

# Year Long STEM Weekend Program

For age 5 - 18





## STEMx Indiranagar

## STEMx Whitefield





## LEGO ROBOTICS FOR 5 - 18 AGE

- Build Code & Rebuild as its hands on session
- Learn & work with sensors & motors to construct the Robot model
- Use complete design process to solve real world problems
- Participate in Robotics competition as WRO & FLL
- Learn Math & Science concepts practically, ex: force, speed, time, distar
- Team work & Critical thinking



## **ELECTRONICS**

#### **FOR 5 - 18 AGE**

- Fundamentals of electrical and electronic components such as Resistor, Wires, LED and basic Sensors.
- Build circuit and code it
- Make projects as smart home, traffic lights, tech farming
- Understand fundamental programming concepts like variables, conditional logic, looping, and functions.
- Work with user input to create fun and interactive digital output.
- Logical thinking



## **3D PRINTING**

#### **FOR 5 - 18 AGE**

- Complete the entire 3D printing process from design to prototype
- Translate visual inspiration into successful 3D models.
- Design projects as phone case, tv remote cases, gold ornament's
- Get familiar with concepts as scaling, ratio, length, width, height
- Work with a real physical 3D Printer at Lab
- Fun with other kids and share there experience's on 3D Printing



#### **CODING**

#### **FOR 5 - 18 AGE**

- Build a drone from scratch
- Code the drone to move up, move down, go right & left
- Work on real time project to deliver food and medicines
- Understand physics & principles of object flying in air
- Sensors used in drones and practical applications of drones
- Compete with other teams to solve a mission
- Joy all over kids experience





#### APP DEVELOPMENT

#### **FOR 8 - 18 AGE**

- Students will learn to access and update databases through apps.
- Students learn how to design native utility apps for mobile.
- Students will learn to build knowledge chatbot, sensors which can answer all your questions.
- Safety app for women, ambulance path, farmer's friend, your child is safe are few apps created by STEMx students.



#### HTML - CSS CODING

#### **FOR 10 - 18 AGE**

- Be able to use the HTML programming language, Resolves written HTML codes, Runs the page he/she has designed using HTML codes.
- Be able to make changes on the Site.
- Uses Domain Name and services.
- In this course student will be able to Edit tags, Design static web content work with images, text, and inline style.
- Build beautiful websites with html css code



#### JAVA SCRIPT CODING

#### **FOR 10 - 18 AGE**

- To get into Javascript kids should learn HTML / CSS. "Basically: HTML + CSS + JS = Website"
- Students will start by completing coding challenges to strengthen your understanding of new concepts.
- Next, you'll explore game programming with Processing, learning about 2D movement and collisions, then you'll code apps with user input and feedback at their core.
- As you progress, children realize they don't need to wait until after middle school / high school to get a college education.



## PYTHON CODING FOR 10 - 18 AGE

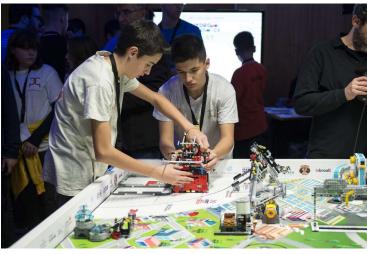
- Build basic programs using fundamental programming constructs like variables, conditional logic, looping, and functions.
- Work with user input to create fun and interactive animated output.
- Python is used as a coding language to build everything from exciting arcade-style games to advanced machine learning algorithms and models.
- This language has a clear syntax that makes it quicker to write and debug, so whether you're starting out, or learning advanced algorithms, you can progress quickly.





## INTERNATIONAL LEGO ROBOTICS COMPETITION: Grade 1 - 12





## **FLL Junior**

## **FLL Senior**

- FIRST LEGO League Discover closes with an in-school celebration event, where students work with other teams to solve a final collaborative challenge, demonstrating for friends and family the skills and concepts they've learned.
- Bring this creative spirit to robotics clubs, coding programs, and maker spaces . FIRST LEGO League Jr. is a non-competitive robotics program designed for children ages six to ten. It is one of the programs established by FIRST. FIRST LEGO League Jr. follows the same theme given to FIRST LEGO League

FIRST.
LEGO
LEAGUE
DISCOVER

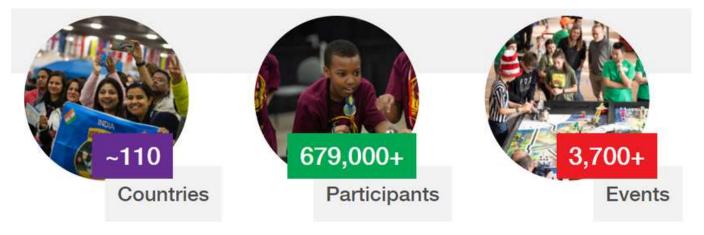
AGES
4-6

FIRST.
LEGO
LEAGUE
EXPLORE

AGES
6-10

FIRST.
LEGO
LEAGUE
CHALLENGE

AGES
9-16\*
'ages vary by country'





#### **About STEMx India**

STEMx India is one of the first to introduce cutting edge technology in education and training since 2020. Two years back we introduced LEGO Education's hands-on Robotics, Coding and early concepts of STEM.

Our **offline STEMx Studio's** in Bangalore, India are spread across to Whitefield and Indiranagar

Today our **online STEM program** has no limit to regions, as we have students from India, Dubai, USA, Singapore, England, Nepal, Canada and Japan.

Our list of **Schools** in Bangalore for STEM Program:

- Valistus International School
- Whitefield global school
- Basil wood international school group of schools
- The cambridge international school Harlur
- The cambridge international school Whitefield
- Brooklyn National Public School group of schools
- Excellent English School
- Colors Learning center for Autism
- JSS Government school Malur, Kolar (ATL Lab)

For more than 7+ Years Founder of STEMx have been working with parents, teachers, schools and governments to deliver playful learning experiences that bring STEM subjects like Robotics, Coding, 3D Printing, Electronics & Drones to life for the students and make learning fun and impactful.

#### STEMx - Social Media

Website: <a href="https://stemxindia.com/">https://stemxindia.com/</a>

LinkedIn: <a href="https://www.linkedin.com/company/72151231/admin/">https://www.linkedin.com/company/72151231/admin/</a>

Facebook: <a href="https://www.facebook.com/STEMx-102767185262199/">https://www.facebook.com/STEMx-102767185262199/</a>

Instagram: <a href="https://www.instagram.com/stemx">https://www.instagram.com/stemx</a> india/

YouTube: <a href="https://www.youtube.com/channel/UCPJNppiDxs3QrRly2PGR62g/videos">https://www.youtube.com/channel/UCPJNppiDxs3QrRly2PGR62g/videos</a>

