



Prepare Students for An AI Future

Storming Robots®

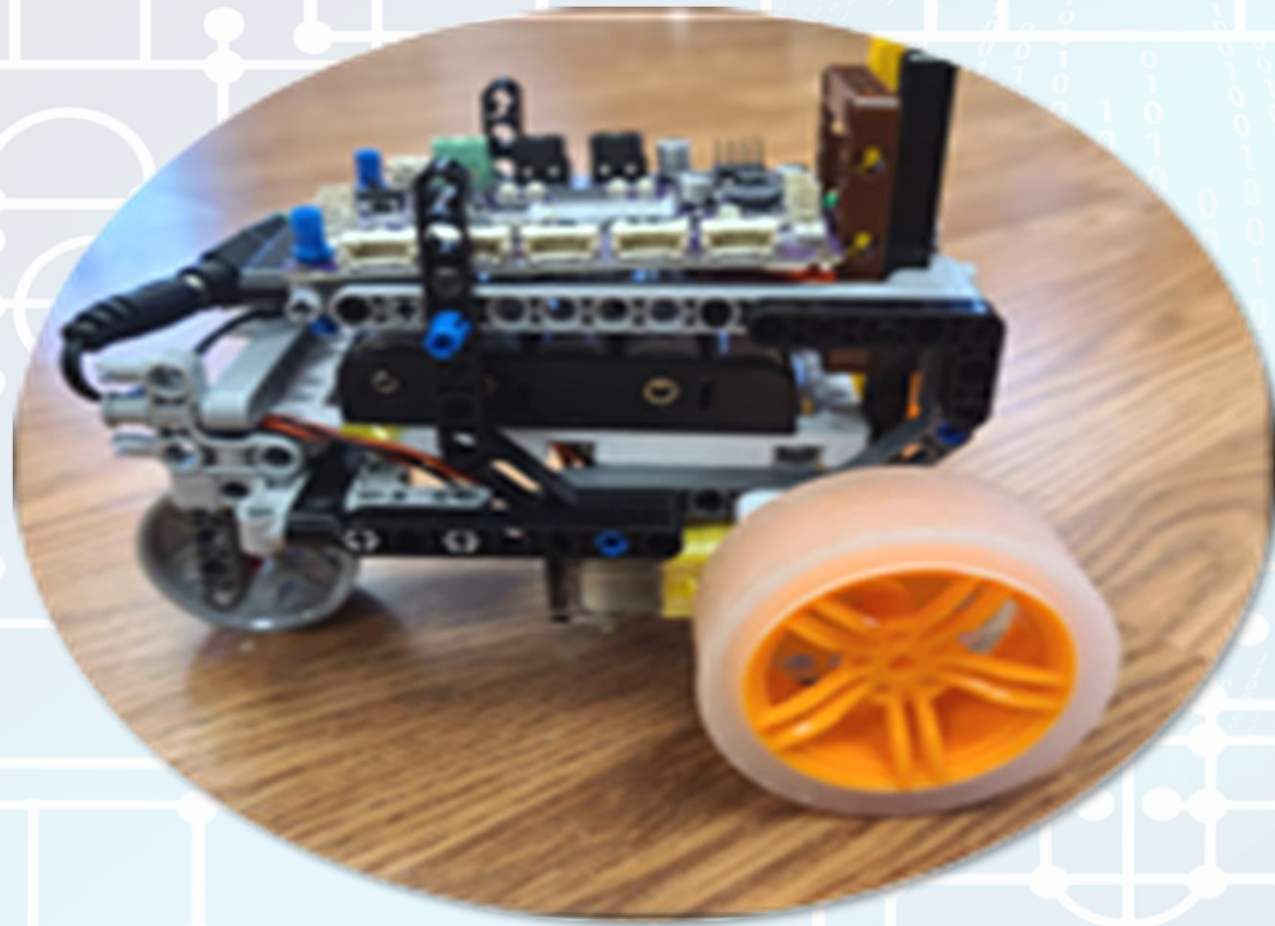
New Exciting Platform for Gr. 5 to 8

The background features a complex graphic with interlocking gears of various sizes and colors (grey, blue, orange). A circular path with arrows and gear icons is visible. The text 'Prepare Students for An AI Future' is written along the top arc of this path. The overall theme is technology and education.

