. **Project number**: 6

2. **Project title**: SmartLite

3. **Team members**:
   - Joseph Del Duca
   - Mike Spisak
   - Dax Dalwadi
   - Manthan Shah
   - Zeid Abdulrazeq

4. **Adviser name**: Dr. Hana Godrich

5. **At least 5 keywords that will help to classify the project scope**: Smart LED Control, Custom Lighting, User Friendly, Cost Efficient, Wireless Communication

6. **Project abstract**

   Our project aims to easily and efficiently bring a smart lighting system to any home. We plan to create a device that can be implemented to any existing lighting design to allow wireless control and dimming capabilities from your smartphone. We will be building an Android application to wirelessly control the lights using Bluetooth, Arduino and NRF chips. We also aim to include as many user friendly features as possible to such as including timers and eventually wifi capabilities for control when outside of the home.

   The motivation of this project is to create a simple and easy solution for a smart light system in the home. The user will not need an electrician to rewire the circuitry in the house and will not need to purchase specific light bulbs to meet manufacturer requirements. Having full control of the system through your smartphone will make the user’s experience as simple as possible.
Our mission is to make a substantial aspect of our daily lives more convenient without compromising the economical advantage. Unlike the existing control systems that have limited and one dimensional compatibilities. Our open system will allow the users to choose between the various available lighting products that matches their need and cost cutting choices. One of the objectives of this project is long term cost saving; whether it’s by manually changing the brightness or by using a phototransistor sensing feedback to adaptively achieve this task, this system will reduce unnecessary use patterns and make the design more efficient in terms of energy saving.