Extended Data Script 1.

```
import controlP5.*; //import ControlP5 library
import processing.serial.*;
Serial port;
ControlP5 cp5; //create ControlP5 object
PFont font;
void setup(){ //same as arduino program
  size(800, 800);    //window size, (width, height)
  printArray(Serial.list());   //prints all available serial ports
  port = new Serial(this, "COM1", 9600);
    cp5 = new ControlP5(this);
  font = createFont("Times New Roman", 20);    // custom fonts for buttons and title
     cp5.addButton("DtoW")     //"alloff" is the name of button
     .setPosition(50, 50)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
    cp5.addButton("CtoW")     //"red" is the name of button
     .setPosition(50, 150)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
   cp5.addButton("BtoW")     //"red" is the name of button
     .setPosition(50, 250)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
   cp5.addButton("AtoW")     //"red" is the name of button
     .setPosition(50, 350)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
   cp5.addButton("Ato78")     //"red" is the name of button
     .setPosition(175, 50)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
   cp5.addButton("Ato1112")     //"red" is the name of button
     .setPosition(175, 150)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
   cp5.addButton("AtoAll")     //"red" is the name of button
     .setPosition(350, 50)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
    ;
   cp5.addButton("BtoAll")     //"red" is the name of button
     .setPosition(350, 150)  //x and y coordinates of upper left corner of button
     .setSize(100, 75)      //(width, height)
     .setFont(font)
```

```
1202      ;
1203     cp5.addButton("CtoAll")     //"red" is the name of button
1204       .setPosition(350, 250)  //x and y coordinates of upper left corner of button
1205       .setSize(100, 75)      //(width, height)
1206       .setFont(font)
1207      ;
1208      cp5.addButton("DtoA")     //"alloff" is the name of button
1209       .setPosition(350, 350)  //x and y coordinates of upper left corner of button
1210       .setSize(100, 75)      //(width, height)
1211       .setFont(font)
1212      ;
1213     cp5.addButton("AtoF4")     //"red" is the name of button
1214       .setPosition(475, 50)  //x and y coordinates of upper left corner of button
1215       .setSize(100, 75)      //(width, height)
1216       .setFont(font)
1217      ;
1218     cp5.addButton("BtoF4")     //"red" is the name of button
1219       .setPosition(475, 150)  //x and y coordinates of upper left corner of button
1220       .setSize(100, 75)      //(width, height)
1221       .setFont(font)
1222      ;
1223     cp5.addButton("CtoF4")     //"red" is the name of button
1224       .setPosition(475, 250)  //x and y coordinates of upper left corner of button
1225       .setSize(100, 75)      //(width, height)
1226       .setFont(font)
1227      ;
1228     cp5.addButton("DtoF4")     //"alloff" is the name of button
1229       .setPosition(475, 350)  //x and y coordinates of upper left corner of button
1230       .setSize(100, 75)      //(width, height)
1231       .setFont(font)
1232      ;
1233     cp5.addButton("AtoL4")     //"red" is the name of button
1234       .setPosition(600, 50)  //x and y coordinates of upper left corner of button
1235       .setSize(100, 75)      //(width, height)
1236       .setFont(font)
1237      ;
1238     cp5.addButton("BtoL4")     //"red" is the name of button
1239       .setPosition(600, 150)  //x and y coordinates of upper left corner of button
1240       .setSize(100, 75)      //(width, height)
