FLOWCHART FOR TRANSMITTER CIRCUIT
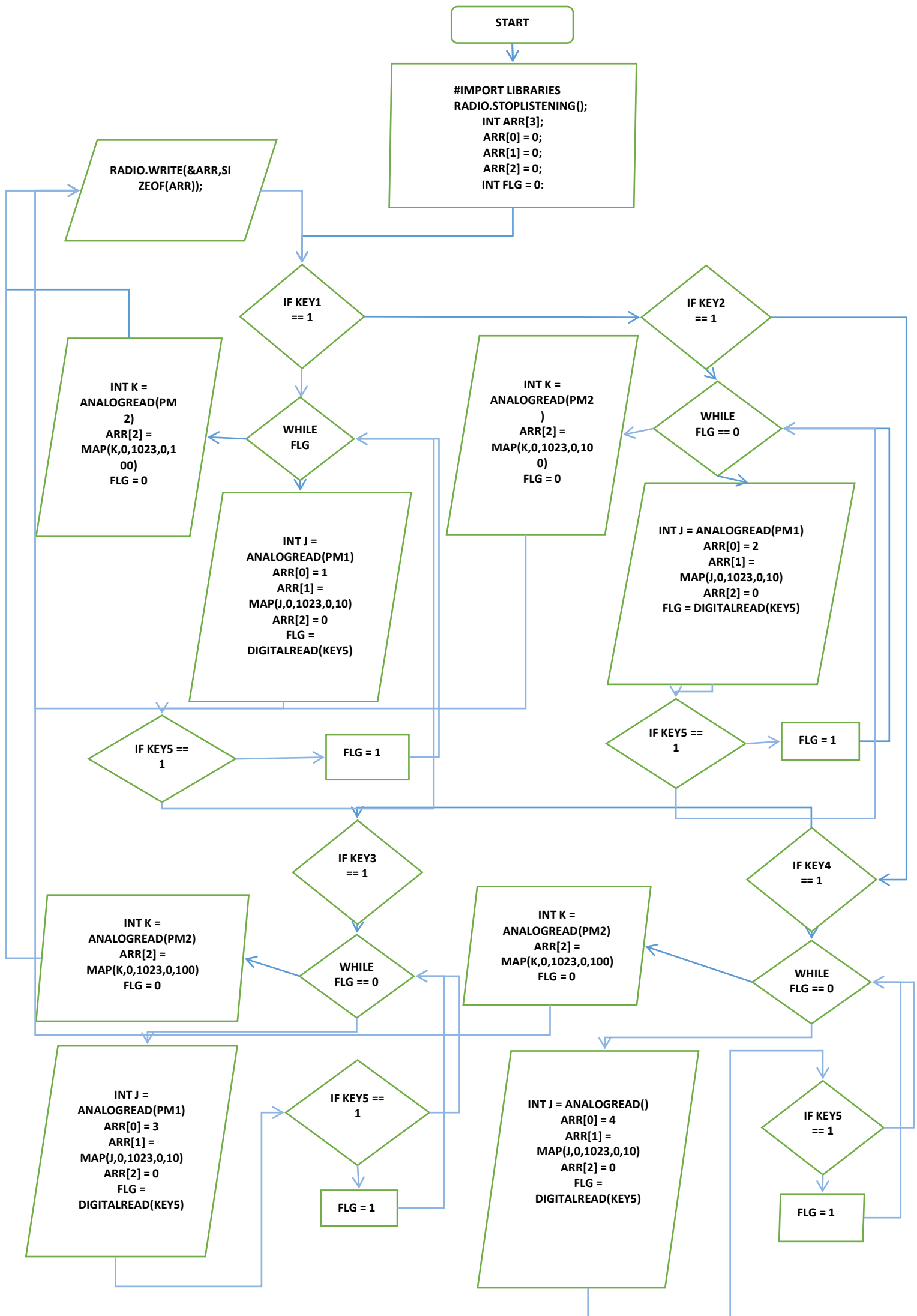
```
                                                              START


                                                    #IMPORT LIBRARIES
                                                    RADIO.STOPLISTENING();
                                                        INT ARR[3];
    RADIO.WRITE(&ARR,SI                                  ARR[0] = 0;
    ZEOF(ARR));                                          ARR[1] = 0;
                                                         ARR[2] = 0;
                                                        INT FLG = 0;


                              IF KEY1                                    IF KEY2
                              == 1                                       == 1


      INT K =                                                                    WHILE
      ANALOGREAD(PM      INT K =                     INT K =                      FLG == 0
      2)                 ANALOGREAD(PM2              ANALOGREAD(PM2
      ARR[2] =           WHILE       )               )
      MAP(K,0,1023,0,1   FLG          ARR[2] =       ARR[2] =
      00)                             MAP(K,0,1023,0,10   INT J = ANALOGREAD(PM1)
      FLG = 0                         0)                  ARR[0] = 2
                                      FLG = 0             ARR[1] =
                                                          MAP(J,0,1023,0,10)
                              INT J =                      ARR[2] = 0
                              ANALOGREAD(PM1)              FLG = DIGITALREAD(KEY5)
                              ARR[0] = 1
                              ARR[1] =
                              MAP(J,0,1023,0,10)
                              ARR[2] = 0
                              FLG =
                              DIGITALREAD(KEY5)


           IF KEY5 ==                                 IF KEY5 ==       FLG = 1
           1              FLG = 1                      1


                              IF KEY3                                    IF KEY4
                              == 1                                       == 1


      INT K =                                    INT K =
      ANALOGREAD(PM2)          WHILE             ANALOGREAD(PM2)                 WHILE
      ARR[2] =                 FLG == 0          ARR[2] =                        FLG == 0
      MAP(K,0,1023,0,100)                        MAP(K,0,1023,0,100)
      FLG = 0                                    FLG = 0


      INT J =                  IF KEY5 ==        INT J = ANALOGREAD()             IF KEY5
      ANALOGREAD(PM1)          1                 ARR[0] = 4                       == 1
      ARR[0] = 3                                 ARR[1] =
      ARR[1] =                                   MAP(J,0,1023,0,10)
      MAP(J,0,1023,0,10)                         ARR[2] = 0
      ARR[2] = 0                                 FLG =
      FLG =                    FLG = 1           DIGITALREAD(KEY5)              FLG = 1
      DIGITALREAD(KEY5)
```

