



INTERREG V-A
SLOVENSKÁ REPUBLIKA
ČESKÁ REPUBLIKA



EURÓPSKA ÚNIA
EURÓPSKY FOND
REGIONÁLNEHO ROZVOJA

SPOLOČNE BEZ HRANÍC

„Robotika ...a robot ti tyká“

Využitie v edukačnom procese

Program Interreg V - A
Slovenská republika - Česká republika

Kód projektu: 304011U542

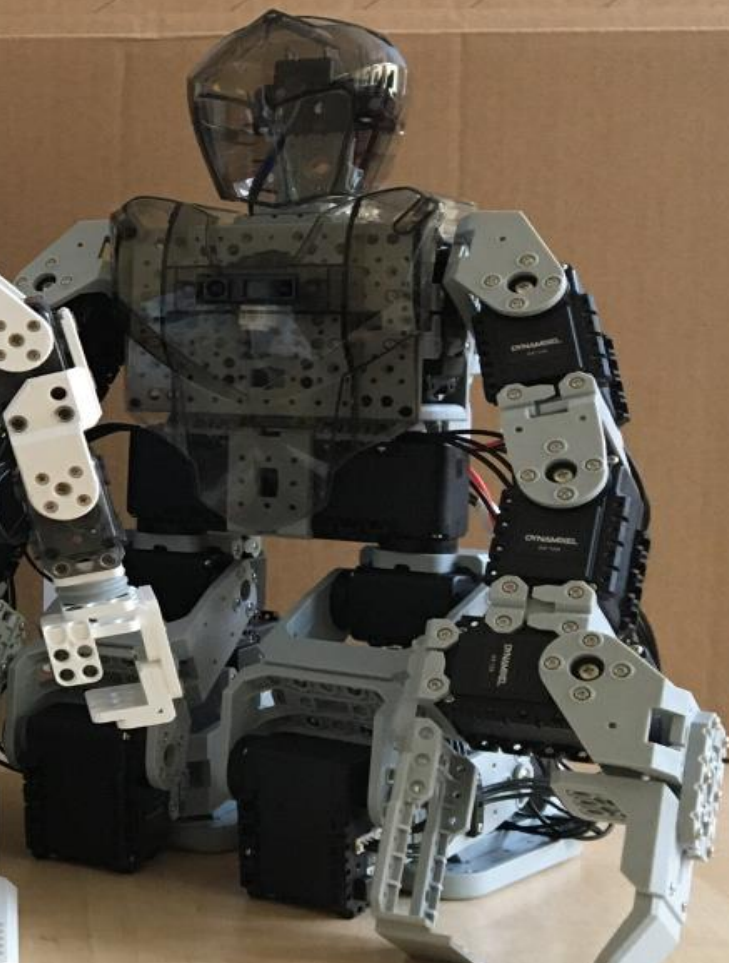
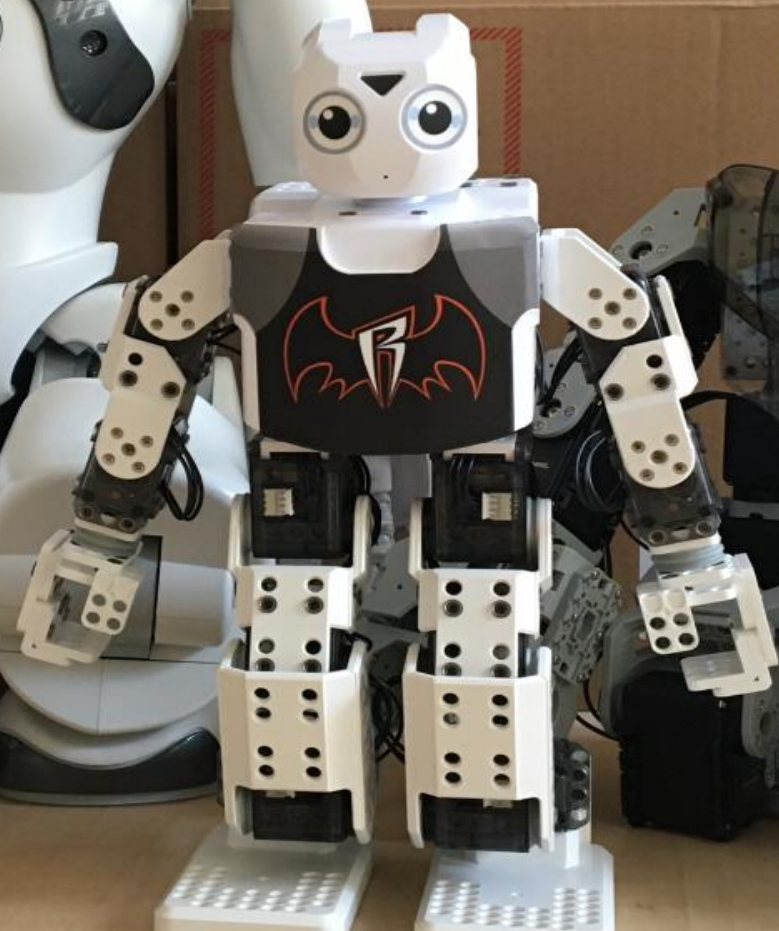
Trvanie projektu: 09/2020 - 06/2021

