



Robotics Starter Microdegree

Ages 8+

Benefits of this program



24 one-hour live online sessions with expert trainers in 3/6 months



**In the entire Microdegree
21 class projects +
21 additional challenges
to master your skills**



**Demo Days to present
personal projects and get
expert feedback**



**Detailed reports of
creative and
conceptual learning**



**Global Community -
Innovate with others and
connect with experts**



**Free expert
counselling to help with
child's progress**

Avishkaar's educational experience proudly bears
the **STEM.org** trustmark



Learn using



AMS

Avishkaar Maker Studio
Block Programming Software

Award Winning
Robotics Pro Kit (ER-Series)



Demo Day

Demo Day

Demo Day

Milestone 1

Milestone 2

Milestone 3



Beginner Autonomous Course

This course is bit of everything. Get introduced with basics of Mechanical, coding and Autonomous Robotics



Mechanical Robotics Course

This milestone focuses on mechanical concepts and designing manual robots.



Beginner Robotics Coding Course

With this Milestone Learn about Basic Autonomous robotics using sensors and coding

Each Milestone will have

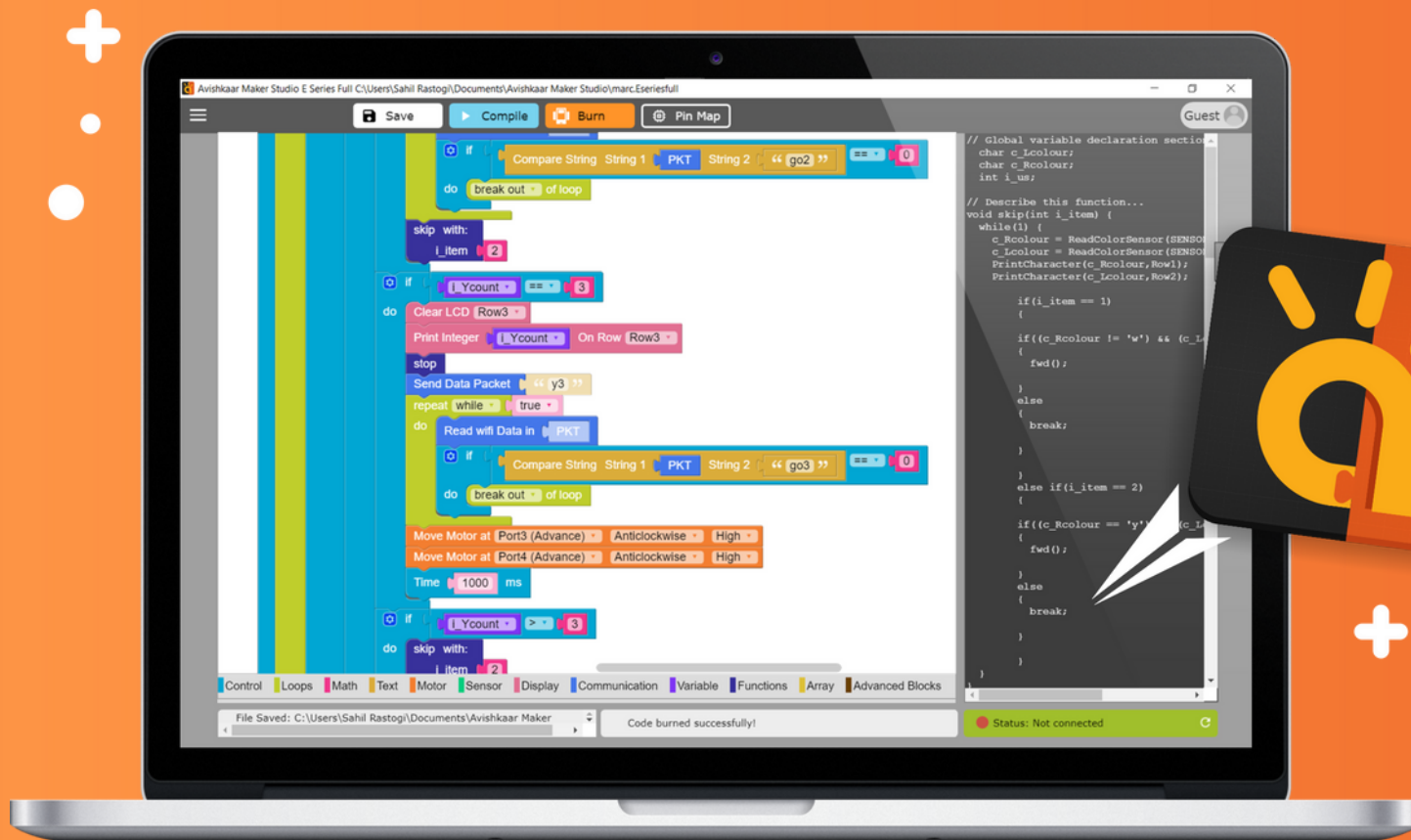
8 Sessions

