Cloud, APIs and Alerts > Bolt Python Library

Controlling LED using Bolt Python Library

If you are reading this section, you probably already know Controlling LED over Bolt Cloud. But here's a quick summary -

Keep the Bolt Device turned off until the led is connected to avoid accidentally shorting any components.

The LED has 2 legs. The longer leg is always connected to any GPIO pin and the shorter leg is always connected to ground.

After connection, power on your Bolt device and connects it to the internet-enabled wifi network and log in to your ubuntu server(Digital Ocean droplet) and create a Python file.

Type the below command to create a Python file.

```
sudo nano led_control.py
```

and type the below code in your file and then we will understand the code one by one.

```
from boltiot import Bolt
api_key = "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
device_id  = "BOLTXXXXX"
mybolt = Bolt(api_key, device_id)
response = mybolt.digitalWrite('0', 'HIGH')
print (response)
```

In the first line, we are importing the Bolt class from the boltiot module and then we assigning the api_key which you will get on Bolt cloud https://cloud.boltiot.com/api_credentials. This API key is unique for every user and keeps it safe and in third line, you need to assign the device_id. The Device ID can be found on your Cloud Dashboard and will be something like BOLTXXXXX where XXXXX are numbers.

In the fourth line, we are passing api_key and device_id to Bolt class as constructor arguments and it will return an instance, I have named it as mybolt and in the fifth line, we are calling the digitalWrite function and passing the GPIO pin number and Value of GPIO. Here HIGH means ON meaning it will

switch on the led on pin 0. You can connect led to any GPIO pin but you have to pass the used pin number in digitalWrite function.

Save the above file using and run it in the terminal.

```
sudo python3 led_control.py
```

and if you want to switch off the led then change the HIGH to LOW in digitalWrite functions in your previous code and your code will look like this -

```
from boltiot import Bolt
api_key = "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
device_id  = "BOLTXXXXX"
mybolt = Bolt(api_key, device_id)
response = mybolt.digitalWrite('0', 'LOW')
```

Save the above file using and run it in the terminal.

```
sudo python3 led_control.py
```

and the above command will switch off the LED.

holla! We have learned about controlling led using Bolt Python library. Now you can add your own logic/condition to switch on and off the led. In the next section, we will learn about the controlling the intensity of the LED.