UPGRADE TO MUCH BETTER PLATFORM

Prepare Students for An AI Future

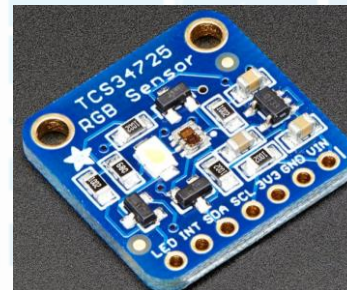
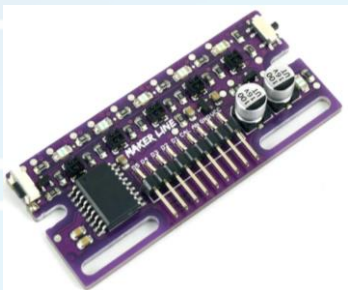
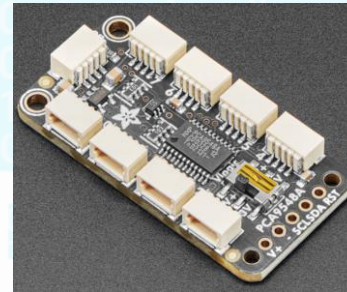
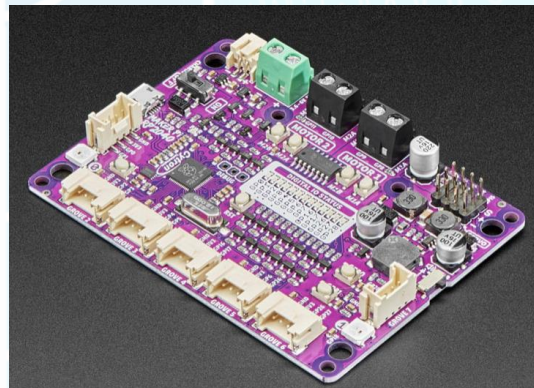
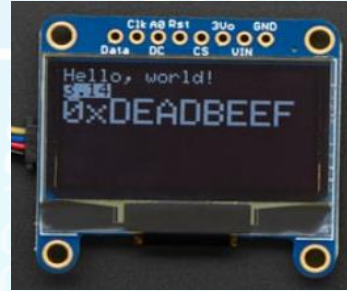
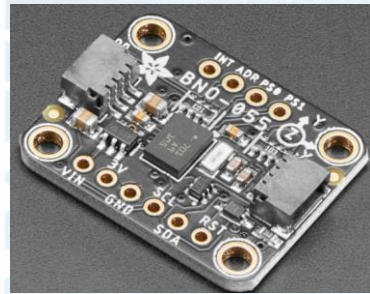
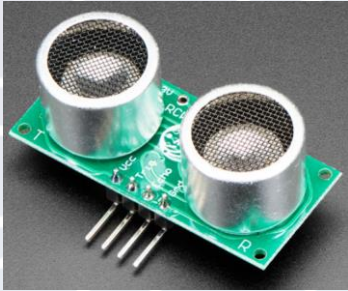
Hardware Platform



Instead of \$350
LEGO bot,

~ \$150 - \$200
with MUCH
HIGHER
expandability

Hardware Platform



- Maker Pi RP2040 - Motor and Robot Controller
- UltraSonic
- OLED
- RGB Color
- I2C MUX
- LIGHT ARRAY
- Other accessories including user-friendly STEMMA wires

Programming Environment

Level B, I

C/C++

Use an internal simplified version of SR libraries to program

Level II+

C/C++

Start to use the native Arduino libraries.

Programming Environment

Level B, I

Learn how to break down the complexity into simpler steps

Follow Computational Thinking fundamentals.