1241       .setFont(font)
1242      ;
1243     cp5.addButton("CtoL4")     //"red" is the name of button
1244       .setPosition(600, 250)  //x and y coordinates of upper left corner of button
1245       .setSize(100, 75)      //(width, height)
1246       .setFont(font)
1247      ;
1248       cp5.addButton("DtoL4")     //"alloff" is the name of button
1249       .setPosition(600, 350)  //x and y coordinates of upper left corner of button
1250       .setSize(100, 75)      //(width, height)
1251       .setFont(font)
1252      ;
```

```
1253      cp5.addButton("AllOn")     //"alloff" is the name of button
1254        .setPosition(600, 600)  //x and y coordinates of upper left corner of button
1255        .setSize(100, 75)      //(width, height)
1256        .setFont(font)
1257      ;
1258      cp5.addButton("X1")     //"alloff" is the name of button
1259        .setPosition(50, 450)  //x and y coordinates of upper left corner of button
1260        .setSize(25, 25)      //(width, height)
1261        .setFont(font)
1262      ;
1263      cp5.addButton("Y1")     //"alloff" is the name of button
1264        .setPosition(50, 500)  //x and y coordinates of upper left corner of button
1265        .setSize(25, 25)      //(width, height)
1266        .setFont(font)
1267      ;
1268      cp5.addButton("X2")     //"alloff" is the name of button
1269        .setPosition(85, 450)  //x and y coordinates of upper left corner of button
1270        .setSize(25, 25)      //(width, height)
1271        .setFont(font)
1272      ;
1273      cp5.addButton("Y2")     //"alloff" is the name of button
1274        .setPosition(85, 500)  //x and y coordinates of upper left corner of button
1275        .setSize(25, 25)      //(width, height)
1276        .setFont(font)
1277      ;
1278      cp5.addButton("X3")     //"alloff" is the name of button
1279        .setPosition(120, 450)  //x and y coordinates of upper left corner of button
1280        .setSize(25, 25)      //(width, height)
1281        .setFont(font)
1282      ;
1283      cp5.addButton("Y3")     //"alloff" is the name of button
1284        .setPosition(120, 500)  //x and y coordinates of upper left corner of button
1285        .setSize(25, 25)      //(width, height)
1286        .setFont(font)
1287      ;
1288     cp5.addButton("X4")     //"alloff" is the name of button
1289        .setPosition(155, 450)  //x and y coordinates of upper left corner of button
1290        .setSize(25, 25)      //(width, height)
1291        .setFont(font)
1292      ;
1293      cp5.addButton("Y4")     //"alloff" is the name of button
1294        .setPosition(155, 500)  //x and y coordinates of upper left corner of button
1295        .setSize(25, 25)      //(width, height)
1296        .setFont(font)
1297      ;
1298      cp5.addButton("X5")     //"alloff" is the name of button
1299        .setPosition(190, 450)  //x and y coordinates of upper left corner of button
1300        .setSize(25, 25)      //(width, height)
1301        .setFont(font)
1302      ;
1303      cp5.addButton("Y5")     //"alloff" is the name of button
```

```
1304        .setPosition(190, 500)  //x and y coordinates of upper left corner of button
1305        .setSize(25, 25)      //(width, height)
1306        .setFont(font)
1307      ;
1308      cp5.addButton("X6")     //"alloff" is the name of button
1309        .setPosition(225, 450)  //x and y coordinates of upper left corner of button
1310        .setSize(25, 25)      //(width, height)
1311        .setFont(font)
1312      ;
1313      cp5.addButton("Y6")     //"alloff" is the name of button
1314        .setPosition(225, 500)  //x and y coordinates of upper left corner of button