14 Challenges

Regular Global Competitions

Prepare for Asia's Biggest International
Coding and Robotic Challenge with
prizes worth upto Rs. 5L





Milestone 1: Beginner Autonomous Course

Sessions

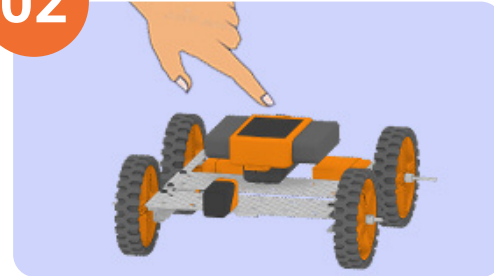
01



Hello World

- Basics of programming
- LED/OLED programming

02



Touch Based Motion

- Sensor Understanding
- Touch Sensor Application

03



Hand Follower

- Behavioural understanding of sensor based robot
- IR Sensor Application

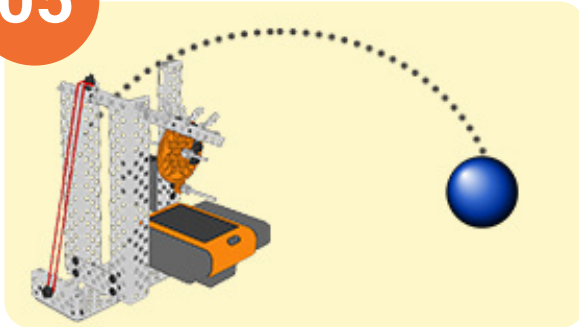
04



Artist Robot

- Pen Attachment
- Motor Movements

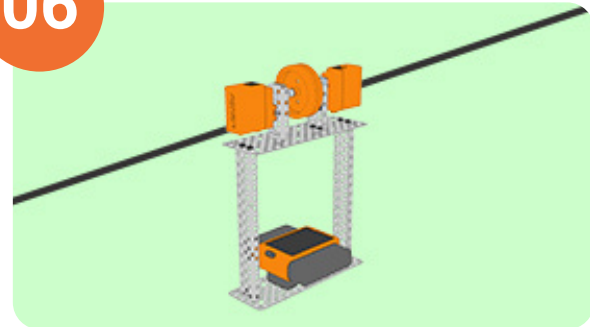
05



Catapult Robot

- Gear System
- Energy conservation using Elastic energy

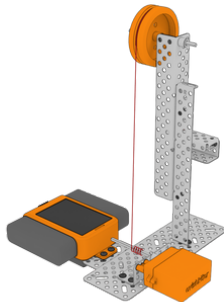
06



Rope Car

- Pulley Mechanism
- Balancing with center of mass

07



Construction Site Lift

- Gear Combination
- Pulley system and application

Demo Day



- Demonstration Skills
- Design Thinking Process

Milestone 1: Certificate

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Robotics Programmer

This certificate has been awarded to

for completion of "Milestone 1 : Beginner Autonomous
Course" on
of - Robotics Starter Microdegree.

Tamir Shetty ..

