

### **Tips for the Vivid Light Challenge (July 2016)**

- 1) Must use one or more sensors found on the FEZ HAT
  - a. Temperature Sensor, Accelerometer, Light Sensor or user buttons.
  - b. <https://www.ghielectronics.com/docs/329/fez-hat-developers-guide>
- 2) There are two RGB Leds on the FEZ HAT so you can test your colour idea on those
- 3) The following Nuget libraries are required
  - M2Mqtt - MQTT Client Library for .Net: <https://www.nuget.org/packages/M2Mqtt>
  - Json.net: <https://www.nuget.org/packages/Newtonsoft.Json/8.0.3>
- 4) MQTT Pub/Sub Details
  - a. Broker IP Address: Will be made available on the day
  - b. Publish on topic `iot/light/`
- 5) The Light Class (found in the Challenge Directory)
  - Light IDs available: 1-4.
  - You can use as many lights as you like but they are a shared resource so you'll have to negotiate with others in the workshop.
  - You need to provide Red, Green, Blue colours between 0 (off) and 255 (full brightness) to mix your colours.
- 6) Lights are refreshed every 100 milliseconds (10Hz)

### **Winning criteria**

- To be judged on subjective/artistic appeal by the rest of the workshop attendees
- In case of hang vote, the DaveG will have casting vote