FLOWCHART FOR RECIEVER CIRCUIT

```
START
```
→
```
IMPORT THE LIBRARIES AND DEFINE THE PINS
CONNECTED TO DIAC AND RELAYS AS INTEGER
```
→
```
INT ARR1[4];INT ARR2[4];INT
ARR3[4];INT ARR4[4];INT PIN[4];
```

IF A2 == 0 ← **FLOAT A2 = ANALOGREAD(A2);** ← **IF RADIO.AVAILABLE()** → **RADIO.READ(ST,3);**

IF FLG == 0 → **INT T = MILLIS() FLG = 1**

IF ST[0] == 2 **IF ST[0] == 1**

```
ARR2[0] = ST[0]
ARR2[1] = ST[1]
ARR2[2] = ST[2]
```

```
ARR1[0] = ST[0]
ARR1[1] = ST[1]
ARR1[2] = ST[2]
```

```
DELAY(DY[0]);
DIGITALWRITE(PIN[0],HIGH);
DELAY(1);
DIGITALWRITE(PIN[0],LOW);
DELAY(DY[1]-DY[0]-1);
DIGITALWRITE(PIN[1],HIGH);
DELAY(1);
DIGITALWRITE(PIN[1],LOW);
DELAY(DY[2]-DY[1]-1);
DIGITALWRITE(PIN[2],HIGH);
DELAY(1);
DIGITALWRITE(PIN[2],LOW);
DELAY(DY[3]-DY[2]-1);
DIGITALWRITE(PIN[3],HIGH);
DELAY(1);
DIGITALWRITE(PIN[3],LOW);
```

IF ST[0] == 4 → **IF ST[0] == 3**

```
ARR4[0] = ST[0]
ARR4[1] = ST[1]
ARR4[2] = ST[2]
```

```
ARR3[0] = ST[0]
ARR3[1] = ST[1]
ARR3[2] = ST[2]
```

IF MILLIS()-T > ARR1[2] → **IF MILLIS()-T > ARR2[2]**

```
INT DY [4];
DY[0] = ARR1[1];
DY[1] = ARR2[1];
DY[2] = ARR3[1];
DY[3] = ARR4[1];
PIN[0] = 13;
PIN[0] = 14;
PIN[0] = 15;
PIN[0] = 16;
```

FOR(INT J = 0,J<3,J++)

DIGITALWRITE(R1, 0); **DIGITALWRITE(R2, 0);**

FOR(INT I = 0,I<3,I++)

IF MILLIS()-T > ARR3[2] ← **IF MILLIS()-T > ARR4[2]**

IF DY[I] >DY[I+1]

DIGITALWRITE(R3, 0); **DIGITALWRITE(R4, 0);**

```
DY[I+1] += DY[I];
DY[I] = DY[I+1] - DY[I];
DY[I+1] = DY[I+1] - DY[I];
PIN[I+1] += PIN[I];
PIN[I] = PIN[I+1] - PIN[I];
PIN[I+1] = PIN[I+1] - PIN[I];
```