Founder & CEO, Avishkaar

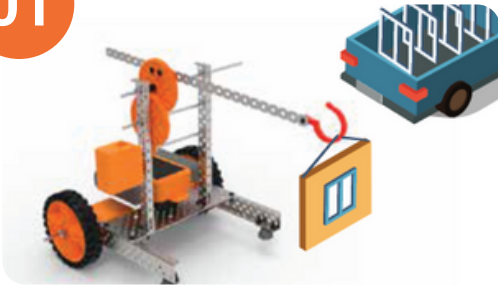




Milestone 2: Mechanical Robotics Course

Sessions

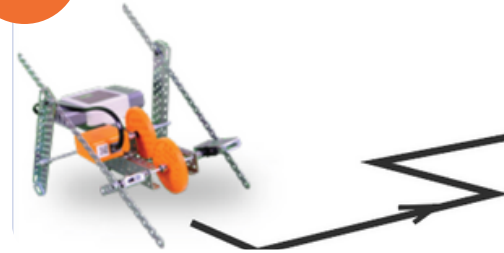
01



Pulley Crane

- Pulley Mechanism with Gears
- Simple Machine construction

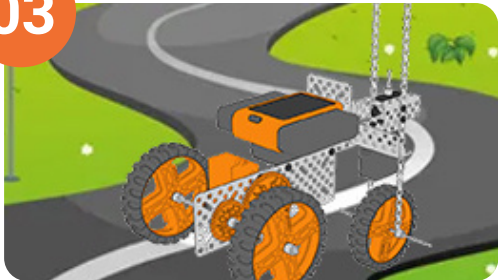
02



Walker Robot

- Momentum and Friction
- Law of Inertia

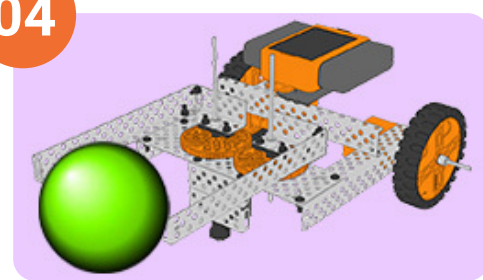
03



Robo Trike

- Steering Mechanism
- Center of Gravity

04



Robotic Gripper

- Gripping Mechanism
- Rotational Motion

05



Construction Site Lift

Controlled action with Rotational action
Portable Complex Machine

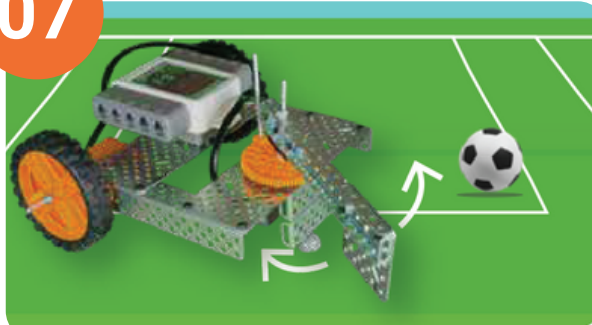
06



Turtle Robot

- Bio-mimicry based robot
- Gears as wheels
- Hopping Mechanism

07



Soccer Bot with two arms

- Generating High torque
- Dual Motor Coordination

Demo Day



- Demonstration Skills
- Design Thinking Process

Milestone 2: Certificate

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0001
0100

Beginner Mechanical Engineer

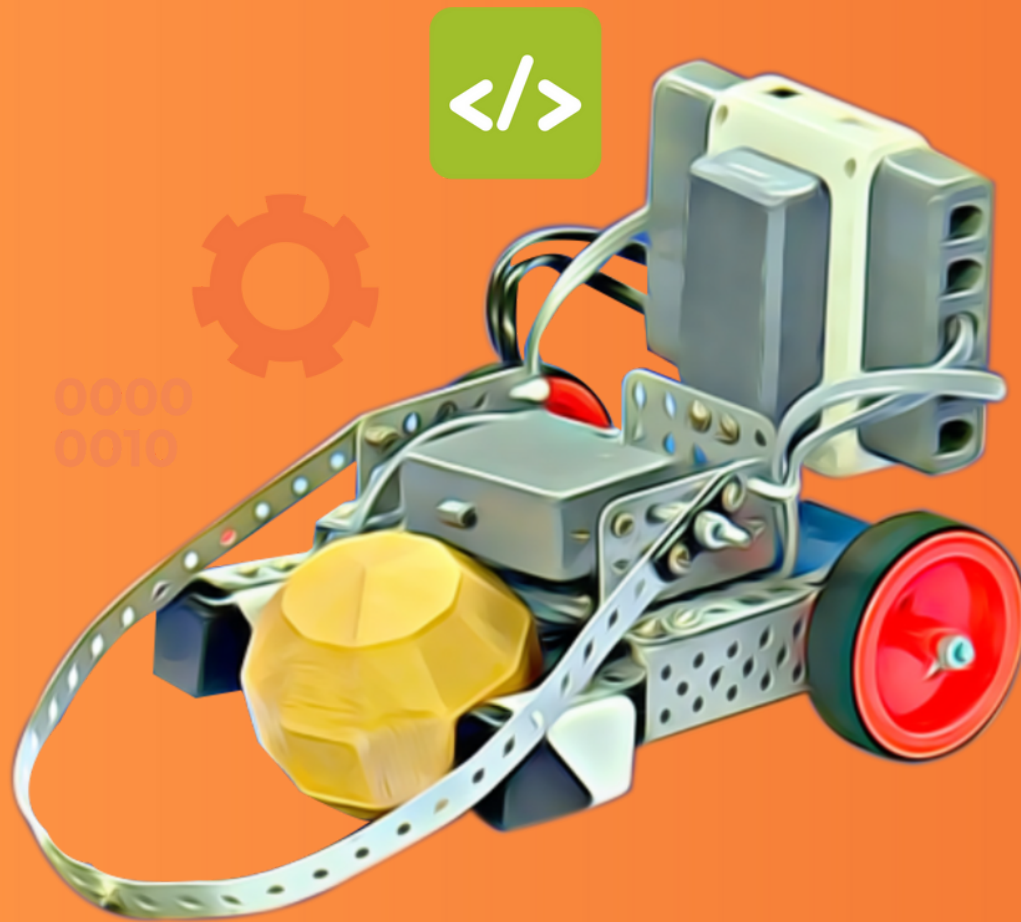
This certificate has been awarded to

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Course " on of
- Robotics Starter Microdegree.

Tarun Arora ..

