#include <Geiger.h>

void Ping(uint8\_t Pin){

/\*

Creates the single pulse for the iconic Geiger counter sound

Inputs: The pin that is connected to the buzzer

\*/

//Does not stop the CPU but a bit more quiet

/\*

static uint32\_t OldTime;

uint32\_t NewTime = 0;

NewTime = millis();

digitalWrite(Pin,1);

if (NewTime - OldTime >= 1 ) {

OldTime = NewTime;

digitalWrite(Pin,0);

}

\*/

//Does stop the CPU but for some reason more loud...

digitalWrite(Pin,1);

delay(1);

digitalWrite(Pin,0);

}

void Geiger(uint8\_t Pin,uint16\_t Intensity){

/\*

Creates the geiger sound using the buzzer on Pin, with the given Intesity. The intesity could be given between 0-100.

\*/

static uint32\_t OldTime;

static bool Flag;

bool Off;

uint32\_t NewTime = 0;

static uint16\_t WaitTime = 0;

NewTime = millis();

Serial.println(Intensity);

if (Intensity == 0){

Off = true;

} else {

Off = false;

}

if (!Off){

if (Flag){

Intensity = map(Intensity,0,100,500,0);

WaitTime = rand() % Intensity + (Intensity \* 0.5);

Serial.println(WaitTime);

Flag = false;

}

if (NewTime - OldTime >= WaitTime) {

OldTime = NewTime;

Ping(Pin);

Flag = true;

}

}

}