



Creatures challenge

Creatures

- **Questions:** How build a robot without wheels?
What is your favorite animal? Can you describe his behaviors?
- **Challenges:** Design, Build a Mobile robot without wheels. Later try to add behaviors in the same way to your favorite animal.
- **Goals:** Build a set of creatures interacting by their self in the classroom. Learn to design & build Lego Mindstorms robots. Learn programming.



Creatures

- Every student has the opportunity to create new creatures to populate a region of the classroom.
- 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.



Creatures

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



Creatures

- A complete creature includes:
 - A LDD Design
 - An EV3 program
 - A Document with a history about the creature



Creatures

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



Creatures

- Materials:
 - Lego EV3 core set 45544
 - Win/OSX Computer
 - Meter
 - Calculator



Creatures

- Time Distribution:
 - Science news: 5m.
 - Theory: 10m.
 - 3D Modeling: 15m.
 - Building / Programming: 40 m.
 - Session summary: 5m.





Fun and flying cows