

PC-GO

EXPERIMENTAL PROJECT OF AUTOGENERATED MUSIC BY VEGETAL LIVING SYSTEMS



THE IDEA BEHIND



SOUND FROM PLANTS THE IDEA BEHIND

The GreenSound project
aim to experiment
the transformation process
between energy and music
in vegetables



OF COURSE, WE ARE NOT THE FIRST ONES...

SO FAR MANY HAVE TEMPTED



MUSICA FRATTALE E AUTOGENERATIVA

<http://www.marcostefanelli.com>

MEET THE SONIC ARTIST MAKING
MUSIC WITH PLANTS: SOUND BUILDERS

<https://goo.gl/WDjKvT>

ELECTRICAL EXPERIMENTS WITH PLANTS THAT
COUNT AND COMMUNICATE | GREG GAGE

<https://goo.gl/2regc7>

MUSIC OF THE PLANTS - HOW IT WORKS

<https://goo.gl/UXPbQH>

IN a single month
We built from scratch:
a 24/7 acquisition system
(Linux server + Arduino)



SOUND FROM PLANTS THE IDEA BEHIND

We also have built
from scratch a panel
to make live tuning
of the signal to MIDI & USB
sound processing systems



WE ARE PROUD TO PRESENT YOU....



THE GREENSOUND SYSTEM 1.0