Founder & CEO, Avishkaar

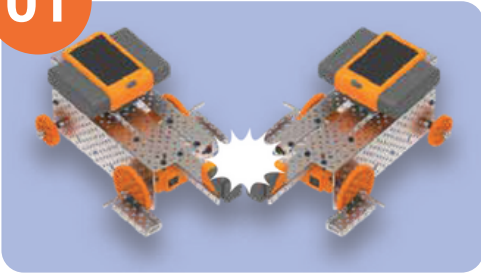




Milestone 3: Beginner Robotics Coding Course

Sessions

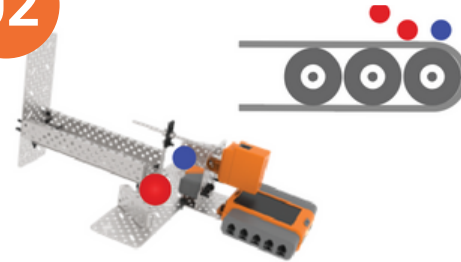
01



Bumper Car

- Mathematical Operations
- Conditional Statements with Touch Sensor

02



Color Separator

- Color Sensor and Range
- Sorting mechanism

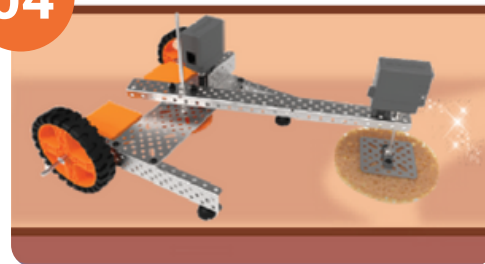
03



Automated WindMill

- Application of IR sensor
- Loops and Variables

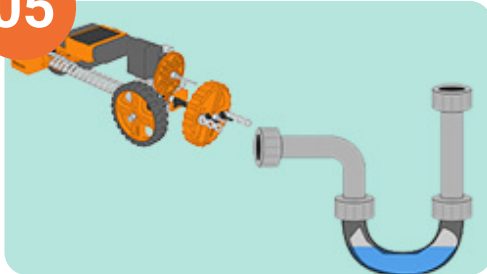
04



Floor Cleaner

- Real time application bot
- Design Thinking Process

05



Pipe Cleaner bot

- 2 - Wheel Balancing Robot
- Cleaning Mechanism with high torque

06



Equation Solver

- Mathematical operations and Equations
- Conditions based movement

07



Automated Door Opener

- Sensor Interfacing
- System Designing

Demo Day



- Demonstration Skills