ROBOTIS PREMIUM

ROBOTIS MINI

ROBOTIS MINI

NAO



ROBOTIS MINI real humanoid

- Humanoid
- aplikácia pre riadenie robota
Android/iOs
- Bluetooth
- ovládanie gestami a hlasom
- editácia pohybov
- možnosť kompletného
preprogramovania



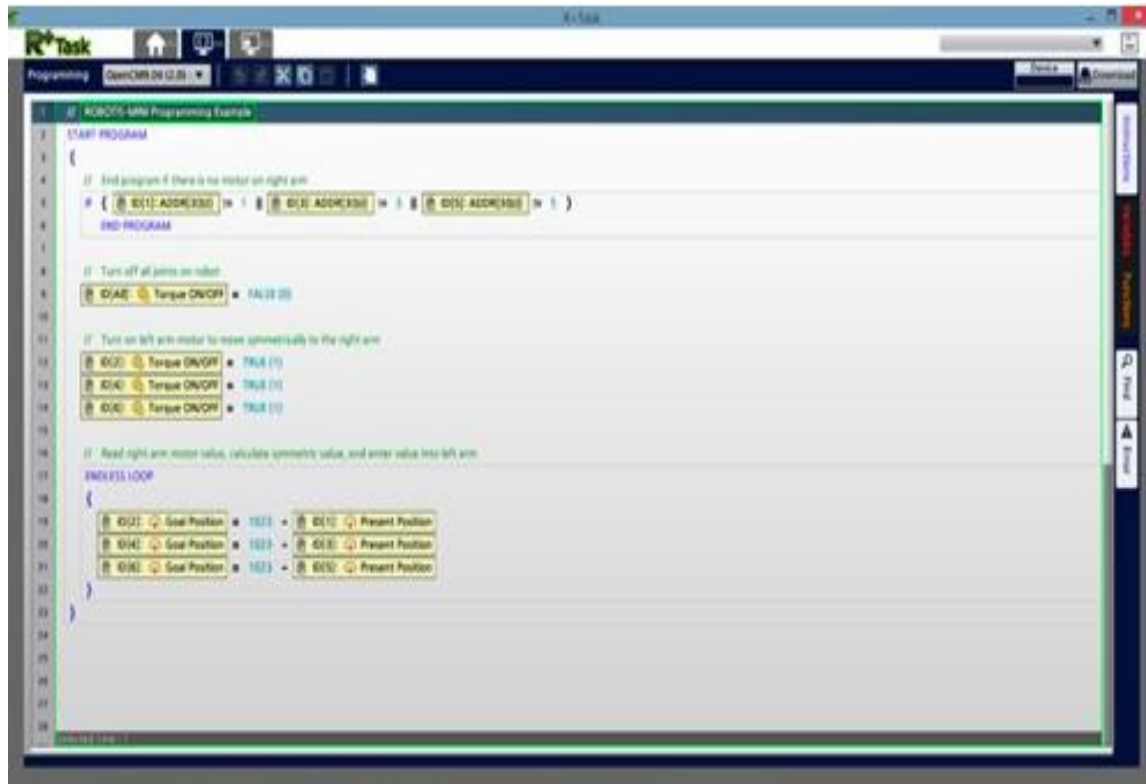
ROBOTIS MINI - ovládanie



ROBOTIS MINI - ovládanie



ROBOTIS MINI - programovanie



ROBOTIS MINI - programovanie

The screenshot displays the R+Motion software interface, which is used for programming and controlling a Robotis Mini robot. The interface is divided into several sections:

- Webcam View:** A window on the left shows a real-time video feed of the physical robot. Below the video is a green 'E3' button.
- 3D Model View:** The central area features a 3D model of the robot on a black platform against a light blue background. A small purple icon is visible in the upper left of this view.
- Robot Pose Table:** A table on the left side of the 3D view displays joint positions for the robot. The table has columns for 'Joint', 'X', 'Y', and 'Z' coordinates. The data is as follows:

Joint	X	Y	Z
1	0	0	0
2	0	0	0
3	73.48	-10.04	0
4	18.49	10.04	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	28.22	16.27	0
11	28.22	16.27	0
12	28.22	16.27	0
13	15.18	16.27	0
14	-15.18	16.27	0
15	0	0	0
16	0	0	0
17	46.37	0.11	0
- Joint Group Panel:** A panel on the right side of the 3D view lists joint groups and their corresponding joint numbers.
- Control Panels:** At the bottom of the 3D view, there are several control panels, including a 'Positional Programming' section with a dial and buttons.

The video player interface at the bottom shows a progress bar at 15:32 / 20:44 and various control icons. A tooltip 'Celá obrazovka (f)' is visible near the bottom right corner of the software window.

ROBOTIS MINI

Využitie v edukačnom procese

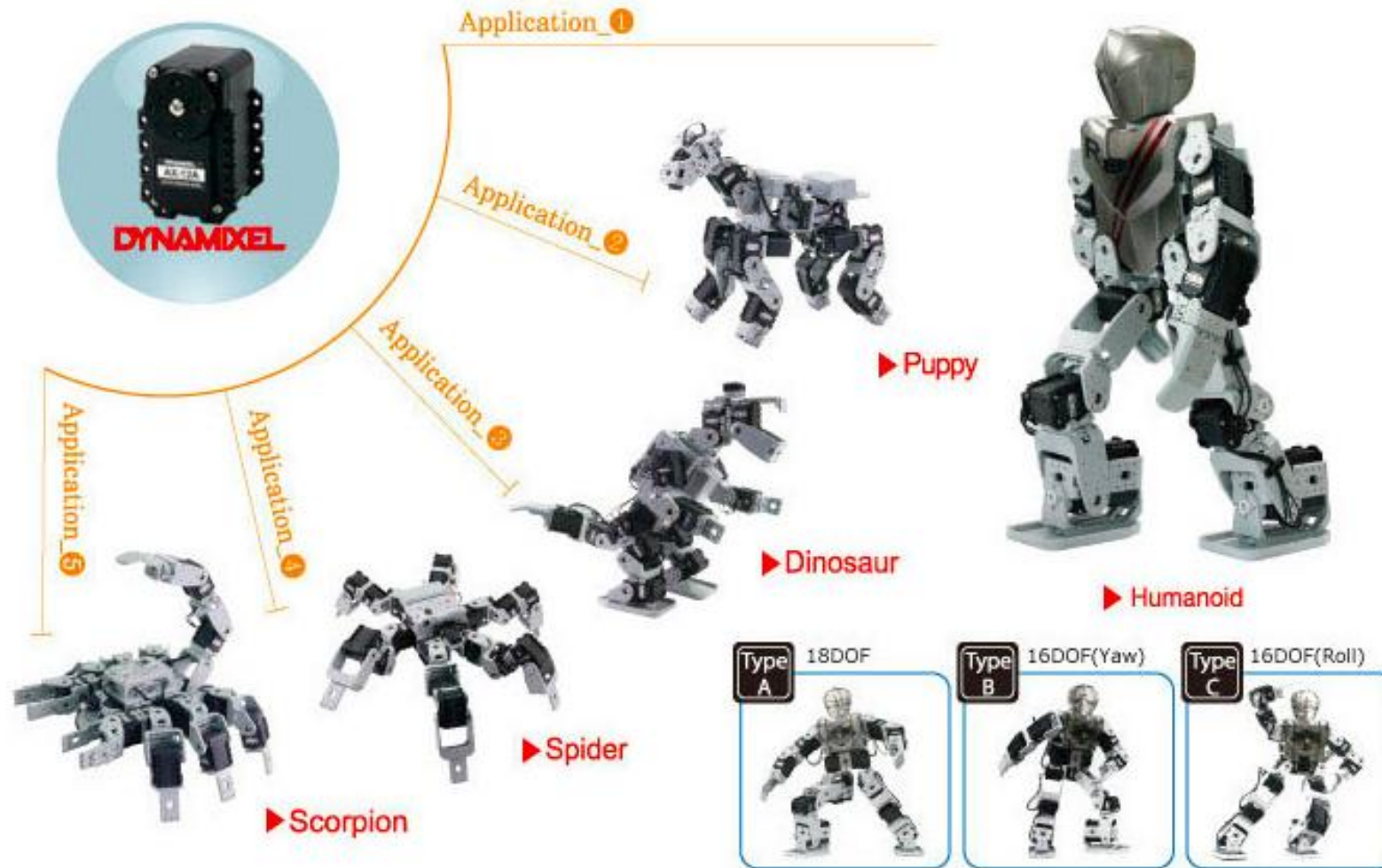
- Futbal, tanec, ... - ovládanie gestami a hlasom
- Nácvik algoritmizácie
- Programovanie v prostredí R+ motion a R+ task
- Vhodné použiť v nižších ročníkoch 8. ročného gymnázia - informatika
- Krúžok – „Robotika“