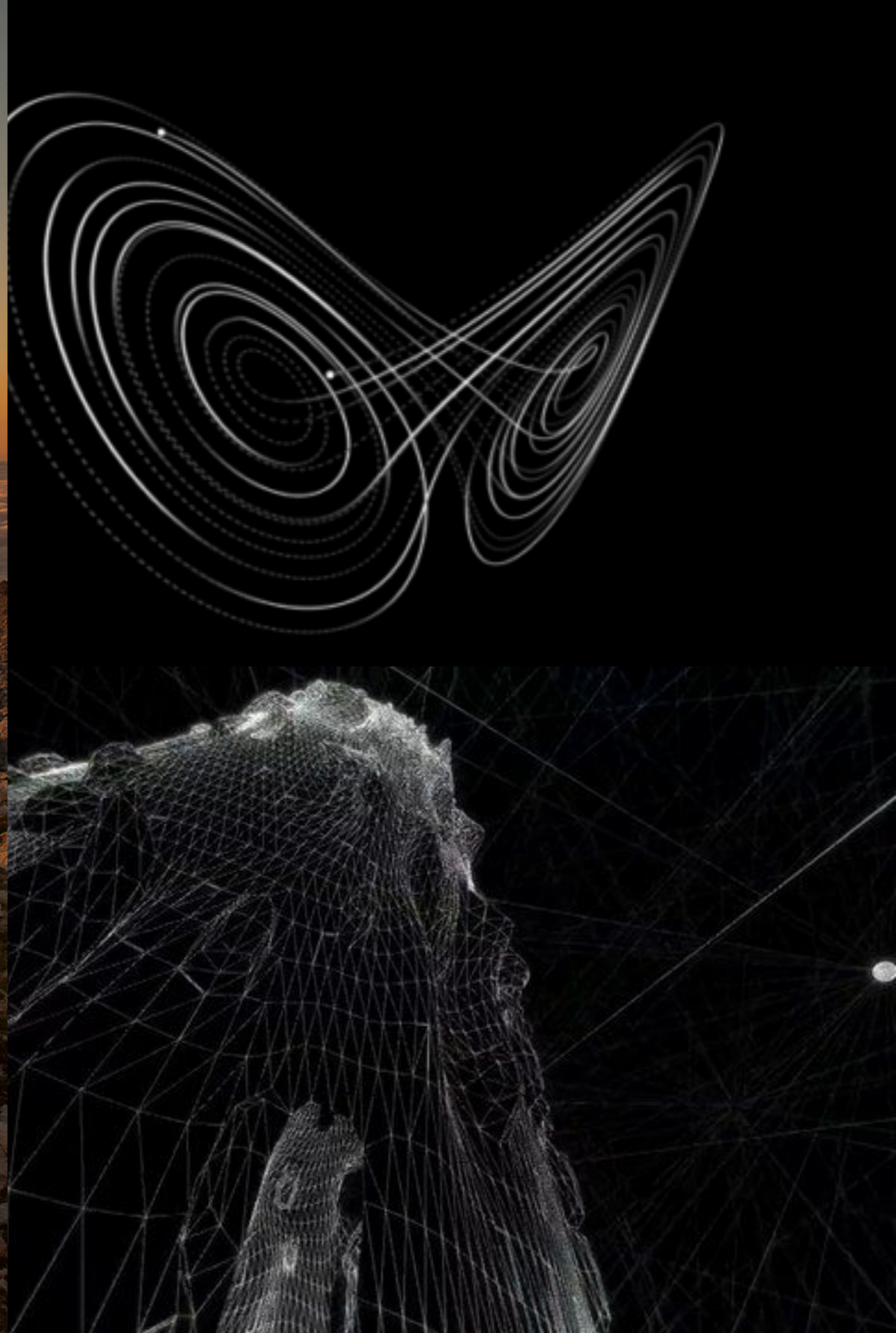
FEATURES

ANALOG CONTROL OF 5
PROPERTIES FOR THE GENERATED
MIDI SEQUENCES:

- SENSITIVITY
- PITCH
- MIDI VELOCITY
- NOTE DELAY
- NOTE SUSTAIN



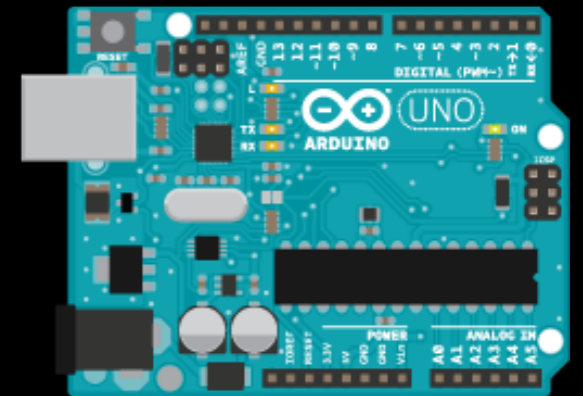
And we bet
that there is a lot
to explore and
discover yet



THE AIM OF THE PROJECT

USING THE LATEST
HARDWARE AND SOFTWARE
INSTRUMENTS...

- MAX/MSP
- PRO TOOLS
- Arduino
- Processing
- Ableton Live



WE WANT TO:

GENERATE
CLASSIFY
RE-ELABORATE

AUTOGENERATED MUSIC FROM DIFFERENT KIND
OF VEGETAL "LIVING SYSTEMS"

WHAT WE SEEK FOR:

- A RELEVANT AND REPRESENTATIVE REFERENCE SAMPLE
TAXONOMICALLY ORDERED FOR COMPARISONS
- THE AVAILABILITY TO LEAVE THE PLANTS FOR A PERIOD
OF MINIMUM TWO MONTHS FOR DATA ACQUIRING AND
MONITORING
- PASSIONATE AND SKILFUL PERSONS WHO WANT TO JOIN
THE ADVENTURE AND CONTRIBUTE TO THE RESEARCH IN
ANY WAY



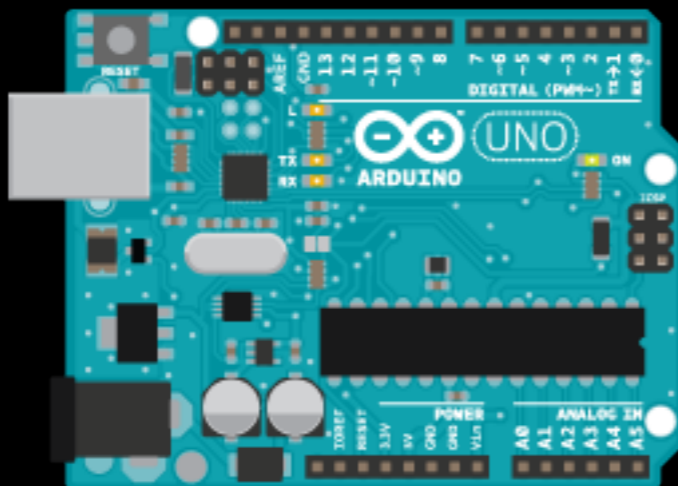
WHAT WE OFFER:

- MAXIMUM RESONANCE (INTERNATIONAL LEVEL) AND CROSS-CROSS-DISCIPLINE APPLICATIONS
- STANDS AND VISIBILITY FOR THE MAKER FAIRE 2019
- THE POSSIBILITY TO EXTEND THE PROCESS IN OTHER ACADEMIC FIELDS (COMPUTER SCIENCE, DESIGN, MODERN ARTS, MARKETING ETC.)



PROJECT SCHEME:

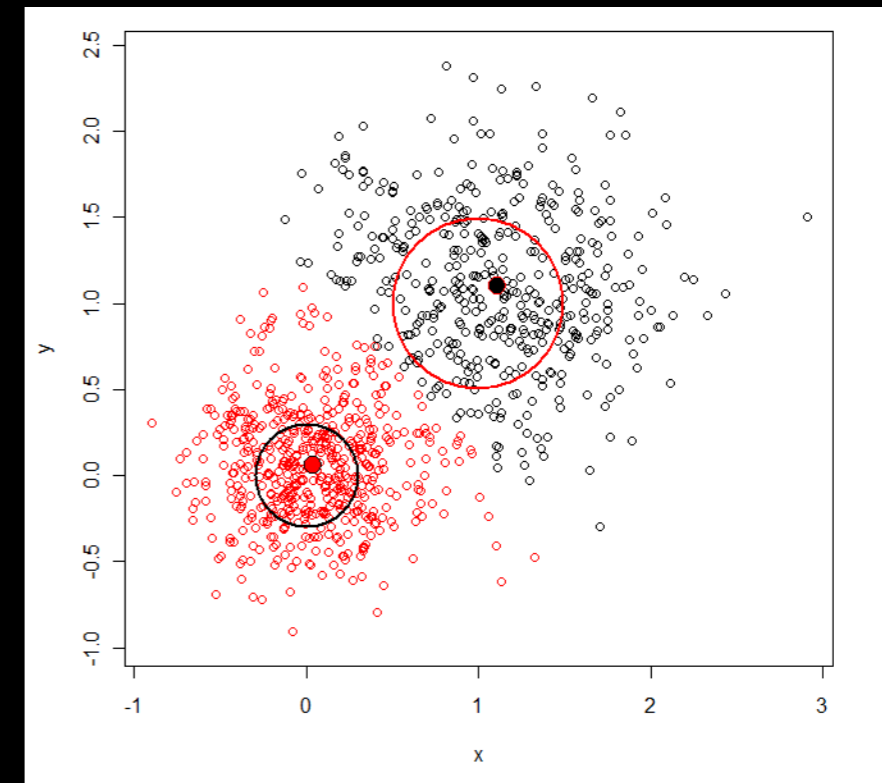
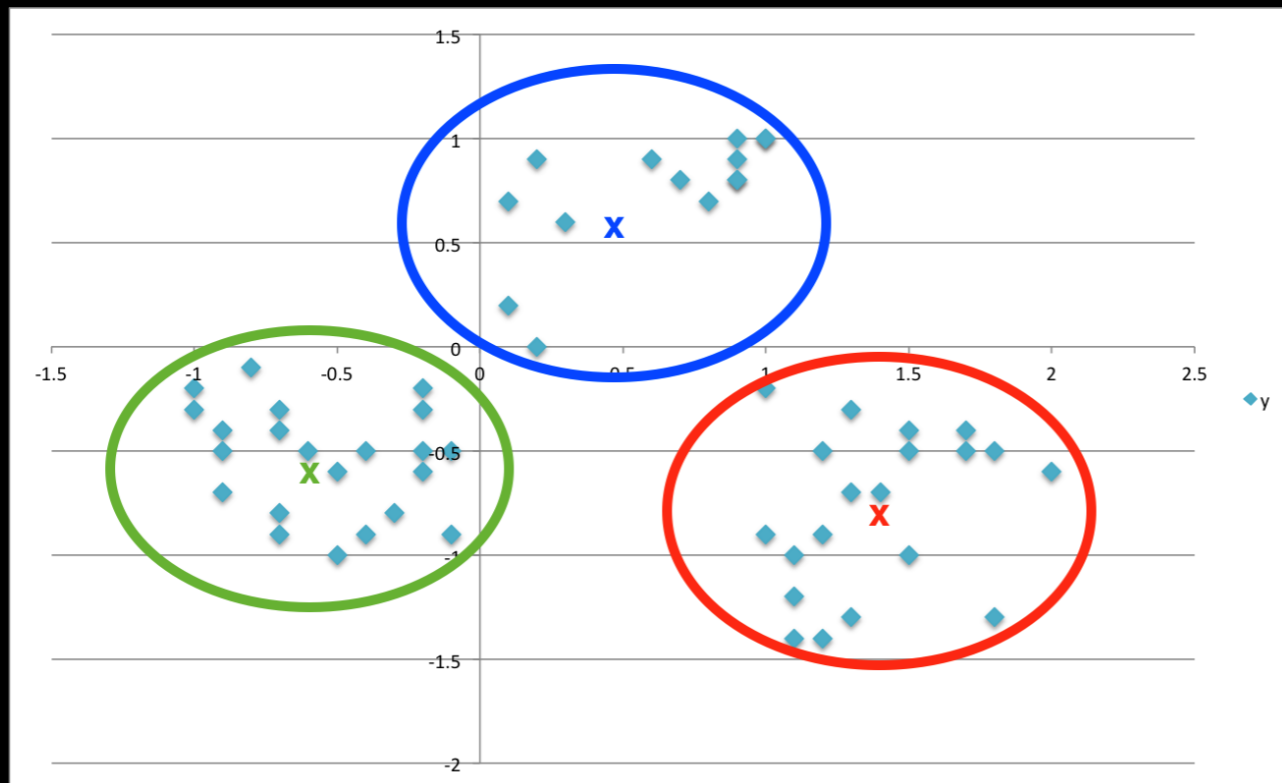
WE CONNECTED THE PLANTS TO
THE ANALOG INPUT OF A SIMPLE
ARDUINO
(THE ENTIRE PROJECT IS
OPENSOURCE AND FREE TO
DOWNLOAD ONLINE - WE JUST
ASK TO MENTION OUR WORK,
PLEASE)



