```
const int WAITTIME = 50;
const int STEP = 5;
void setup(){
    pinMode( LED_PIN, OUTPUT );
}
void loop(){
   int i;
    i = 0;
    while ( i <= 255 ){
        analogWrite( LED_PIN, i );
       delay( WAITTIME );
        i = i + STEP;
    }
    i = 255;
   while ( i >= 0 ){
        analogWrite( LED_PIN, i );
       delay( WAITTIME );
       i = i - STEP;
    }
}
```