Set up variables, functions in the void setup

**Particle.variable**

Create a variable in the cloud that gets called with **GET** by photons and updated.

10 cloud variables can be defined

Each variable is max of 10 characters

Variable can be called even when cloud is disconnected

Variables supported

INT, DOUBLE, STRING

void setup() { *// variable name max length is 12 characters long* Particle.variable("analogvalue", analogvalue);

}

**Particle Function**

4 cloud functions can be created

Particle.function(‘**funcKey**”, *funcName*);

**funcKey** – name used to make a POST request “cloud function name?”

*funcName* – name of function in the code

Cloud functions takes string argument

**Particle.Publish()**

Consists of

* Name
* Public/private
* TTL (N/A)
* Optional data

*Particle.publish with no data returns True/False Boolean*

Currently, a device can publish at rate of about 1 event/sec, with bursts of up to 4 allowed in 1 second. Back to back burst of 4 messages will take 4 seconds to recover.

Publish event with data:

Particle.publish(String eventName, String data);

Publish private event:

Particle.publish(String eventName, String data, int ttl, PRIVATE);

**Particle.Publish()**