SO NOW WHAT?

RECEIVED DATA FROM PLANT MUST BE CATALOGUE AND FREELY
DISTRIBUTE ONLINE TO WHOM WHO WANT TO USE IT FOR ITS
EXPERIMENTATIONS (RESEARCH CENTRES ETC)

**EVERY PLANT HAS HIS UNIQUE PATTERN AND MANY TECHNIQUES ON
DATASET COULD BE USED TO INFER PROPERTIES AND CIRCUMSTANCES
RELATED TO PLANT STATUS AND LIFE (CLUSTERING ALGORITHMS,
MATCHING, CORRELATIONS, MACHINE LEARNING ETC.)**



- 1- Stefano Mancuso – Brilliant Green: The Surprising History and Science of Plant Intelligence
- 2 – Update on the Effects of Sound Wave on Plants – Md.Emran Khan Chowdhury, Hyoun-Sub Lim and Hanhong Bae
- 3- Update on the Effects of Sound Wave on Plants Md. Emran Khan Chowdhury, Hyoun-Sub Lim and Hanhong Bae
- 4- Plants respond to leaf vibrations caused by insect herbivore chewing – H. M. Appel & R. B. Cocroft – Oecologia, August 2014, Volume 175, Issue 4, pp 1257–1266
- 5- Peter Tompkins & Christopher Bird – “The secret life of plants”
- 6- Silvia Buffagni – “The music of the plants”
- 7- Paco Calvo – The Philosophy of Plant Neurobiology: A Manifesto
- 8- Ian T. Baldwin & Jack C. Schultz – “Rapid changes in tree leaf chemistry induced by damage: evidence for communication between plants”
- 9- Stefano Mancuso – Brilliant Green: The Surprising History and Science of Plant Intelligence