BIOLOID Premium Robot Kit

- humanoid
- Rôzne snímače vrátane gyroskopu
- DMS a IR RC-100A
- Bluetooth, ZIGbee
- Programovanie - C / C++, C#, Labview, MATLAB, Visual Basic, Java, Python...
- Vytvárajte rôznych robotov pomocou všestranného rozširovacieho mechanizmu



BIOLOID Premium Robot Kit



BIOLOID Premium Robot Kit



BIOLOID Premium Robot Kit

Využitie v edukačnom procese

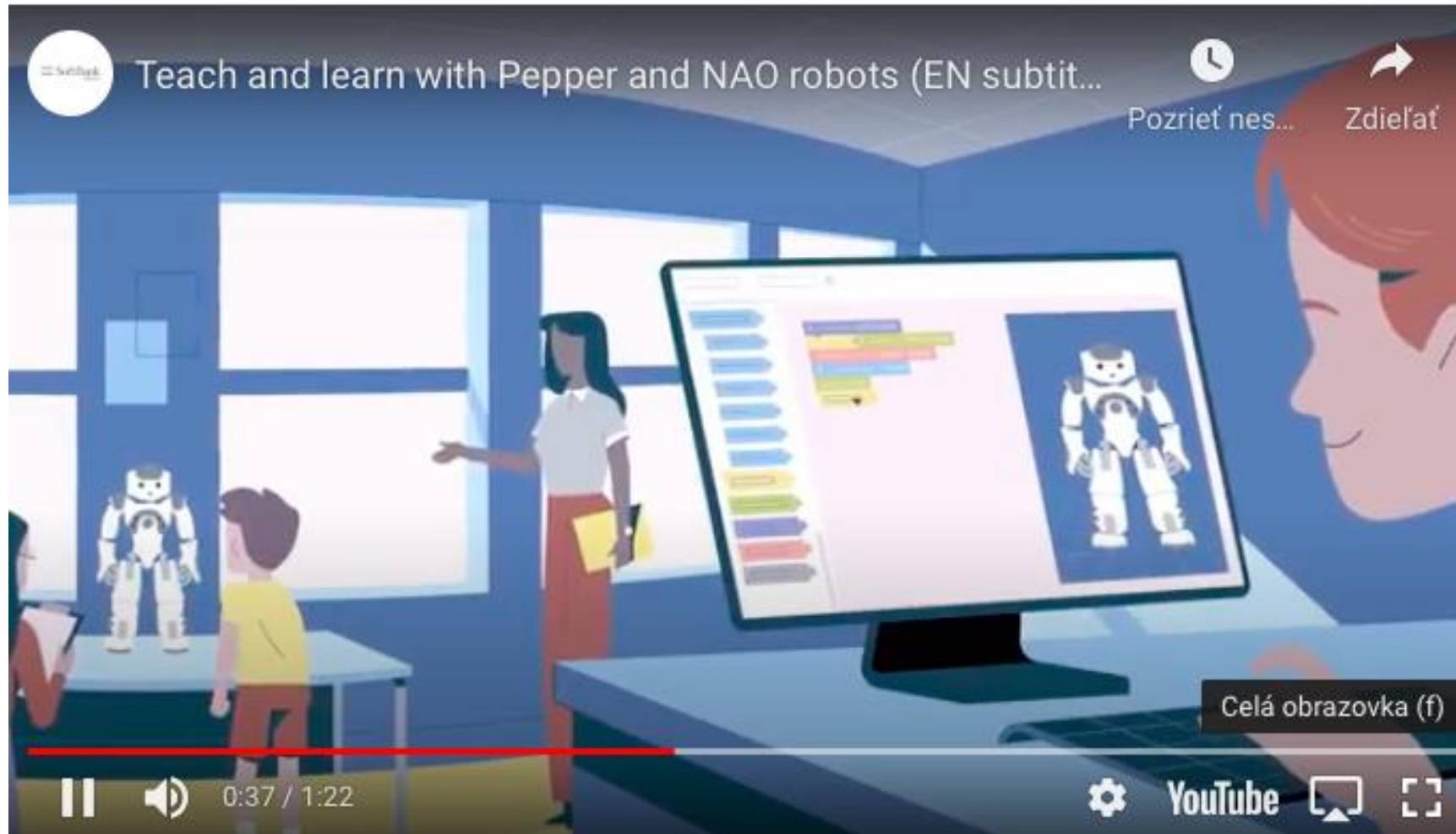
- Nácvik algoritmizácie
- Programovanie v prostredí R+ motion, R+ task, Python
- Možnosť zložiť viacero modelov – variabilita
- Vhodné použiť vo vyšších ročníkoch 8. ročného gymnázia a 4. ročného gymnázia – informatika, cvičenia z informatiky
- Problémové úlohy s bludiskom
- Krúžok – „Robotika“

NAO

- humanoidný robot
- výučba programovania, informatiky, anglického jazyka, matematiky ...
- Apps 2.0 Store
- komunikácia, kamera
- Programovateľný – Choregraph, Python,