1315        .setSize(25, 25)      //(width, height)
1316        .setFont(font)
1317      ;
1318      cp5.addButton("X7")     //"alloff" is the name of button
1319        .setPosition(260, 450)  //x and y coordinates of upper left corner of button
1320        .setSize(25, 25)      //(width, height)
1321        .setFont(font)
1322      ;
1323      cp5.addButton("Y7")     //"alloff" is the name of button
1324        .setPosition(260, 500)  //x and y coordinates of upper left corner of button
1325        .setSize(25, 25)      //(width, height)
1326        .setFont(font)
1327      ;
1328      cp5.addButton("X8")     //"alloff" is the name of button
1329        .setPosition(295, 450)  //x and y coordinates of upper left corner of button
1330        .setSize(25, 25)      //(width, height)
1331        .setFont(font)
1332      ;
1333      cp5.addButton("Y8")     //"alloff" is the name of button
1334        .setPosition(295, 500)  //x and y coordinates of upper left corner of button
1335        .setSize(25, 25)      //(width, height)
1336        .setFont(font)
1337      ;
1338        cp5.addButton("X9")     //"alloff" is the name of button
1339        .setPosition(330, 450)  //x and y coordinates of upper left corner of button
1340        .setSize(25, 25)      //(width, height)
1341        .setFont(font)
1342      ;
1343      cp5.addButton("Y9")     //"alloff" is the name of button
1344        .setPosition(330, 500)  //x and y coordinates of upper left corner of button
1345        .setSize(25, 25)      //(width, height)
1346        .setFont(font)
1347      ;
1348        cp5.addButton("X10")     //"alloff" is the name of button
1349        .setPosition(365, 450)  //x and y coordinates of upper left corner of button
1350        .setSize(40, 25)      //(width, height)
1351        .setFont(font)
1352      ;
1353      cp5.addButton("Y10")     //"alloff" is the name of button
1354        .setPosition(365, 500)  //x and y coordinates of upper left corner of button
```

```
      .setSize(40, 25)      //(width, height)
      .setFont(font)
    ;
    cp5.addButton("X11")     //"alloff" is the name of button
      .setPosition(415, 450)  //x and y coordinates of upper left corner of button
      .setSize(40, 25)      //(width, height)
      .setFont(font)
    ;
    cp5.addButton("Y11")     //"alloff" is the name of button
      .setPosition(415, 500)  //x and y coordinates of upper left corner of button
      .setSize(40, 25)      //(width, height)
      .setFont(font)
    ;
    cp5.addButton("X12")     //"alloff" is the name of button
      .setPosition(465, 450)  //x and y coordinates of upper left corner of button
      .setSize(40, 25)      //(width, height)
      .setFont(font)
    ;
    cp5.addButton("Y12")     //"alloff" is the name of button
      .setPosition(465, 500)  //x and y coordinates of upper left corner of button
      .setSize(40, 25)      //(width, height)
      .setFont(font)
    ;
  }
  void draw(){  //same as loop in arduino
    background(150, 0 , 150); // background color of window (r, g, b) or (0 to 255)

    //lets give title to our window
    fill(0, 255, 0);              //text color (r, g, b)
    textFont(font);
    text("VALVE CONTROL", 50, 30);  // ("text", x coordinate, y coordinat)
  }
  void CtoW(){
    port.write('a');
  }
  void BtoW(){
    port.write('b');
  }
  void AtoW(){
    port.write('c');
  }
  void Ato78(){
    port.write('d');
  }
  void Ato1112(){
    port.write('e');
  }
  void AtoAll(){
    port.write('f');
  }
  void BtoAll(){
```

```
1406      port.write('g');
1407    }
1408    void CtoAll(){
