robots 4 autism

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An introduction to:
Robots4Autism

from **ROBOKIND**
ADVANCED SOCIAL ROBOTICS

[Click here to play a short video introduction to Robots4Autism.](#)

ADVANTAGES:

1. The robot ("Milo") is an engagement tool to deliver a comprehensive curriculum, teaching social emotional behavioral skills to learners with ASD, using evidence-based practices.

2. Instruction is easily facilitated by support staff, reducing resource costs.

3. Data collection with web portal access monitors individual student progress and saves time for teachers and administrators.

4. Detailed Facilitator Manual outlines target concepts and vocabulary, visual supports, and extension activities, all to facilitate comprehension and provide structured generalization practice.

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CURRICULUM

INTRODUCTORY MODULES

Introductory Lessons and Games

Calm Down Module (emotional

self-regulation strategies)

CONVERSATIONAL MODULES

Initiation Greetings

Leave-Taking

Conversation Dynamics

EMOTIONAL UNDERSTANDING MODULES

Identifying & Imitating Facial Expressions:

- Happy/Sad/Angry
- Hurt/Tired/Excited
- Scared/Surprised/Worried

SITUATIONAL MODULES

Playdates

Playdate Problems

Being a Guest at a Birthday Party

Being a Host at a Birthday Party

Opening Gifts

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CURRICULUM

These evidence-based practices are embedded within the Robots4Autism curriculum (as suggested by the National Professional Development Council):

- Social Narratives

- Visual Supports

- Video Modeling

- Reinforcement of Target Behaviors

- Technology-Aided Instruction

- Natural Modeling

- Prompting (verbal and visuals)

CURRICULUM

A Naturalistic Behavioral Approach:

- Developmental Theory

- Focuses on Functional Social Skills

- Principles of Applied Behavioral Analysis:
  - Manualized Practice
  - High Fidelity of Treatment
  - ABC's of Behavior
    - Antecedent, Behavior and Consequences
  - Ongoing Data collection to measure progress
  - Use of modeling (verbal and visual), time delay and direct questions
  - Systematic use of prompts and prompt fading

CURRICULUM

The Robots4Autism Curriculum is designed for school-aged learners with ASD in order to facilitate:

- Reciprocal interaction

- Shared understanding

- Understanding of facial expressions and emotions

- Pointing

- Conversation

- Perspective taking

- Understanding of social situations

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ROBOT-ASSISTED THERAPY

Why is Milo such an important part of the solution?

- Foundational research shows strong comfort level for children with ASD working with robots

- Significant increases in engagement

- Milo's speech is 20% slower than a human's

- Students develop compassion for an interactive partner and friend

- Milo is non-judgmental and provides consistent repetition of vocabulary

- Increased oral language (language paired with visual supports)

- Technology-aided instruction

- Milo is a crosswalk between technology and social interaction

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THE PROGRAM

The Robots4Autism program includes:

- Humanoid robot for student engagement

- Comprehensive organized social and emotional skills curriculum
    - Authored and designed by a professional team of autism experts from the UT Dallas Callier Center for Communication Disorders
    - 85 lessons in 12 modules including 1,500 videos

- Developed with 8 Evidence Based Practices with an ABA thread

- Automated Data Collection with Web Portal

- Other support materials
    - Facilitator manual contains extension activity materials to facilitate carryover in the classroom learning setting and at home

- Comprehensive support for fidelity of implementation