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/***** */
/*  popurri para Arduino  */
/***** */

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/* declaración de variables */
int spk=13; // altavoz a GND y pin 13
int c[5]={131,262,523,1046,2093}; // frecuencias 4 octavas de Do
int cs[5]={139,277,554,1108,2217}; // Do#
int d[5]={147,294,587,1175,2349}; // Re
int ds[5]={156,311,622,1244,2489}; // Re#
int e[5]={165,330,659,1319,2637}; // Mi
int f[5]={175,349,698,1397,2794}; // Fa
int fs[5]={185,370,740,1480,2960}; // Fa#
int g[5]={196,392,784,1568,3136}; // Sol
int gs[5]={208,415,831,1661,3322}; // Sol#
int a[5]={220,440,880,1760,3520}; // La
int as[5]={233,466,932,1866,3729}; // La#
int b[5]={247,494,988,1976,3951}; // Si

void nota(int a, int b); // declaracion de la funcion auxiliar. Recibe dos numeros entero
s.

void setup()
{
/***** */
/*  HARRY POTTER  */
/***** */
nota(b[2], 500);
nota(e[3],1000);
nota(g[3], 250);
nota(fs[3],250);
nota(e[3],1000);
nota(b[3],500);
nota(a[3],1250);
nota(fs[3],1000);
nota(b[2], 500);
nota(e[3],1000);
nota(g[3],250);
nota(fs[3],250);
nota(d[3],1000);
nota(e[3],500 );
nota(b[2],1000 );
noTone(spk); delay(1000);
nota(b[2], 500);
nota(e[3],1000);
nota(g[3], 250);
nota(fs[3],250);
nota(e[3],1000);
nota(b[3],500);
nota(d[4],1000);
nota(cs[4],500);
nota(c[4],1000);
nota(a[3],500);

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nota(c[4],1000);
nota(b[3],250);
nota(as[3],250);
nota(b[2],1000);
nota(g[3],500);
nota(e[3],1000);
noTone(sp);
delay(2000);

/*****/
/*  STAR WARS  */
/*****/
/**** tema principal ****/
nota(d[1],150);noTone(sp);delay(50);
nota(d[1],150);noTone(sp);delay(50);
nota(d[1],150);noTone(sp);delay(50);
nota(g[1],900);noTone(sp);delay(150);
nota(d[2],900);noTone(sp);delay(50);
nota(c[2],150);noTone(sp);delay(50);
nota(b[1],150);noTone(sp);delay(50);
nota(a[1],150);noTone(sp);delay(50);
nota(g[2],900);noTone(sp);delay(150);
nota(d[2],900);noTone(sp);delay(100);
nota(c[2],150);noTone(sp);delay(50);
nota(b[1],150);noTone(sp);delay(50);
nota(a[1],150);noTone(sp);delay(50);
nota(g[2],900);noTone(sp);delay(150);
nota(d[2],900);noTone(sp);delay(100);
nota(c[2],150);noTone(sp);delay(50);
nota(b[1],150);noTone(sp);delay(50);
nota(c[2],150);noTone(sp);delay(50);
nota(a[1],1200);noTone(sp);delay(2000);

/**** marcha del imperio ****/
nota(g[2],500);noTone(sp);delay(100);
nota(g[2],500);noTone(sp);delay(100);
nota(g[2],500);noTone(sp);delay(100);
nota(ds[2],500);noTone(sp);delay(1);
nota(as[2],125);noTone(sp);delay(25);
nota(g[2],500);noTone(sp);delay(100);
nota(ds[2],500);noTone(sp);delay(1);
nota(as[2],125);noTone(sp);delay(25);
nota(g[2],500);
noTone(sp);delay(2000);

/*****/
/*  entre dos aguas  */
/*****/
nota(a[1],400);noTone(sp);delay(400);
nota(e[1],400);noTone(sp);delay(400);
nota(a[1],400);noTone(sp);delay(200);
nota(e[1],200);noTone(sp);delay(200);
nota(a[1],200);noTone(sp);delay(200);
nota(as[1],100);noTone(sp);delay(100);
nota(b[1],400);noTone(sp);delay(400);

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nota(fs[1],400);noTone(spk);delay(400);
nota(b[1],400);noTone(spk);delay(200);
nota(fs[1],200);noTone(spk);delay(200);
nota(b[1],200);noTone(spk);delay(200);
nota(as[1],100);noTone(spk);delay(100);
nota(a[1],400);noTone(spk);delay(400);
nota(e[1],400);noTone(spk);delay(400);
nota(a[1],400);noTone(spk);delay(400);
}

void nota(int frec, int t)
{
  tone(spk,frec);    // suena la nota frec recibida
  delay(t);         // para despues de un tiempo t
}

void loop()
{
}
```