1409      port.write('h');
1410    }
1411    void AtoF4(){
1412      port.write('i');
1413    }
1414    void BtoF4(){
1415      port.write('j');
1416    }
1417    void CtoF4(){
1418      port.write('k');
1419    }
1420    void AtoL4(){
1421      port.write('l');
1422    }
1423    void BtoL4(){
1424      port.write('m');
1425    }
1426    void CtoL4(){
1427      port.write('n');
1428    }
1429    void AllOn(){
1430      port.write('o');
1431    }
1432    void DtoW(){
1433      port.write('p');
1434    }
1435    void DtoA(){
1436      port.write('q');
1437    }
1438    void DtoF4(){
1439      port.write('r');
1440    }
1441    void DtoL4(){
1442      port.write('s');
1443    }
1444    void X1(){
1445      port.write('A');
1446    }
1447    void X2(){
1448      port.write('B');
1449    }
1450    void X3(){
1451      port.write('C');
1452    }
1453    void X4(){
1454      port.write('D');
1455    }
1456    void X5(){
```

```
1457      port.write('E');
1458    }
1459    void X6(){
1460      port.write('F');
1461    }
1462    void X7(){
1463      port.write('G');
1464    }
1465    void X8(){
1466      port.write('H');
1467    }
1468    void X9(){
1469      port.write('I');
1470    }
1471    void X10(){
1472      port.write('J');
1473    }
1474    void X11(){
1475      port.write('K');
1476    }
1477    void X12(){
1478      port.write('L');
1479    }
1480    void Y1(){
1481      port.write('M');
1482    }
1483    void Y2(){
1484      port.write('N');
1485    }
1486    void Y3(){
1487      port.write('O');
1488    }
1489    void Y4(){
1490      port.write('P');
1491    }
1492    void Y5(){
1493      port.write('Q');
1494    }
1495    void Y6(){
1496      port.write('R');
1497    }
1498    void Y7(){
1499      port.write('S');
1500    }
1501    void Y8(){
1502      port.write('T');
1503    }
1504    void Y9(){
1505      port.write('U');
1506    }
1507    void Y10(){
```

```
  port.write('V');
 }
 void Y11(){
  port.write('W');
 }
 void Y12(){
  port.write('X');
 }
```

Extended Data Script 2.

```
int incomingByte = 0;
int p1 = 1;int p2 = 2;int p3 = 3;int p4 = 4;int p5 = 5;int p6 = 6;int p7 = 7;int p8 = 8;int p9 = 9;int p10 =
10;int p11 = 11;int p12 = 12;int p13 = 13;int p14 = 14;int p15 = 15;int p16 = 16;int p17 = 17;int p18 =
18;int p19 = 19;int p20 = 20;int p21 = 21;int p22 = 22;int p23 = 23;int p24 = 24;

void setallvalves(int v1, int v2, int v3, int v4, int v5, int v6, int v7, int v8, int v9, int v10, int v11, int v12,
int v13, int v14, int v15, int v16, int v17, int v18, int v19, int v20, int v21, int v22, int v23, int v24){
  if (v1 == 1){digitalWrite(p1, HIGH);}
  else {digitalWrite(p1, LOW);}
  if (v2 == 1){digitalWrite(p2, HIGH);}
  else {digitalWrite(p2, LOW);}
  if (v3 == 1){digitalWrite(p3, HIGH);}
  else{digitalWrite(p3, LOW);}
  if (v4 == 1){digitalWrite(p4, HIGH);}
  else{digitalWrite(p4, LOW);}
  if (v5 == 1){digitalWrite(p5, HIGH);}
  else{digitalWrite(p5, LOW);}
  if (v6 == 1){digitalWrite(p6, HIGH);}
  else{digitalWrite(p6, LOW);}
  if (v7 == 1){digitalWrite(p7, HIGH);}
  else{digitalWrite(p7, LOW);}
  if (v8 == 1){digitalWrite(p8, HIGH);}
  else{digitalWrite(p8, LOW);}
  if (v9 == 1){digitalWrite(p9, HIGH);}
  else{digitalWrite(p9, LOW);}
  if (v10 == 1){digitalWrite(p10, HIGH);}
  else{digitalWrite(p10, LOW);}
  if (v11 == 1){digitalWrite(p11, HIGH);}
  else{digitalWrite(p11, LOW);}
  if (v12 == 1){digitalWrite(p12, HIGH);}
  else{digitalWrite(p12, LOW);}
  if (v13 == 1){digitalWrite(p13, HIGH);}
  else{digitalWrite(p13, LOW);}
  if (v14 == 1){digitalWrite(p14, HIGH);}
  else{digitalWrite(p14, LOW);}
  if (v15 == 1){digitalWrite(p15, HIGH);}