- Design Thinking Process

Milestone 3 : Certificate

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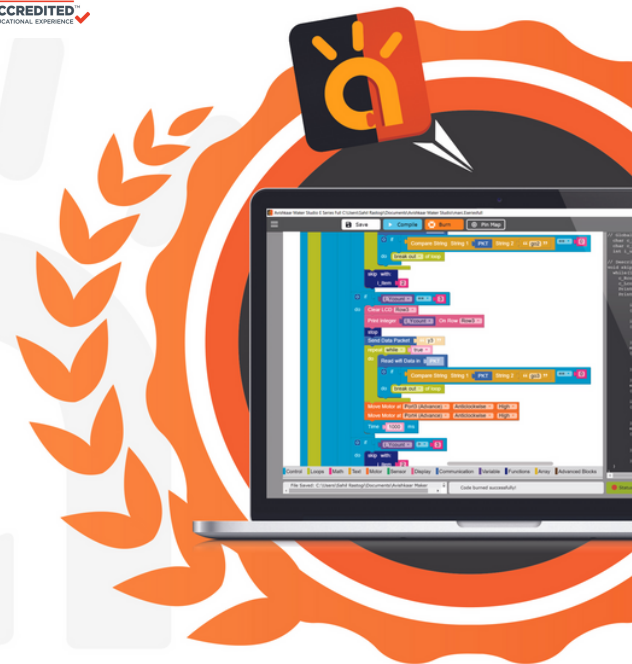
Beginner Robotist

This certificate has been awarded to

for completion of "Milestone 3 : Beginner Robotics
Coding Course" on of
- Robotics Starter Microdegree.

Tarun Gohilly ..

Founder & CEO, Avishkaar



Stay on top of the child's progress



Parents get detailed reports including:



Projects made by students



Feedback from trainers



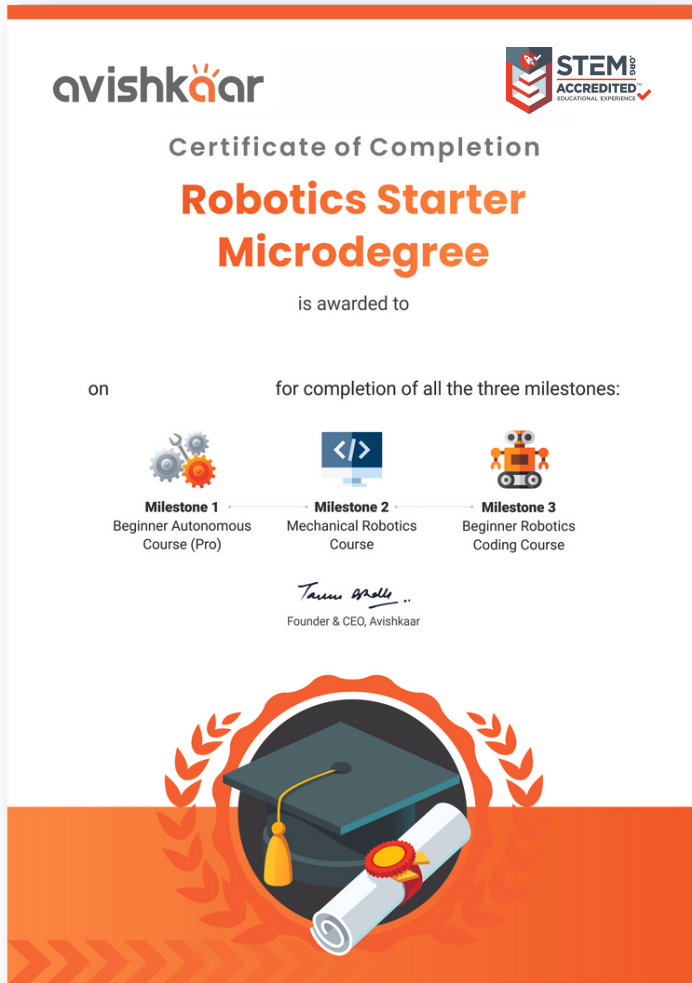
Badges earned



Progress on skills



Microdegree Certificate



**Curriculum designed
by alumni and
veterans from
prestigious universities
and companies**



Ace Design + Communication Skills



Let's Avishkaar

Your kids get access to our global community Let's Avishkaar with thousands of innovators from across the globe



