

ESmarlz Creatures
<http://esmarlz.com/>

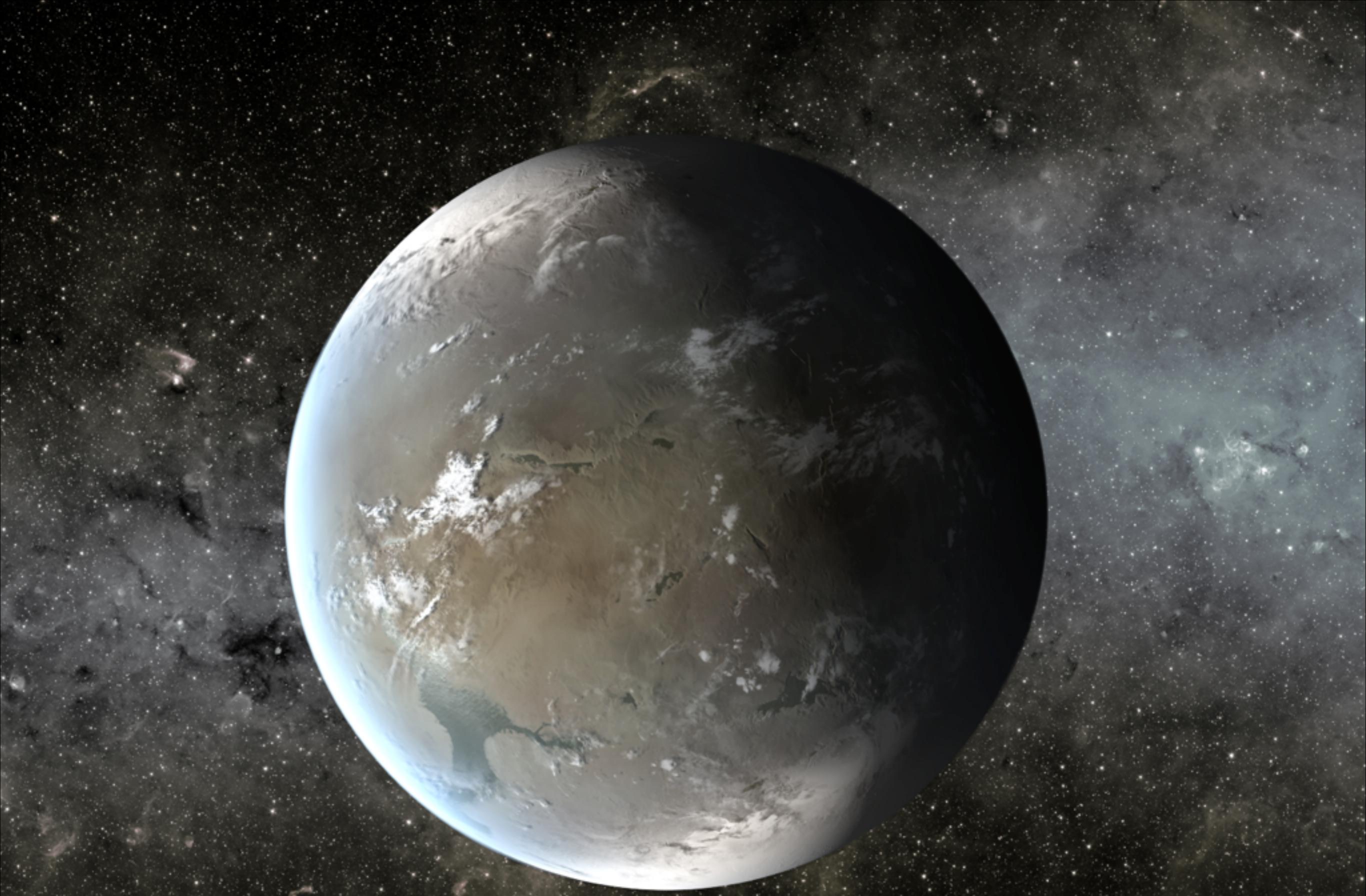
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NEUTRINOS



An annual STEAM Course

Orion

[http://en.wikipedia.org/wiki/Orion_\(constellation\)](http://en.wikipedia.org/wiki/Orion_(constellation))



ESmarlz, a habitable planet in Orion

Technological principles // BEAM robots

- The word "beam" in BEAM robotics is an acronym for Biology, Electronics, Aesthetics, and Mechanics. This is a term that refers to a style of robotics that primarily uses simple analogue circuits, such as comparators, instead of a microprocessor in order to produce an unusually simple design (in comparison to traditional mobile robots) that trades flexibility for robustness and efficiency in performing the task for which it was designed.
- http://en.wikipedia.org/wiki/BEAM_robots

ESmartlz Creatures // Challenge

- Every student has the opportunity to create new creatures to populate a region of the planet.
- Research in biology field to find your favorite creature.
- Once you have an idea, try to design the new creature using your LEGO Technics pieces.
- Every new creature has to incorporate sensors

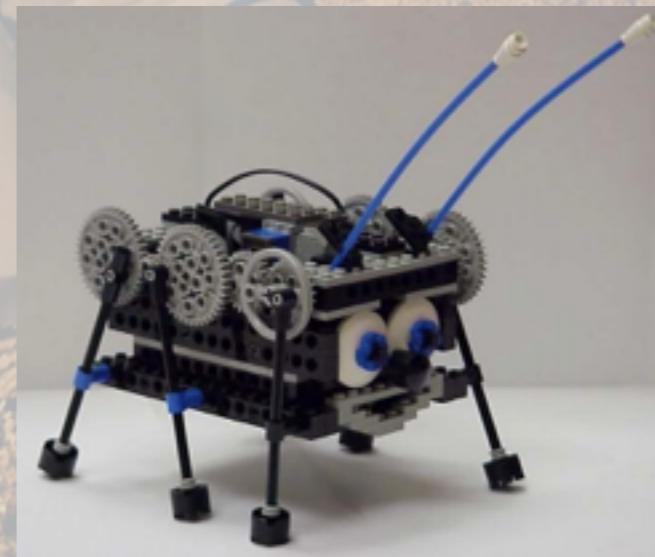
ESmartlz Creatures // Challenge

- Design
- Build prototypes
 - Iterate the ideas
 - Update design
- Develop behaviors
- Create a history about your creature



ESmartlz Creatures // Examples

- Example video:
 - <https://www.youtube.com/watch?v=aMf2dxm5-Aw#t=417>
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ESmartlz Creatures // Rules

- A complete creature includes:
 - a LDD design
 - a EV3 programming
 - a Document with a history about the creature
- **Note:** Student has to send by email the files.

ESmartlz Creatures // Rules

- The student will win the contest if he/she gets the maximum number of points:
 - A complete creature: 100pts
 - An interesting locomotion system: 75pts
 - An interesting BEAM programming: 75pts
 - A creative history: 75pts

ESmartlz Creatures // Prize





Fun and flying cows

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