  else{digitalWrite(p15, LOW);}
  if (v16 == 1){digitalWrite(p16, HIGH);}
  else{digitalWrite(p16, LOW);}
  if (v17 == 1){digitalWrite(p17, HIGH);}
  else{digitalWrite(p17, LOW);}
```

```
  if (v18 == 1){digitalWrite(p18, HIGH);}
  else{digitalWrite(p18, LOW);}
  if (v19 == 1){digitalWrite(p19, HIGH);}
  else{digitalWrite(p19, LOW);}
  if (v20 == 1){digitalWrite(p20, HIGH);}
  else{digitalWrite(p20, LOW);}
  if (v21 == 1){digitalWrite(p21, HIGH);}
  else{digitalWrite(p21, LOW);}
  if (v22 == 1){digitalWrite(p22, HIGH);}
  else{digitalWrite(p22, LOW);}
  if (v23 == 1){digitalWrite(p23, HIGH);}
  else{digitalWrite(p23, LOW);}
  if (v24 == 1){digitalWrite(p24, HIGH);}
  else{digitalWrite(p24, LOW);}
}

void setup() {
  Serial.begin(9600);
  pinMode(p1, OUTPUT);pinMode(p2, OUTPUT);pinMode(p3, OUTPUT);pinMode(p4,
OUTPUT);pinMode(p5, OUTPUT);pinMode(p6, OUTPUT); pinMode(p7, OUTPUT);  pinMode(p8,
OUTPUT);  pinMode(p9, OUTPUT);  pinMode(p10, OUTPUT);  pinMode(p11, OUTPUT);
pinMode(p12, OUTPUT);  pinMode(p13, OUTPUT);  pinMode(p14, OUTPUT);  pinMode(p15,
OUTPUT);  pinMode(p16, OUTPUT);  pinMode(p17, OUTPUT);  pinMode(p18, OUTPUT);
pinMode(p19, OUTPUT);  pinMode(p20, OUTPUT);  pinMode(p21, OUTPUT); pinMode(p22,
OUTPUT);pinMode(p23, OUTPUT);pinMode(p24, OUTPUT);
  delay(1000);
  digitalWrite(p1, LOW);  digitalWrite(p2, LOW);  digitalWrite(p3, LOW);  digitalWrite(p4, LOW);
digitalWrite(p5, LOW);digitalWrite(p6, LOW);  digitalWrite(p7, LOW);  digitalWrite(p8, LOW);
digitalWrite(p9, LOW);  digitalWrite(p10, LOW);  digitalWrite(p11, LOW);  digitalWrite(p12, LOW);
digitalWrite(p13, LOW);  digitalWrite(p14, LOW);  digitalWrite(p15, LOW);  digitalWrite(p16, LOW);
digitalWrite(p17, LOW);  digitalWrite(p18, LOW);  digitalWrite(p19, LOW);  digitalWrite(p20, LOW);
digitalWrite(p21, LOW);  digitalWrite(p22, LOW);  digitalWrite(p23, LOW);  digitalWrite(p24, LOW);
}

void loop() {
  // if we get a valid byte, read analog ins:
  if (Serial.available() > 0) {
    // get incoming byte:
char    val = Serial.read();
    if(val == 'a'){       //C -> Waste
      setallvalves(1,0,0,1,0,0,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
      }
    if(val == 'b'){       //B -> Waste
      setallvalves(0,1,1,0,0,0,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
      }
    if(val == 'c'){       //A -> Waste
      setallvalves(1,0,1,0,0,0,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
      }
    if(val == 'd'){       //A -> 7,8
      setallvalves(1,0,1,0,1,0,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
      }
```

```
1610        if(val == 'e'){       //A -> 11,12
1611          setallvalves(1,0,1,0,1,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
1612          }
1613        if(val == 'f'){       //A -> All
1614          setallvalves(1,0,1,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1615          }
1616        if(val == 'g'){       //B -> All
1617          setallvalves(0,1,1,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1618          }
1619        if(val == 'h'){       //C -> All
1620          setallvalves(1,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1621          }
1622        if(val == 'i'){       //A -> First 4
1623          setallvalves(1,0,1,0,1,0,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1624          }
1625        if(val == 'j'){       //B -> First 4
1626          setallvalves(0,1,1,0,1,0,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1627          }
1628        if(val == 'k'){       //C -> First 4
1629          setallvalves(1,0,0,1,1,0,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1630          }
1631        if(val == 'l'){       //A -> Last 4
