

## Who Is Appropriate For The Curriculum?

The **robots4autism** curriculum was designed for school-aged children with Autism Spectrum Disorders (ASD) to facilitate reciprocal interaction, shared understanding and emotions.

## What Prerequisite Skills Are Needed?

At a minimum, students using the **robots4autism** curriculum should:

- Use consistent means (i.e., words, pictures, conventional gestures) to request.
- Demonstrate the ability to understand spoken language and/or use picture symbol/ icons (they need NOT be vocal).
- Monitor their instructor's actions.
- Make predictions about what is coming next in an interaction (i.e., engages in routines and turn taking activities).
- Comment on and respond to comments about pictures, objects, and events that are present and in their view (note that commenting is different than labeling, without regard to communication partner).
- Answer questions, particularly yes/no questions.
- Have the fine motor abilities for direct selection on the tablet that permits the student to respond to queries as intended.

Students may continue to struggle with:

- Using language to discuss past or future events where there is no discernible referent in the environment;
- Maintaining topics of conversation.

## How Do We Know If Students Have These Skills?

To confirm that the student has the above prerequisite skills and to establish rapport/familiarity with the robot, the student may complete the Introductory Lessons with the robot.

Completion of the Introductory Lessons and Games will offer the facilitator additional information on the appropriateness of fit for **robots4autism** to the student. Before initiating the Curriculum Modules, the facilitator must be able to answer YES to the following questions (based on the Introductory Lessons):

1. Does the student relate positively to the robot?
2. Does the student understand how to use the tablet to communicate with the robot?
3. Does the student understand how to answer yes/no questions using the tablet?
4. Does the student have adequate picture symbol recognition ability to be able to respond to queries accurately?

# SCOPE AND SEQUENCE

## CURRICULUM MODULES

robots4autism is the first education curriculum to pair evidence-based practices and technology-aided instruction to help learners with autism improve their social skills.

Developed by top autism researchers and practitioners, this curriculum is delivered by a facially-expressive humanoid robot specifically designed to engage and teach students with autism how to understand emotions and expressions and to learn and practice social behavior and responses.

### Introductory Module

*\*The games within this module determine the student's prerequisite skills for the curriculum.*

Introduction To Milo  
Milo Game 1: Find It  
Milo Game 2a: Follow The Leader (Milo leads first)  
Milo Game 2b: Follow The Leader (Student leads first)  
Milo Game 3: What Did I Do?  
Milo Game 4: Red Light-Green Light

### Calm Down Module

Lesson 1: Introduce Concept Of Calm Down  
And Calm Down Strategies  
Lesson 2: Help My Friend Calm Down  
Lesson 3: What Is Your Calm Down Tool?  
Calm Down Tool 1: Count To 10  
Calm Down Tool 2: Take A Breath  
Calm Down Tool 3: Take A Break  
Calm Down Tool 4: Say Words  
Calm Down Tool 5: Squeeze A Stress Ball

### Conversational Modules

#### Conversational Module 1: Initiation Greetings

Lesson 1: Introduction to Greetings  
Lesson 2: Student Practice Lesson – Greetings With Milo  
Lesson 3: When To Greet – When We Have  
Been Away From Them  
Lesson 4: Different Greeting Words  
(Includes “Hi, Hey, Hello”)  
Lesson 5: When To Greet – When To Say “Hi”  
And When Not To Say “Hi”  
Lesson 6: Idiomatic And Colloquial Greetings (What’s  
Up, How’s It Going, How Are You?)

#### Conversational Module 2: Leave-Taking

Lesson 1: Introduction to Leave-Taking  
Lesson 2: When To Use Leave-Taking Skills  
Lesson 3: Student Practice Lesson – Initiating  
Leave-Taking With Milo  
Lesson 4: Different Leave-Taking Words (Includes  
Bye, Goodbye, See You Later)  
Lesson 5: Responding To Other People’s Leave-Taking  
Lesson 6: Student Practice Lesson – Responding  
To Leave-Taking With Milo

#### Conversational Module 3: Conversation Dynamics

Lesson 1: Conversation & Conversational  
Turn-Taking (“One-Sided Conversation”)  
Lesson 2: Conversational Turn-Taking (“Two-Sided  
Conversations: Question-Answer”)  
Lesson 3: Nonverbal Components To Conversation  
(“TLC : Turn, Look, & Check Your Space”)  
Lesson 4: One-Sided Conversations With TLC  
Lesson 5: Using TLC In More Difficult Conversation –  
QAC (“Question + Answer + Comment”)  
Lesson 6: Topic And Topic Maintenance

## Emotional Understanding Modules

### Emotional Understanding Module 1: Identifying & Imitating Facial Expressions (Happy/Sad/Angry)

\* The letters next to some lesson names are variations of that lesson with the following:

- a - in photos of Milo
- b - in photos of people
- c - in videos of people
- d - student demonstrates