NAO

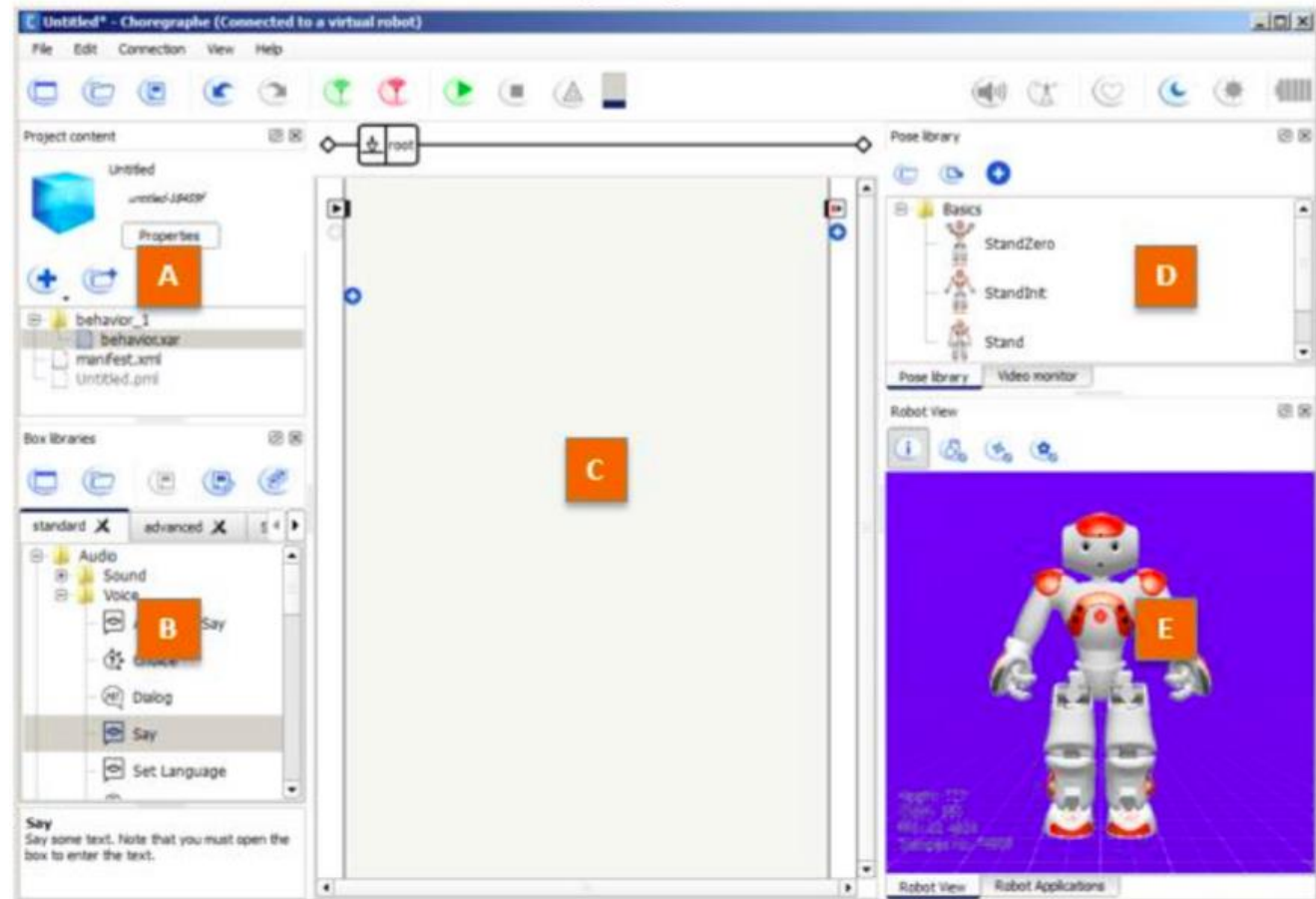


NAO - Apps 2.0 Store

The screenshot displays the NAO Apps 2.0 Store interface. At the top, there is a navigation bar with links for 'Home', 'Store', 'Apps 2.0', 'Community', 'Jobs', 'MyRobot', 'Support', and 'Plus'. A user profile for 'May Dow' is visible in the top right corner. Below the navigation bar is a search bar and a secondary navigation menu with links for 'APPLICATIONS', 'CHANNELS', 'ACCESSORIES', 'FAN SHOP', 'MY APPS', and 'MANAGE'. The main content area is divided into three columns: 'BEST RATED', 'NEW APPS', and 'SELECTED FOR YOU'. Each column contains a grid of application cards. Each card features an icon, a title, a star rating, and a 'Free' label. The 'BEST RATED' column lists five apps: 'Walk To The...', 'Night Bator...', 'Touch My Head', 'Blind Me', and 'Taichi Danc...'. The 'NEW APPS' and 'SELECTED FOR YOU' columns each display a 2x3 grid of app cards, including titles like 'Move Recorder', 'Soccer Demo...', 'Go To Rest', 'Big And Small', 'Follow Me', and 'Taichi Danc...'. The bottom of the page features social media icons and the Aldebaran logo.

NAO - Choreograph

- A - Panel obsah projektu
- B - Panel poľa knižnice
- C - Panel vývojový diagram
- D - Panel súpisu polôh a Video monitor
- E - Prehľadové menu robota a Panel s aplikáciami



NAO

Využitie v edukačnom procese

- Nácvik algoritmizácie
- Programovanie v prostredí **Choreograph**, Python
- Skĺbenie programovania a anglického jazyka
- Možnosť využiť na hodine anglického jazyka, informatiky, matematiky, ...
- Využitie - **Apps 2.0 Store**
- Problémové úlohy s bludiskom
- Krúžok – „Robotika“