IoT

The communication between Arduino and esp module takes place through serial communication. The code in the esp module is given below:

*#include "CTBot.h"*

*CTBot myBot;*

*String ssid = "Moto Z2 Play 9800" ; // YOUR WIFI SSID*

*String pass = "asuszen4"; // WIFI PASSWORD, IF ANY*

*String token = "705123203:AAH-xT\_iITGfWbd2IgfIiSbDZXon2k\_bErU" ; // TELEGRAM BOT TOKEN*

*String inString;String inString2;*

*int id=0;*

*void setup() {*

*// put your setup code here, to run once:*

*Serial.begin(9600);*

*Serial.println("Starting TelegramBot...");*

*// connect the ESP8266 to the desired access point*

*myBot.wifiConnect(ssid, pass);*

*// set the telegram bot token*

*myBot.setTelegramToken(token);*

*// check if all things are ok*

*if (myBot.testConnection())*

*Serial.println("\ntestConnection OK");*

*else*

*Serial.println("\ntestConnection NOK");*

*}*

*void loop() {*

*TBMessage msg;*

*if (myBot.getNewMessage(msg))*

*{*

*myBot.sendMessage(msg.sender.id, msg.text);*

*id=msg.sender.id;*

*Serial.println(id);*

*}*

*char s=Serial.read();*

*if(s =='c')*

*{*

*myBot.sendMessage(id,"Cold water");*

*}*

*else if(s =='l')*

*{*

*myBot.sendMessage(id,"Low water level");*

*}*

*else if(s =='h')*

*{*

*myBot.sendMessage(id,"hot water ");*

*}*

*}*

The flow chart for different messages are given as below:

1)Low water level indication:

Message “low water level” is sent

ESP reads ‘l’ in Serial Monitor

Arduino writes ‘l’ in Serial Monitor

Water level <5ltr

2) Normal Water dispensed : 3)Hot Water Dispensed:

Message “cold water Dispensed” is sent

ESP reads ‘n’ in Serial Monitor

Arduino writes ‘n’ in Serial Monitor

normal() function in Arduino is called

hot() function in Arduino is called

Arduino writes ‘h’ in Serial Monitor

ESP reads ‘h’ in Serial Monitor

Message “hot water dispensed” is sent