- Lesson 1: Introduction
- Lesson 2 (a, b, c, d): Identifying & Imitating The Facial Expression For “Happy”
- Lesson 3 (a, b, c, d): Identifying & Imitating The Facial Expression For “Sad”
- Lesson 4 (a, b, c, d): Discriminating Between 2 Emotions (Happy/Sad)
- Lesson 5 (a, b, c, d): Identifying & Imitating The Facial Expression For “Angry”
- Lesson 6 (a,b): Discriminating 3 Emotions In Still Photos (Happy/Sad/Angry)
- Lesson 7: Discriminating Emotion In Videos Of Happy/Sad/Angry
- Lesson 8: Demonstrating Target Emotion (Happy/Sad/Angry)

### Emotional Understanding Module 2: Identifying & Imitating Facial Expressions (Hurt/Tired/Excited)

- Lesson 1: Introduction
- Lesson 2 (a, b, c, d): Identifying & Imitating The Facial Expression For “Hurt”
- Lesson 3 (a, b, c, d): Identifying & Imitating The Facial Expression For “Tired”
- Lesson 4 (a, b, c, d): Discriminating Between 2 Emotions (Hurt/Tired)
- Lesson 5 (a, b, c, d): Identifying & Imitating The Facial Expression For “Excited”
- Lesson 6 (a, b): Discriminating 3 Emotions In Still Photos (Hurt/Tired/Excited)
- Lesson 7: Discriminating Emotion In Videos Of Hurt/Tired/Excited
- Lesson 8: Demonstrating Target Emotion (Hurt/Tired/Excited)

### Emotional Understanding Module 3: Identifying & Imitating Facial Expressions (Scared/Surprised/Worried)

- Lesson 1: Introduction
- Lesson 2 (a, b, c, d): Identifying & Imitating The Facial Expression For “Scared”
- Lesson 3 (a, b, c, d): Identifying & Imitating The Facial Expression For “Surprised”
- Lesson 4 (a, b, c, d): Discriminating Between 2 Emotions (Scared/Surprised)
- Lesson 5 (a, b, c, d): Identifying & Imitating The Facial Expression For “Worried”
- Lesson 6 (a, b): Discriminating 3 Emotions In Still Photos (Scared/Surprised/Worried)
- Lesson 7: Discriminating Emotion In Videos Of Scared/Surprised/Worried
- Lesson 8: Demonstrating Target Emotion (Scared /Surprised/Worried)

## Situational Modules

---

### Situational Module 1: Playdates

- Lesson 1: Introduction To Playdates
- Lesson 2a: What Is A Playdate?
- Lesson 2b: Starting A Playdate – Greeting
- Lesson 3: Starting A Playdate – Choosing An Activity (Host Has First Choice)
- Lesson 4: Playing Together, Sharing Toys
- Lesson 5: When The Guest Makes The First Choice
- Lesson 6: Leave-Taking As a Host
- Lesson 7: Leave-Taking As a Guest
- Lesson 8: Student Practice Lesson – Leave-Taking (Milo is the Guest, Student is the Host)
- Lesson 9: Student Practice Lesson – Leave-Taking (Milo is the Host, Student is the Guest)

### Situational Module 2: Playdate Problems

- Lesson 1: Being A Good Friend On A Playdate
- Lesson 2: Problem Solving During A Playdate
- Lesson 3: Bored Is A Playdate Problem. What Is Bored?
- Lesson 4: When I Am Bored During A Playdate
- Lesson 5: When My Friend Is Bored During A Playdate
- Lesson 6: When I Am Not Ready For A Playdate To Be Finished
- Lesson 7: When I Am Ready For A Playdate To Be Finished At A Friend's House
- Lesson 8: When I Am Ready For A Playdate To Be Finished At My House

### Situational Module 3: Being A Guest At A Birthday Party

- Lesson 1: Introduction To Birthday Party
- Lesson 2: Invitations
- Lesson 3: Birthday Party Schedule – Being A Guest
- Lesson 4: The Party Place And Playing At A Birthday Party
- Lesson 5: Giving The Host A Present
- Lesson 6a: Eating At A Birthday Party (Social Story)
- Lesson 6b: Birthday Song
- Lesson 7: Leaving A Birthday Party

### Situational Module 4: Being A Host At A Birthday Party

- Lesson 1: Introduction To Birthday Party
- Lesson 2: Invitations
- Lesson 3: Birthday Party Schedule – Being A Host
- Lesson 4: The Party Place And Playing At A Birthday Party
- Lesson 5: Receiving Presents From Guests
- Lesson 6a: Eating At A Birthday Party (Social Story)
- Lesson 6b: Birthday Song
- Lesson 7: When Guests Leave

### Situational Module 5: Opening Gifts

- Lesson 1: Introduction (When Do We Get Gifts?)
- Lesson 2: Receiving a Gift
- Lesson 3: Opening Gifts
- Lesson 4: Student Practice Lesson - Opening Gifts

### Preview: Group Activities (in development)

---

- Physical Group Activity: Dance Party
- Cognitive Group Activity: What Did I Do?
- Cognitive Group Activity: Topic Recognition

**To learn more about robots4autism, please visit [www.robots4autism.com](http://www.robots4autism.com) or call 800.494.1206.**