Monthly expert
webinars



Free workshops
and step-wise content
for project



Exciting content
on next-gen tech



Regular competitions
win prizes upto Rs10,000/-



Avishkaar League

Prepare to participate in
Asia's Biggest Innovation
& Robotics Competition





 United States



 Dubai



 Russia



 China



 Maldives



 Singapore

Win prizes upto
Rs. 5 lacs
including sponsored
international competitions

Learn from the masters



Pragya

Robotics Trainer

6000+ hours

Pragya is passionate Robotics & Coding Instructor with 20+ years of experience.



Shweta

Curriculum Lead

6000+ hours

Shweta is a driven Robotics & Coding trainer with over 15+ years of experience.



Gautam

Robotics Trainer

6000+ hours

Gautam is one of our most beloved Robotics, Coding & App Dev trainers.



Amarpreet

Curriculum Lead

6000+ hours

Amarpreet is a young coding & electronics trainer full of passion and zeal.

Hear from our happy customers



Kiyansh, 10

"I made a humanoid robot to help take care of COVID patients in isolation"



Aarav, 7

"I have made a Smart Dustbin that works on my command. This will help in contactless disposal of the waste"

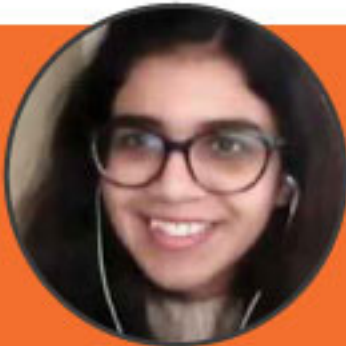


Adhiraj, 10

"I made an automatic screwdriver to help me and my dad with our robotic projects"

Still not convinced ?

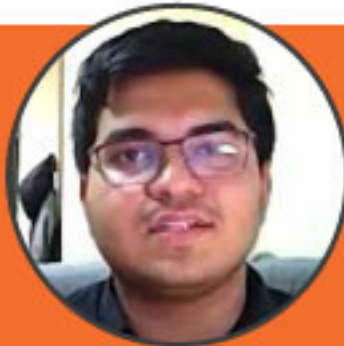
Trust the 200,000+ young innovators & the
'Stars of Avishkaar'
who're already flying high across the globe..



Sachi Sinha

3rd Year,
Electronics and Computer Engineering,
National University of Ireland, Galway

[Watch Video](#)



Mihir Vardhan

1st Year, Electrical Engineering,
University of Illinois,
Urbana-Champaign

[Watch Video](#)



Rishabh Garg

Student, Georgia Tech
IRC League Winner

[Watch Video](#)

Hear from 50,000+ students who are learning coding and robotics with us!



Use the link or scan
the QR code to
watch this video!



https://www.youtube.com/watch?v=mCfF8sBJ_l4

Watch Now!

FAQs

Is this suitable for kids who have never done any coding before?

Yes. This is the perfect course for kids aged 8+ who have never done any coding before. If your kids love tech and want to make their own awesome software and video games, then they should join this course today!

Do I need to pay separately for the software and kit used in the course?

The cost of the software and kit are already included in the MRP. If you are an existing Avishkaar customer who already have our kits and just want the training, then click on the 'I already have the kit' option to see the training only cost.

What is the format of the course?

It is a live online course with 1:3 batch strength, where each week the students make one new project with a trainer on video call, and get one project as homework.

Would I receive some guidance for the demo day projects?

Avishkaar's "Demo Day" is when your child learns to apply knowledge to action.

- It is probably the most significant part of the course as the child develops skills like self-learning, confidence, crisp and precise articulation, engaging with people, and problem-solving skills while working on creating an all-new project.
- While the child is preparing to present the demo day project, they can request guidance from the mentor. The mentor would answer the child's questions and direct the child in the right direction. However, making and presenting the project is entirely the child's responsibility.

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BUILD. SHARE. WIN