1632          setallvalves(1,0,1,0,1,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1633          }
1634        if(val == 'm'){       //B -> Last 4
1635          setallvalves(0,1,1,0,1,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1636          }
1637        if(val == 'n'){       //C -> Last 4
1638          setallvalves(1,0,0,1,1,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1639          }
1640        if(val == 'o'){       //All On
1641          setallvalves(1,1,1,1,1,1,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
1642          }
1643
1644         if(val == 'p'){       //D to Waste
1645          setallvalves(0,1,0,1,0,0,1,1,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0);
1646          }
1647         if(val == 'q'){       //D to All
1648          setallvalves(0,1,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1649          }
1650         if(val == 'r'){       //D to Former 4
1651          setallvalves(0,1,0,1,1,0,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1652          }
1653         if(val == 's'){       //D to Later 4
1654          setallvalves(0,1,0,1,1,0,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
1655          }
1656
1657          if(val == 'A'){       //V1 On
1658           digitalWrite(p1, HIGH);
1659          }
1660          if(val == 'B'){       //V2 On
```

```
1661          digitalWrite(p2, HIGH);
1662         }
1663         if(val == 'C'){       //V3 On
1664          digitalWrite(p3, HIGH);
1665         }
1666         if(val == 'D'){       //V4 On
1667          digitalWrite(p4, HIGH);
1668         }
1669         if(val == 'E'){       //V5 On
1670          digitalWrite(p5, HIGH);
1671         }
1672         if(val == 'F'){       //V6 On
1673          digitalWrite(p6, HIGH);
1674         }
1675         if(val == 'G'){       //V7 On
1676          digitalWrite(p7, HIGH);
1677         }
1678         if(val == 'H'){       //V8 On
1679          digitalWrite(p8, HIGH);
1680         }
1681         if(val == 'I'){       //V9 On
1682          digitalWrite(p9, HIGH);
1683         }
1684         if(val == 'J'){       //V10 On
1685          digitalWrite(p10, HIGH);
1686         }
1687         if(val == 'K'){       //V11 On
1688          digitalWrite(p11, HIGH);
1689         }
1690         if(val == 'L'){       //V12 On
1691          digitalWrite(p12, HIGH);
1692         }
1693         if(val == 'M'){       //V1 Off
1694          digitalWrite(p1, LOW);
1695         }
1696         if(val == 'N'){       //V2 Off
1697          digitalWrite(p2, LOW);
1698         }
1699         if(val == 'O'){       //V3 Off
1700          digitalWrite(p3, LOW);
1701         }
1702         if(val == 'P'){       //V4 Off
1703          digitalWrite(p4, LOW);
1704         }
1705         if(val == 'Q'){       //V5 Off
1706          digitalWrite(p5, LOW);
1707         }
1708         if(val == 'R'){       //V6 Off
1709          digitalWrite(p6, LOW);
1710         }
1711         if(val == 'S'){       //V7 Off
```

```
1712            digitalWrite(p7, LOW);
1713           }
1714           if(val == 'T'){       //V8 Off
1715            digitalWrite(p8, LOW);
1716           }
1717           if(val == 'U'){       //V9 Off
1718            digitalWrite(p9, LOW);
1719           }
1720           if(val == 'V'){       //V10 Off
1721            digitalWrite(p10, LOW);
1722           }
1723           if(val == 'W'){       //V11 Off
1724            digitalWrite(p11, LOW);
1725           }
1726           if(val == 'X'){       //V12 Off
1727            digitalWrite(p12, LOW);
1728           }
1729         }
1730       }
```