Level II+

Ready for more sophisticated robotics projects, lower level system work with higher performance and expandability

STORMING ROBOTS® ECOSYSTEM





SR's EcoSYSTEM

ROBOTICS PROJECTS GR.5-8

- ✓ **PROGRAMMING** with Robotics
- ✓ Use **MATH** as learning Tool
- ✓ **OPEN-ENDED, APPLICATION-BASED** learning with Engineering Process

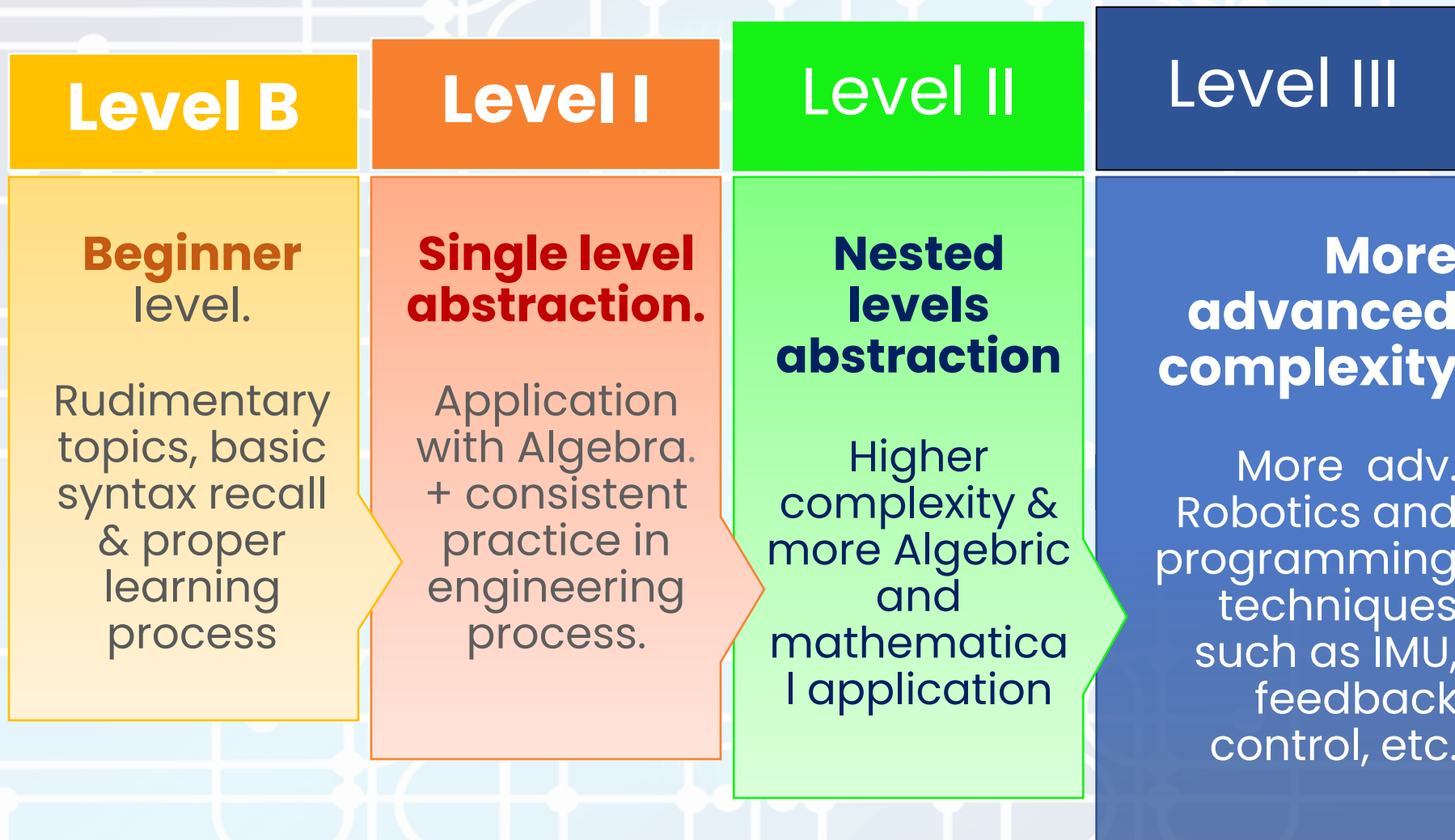
Robotics Projects Track – Gr. 5 to 8

ROBOTICS PROJECTS

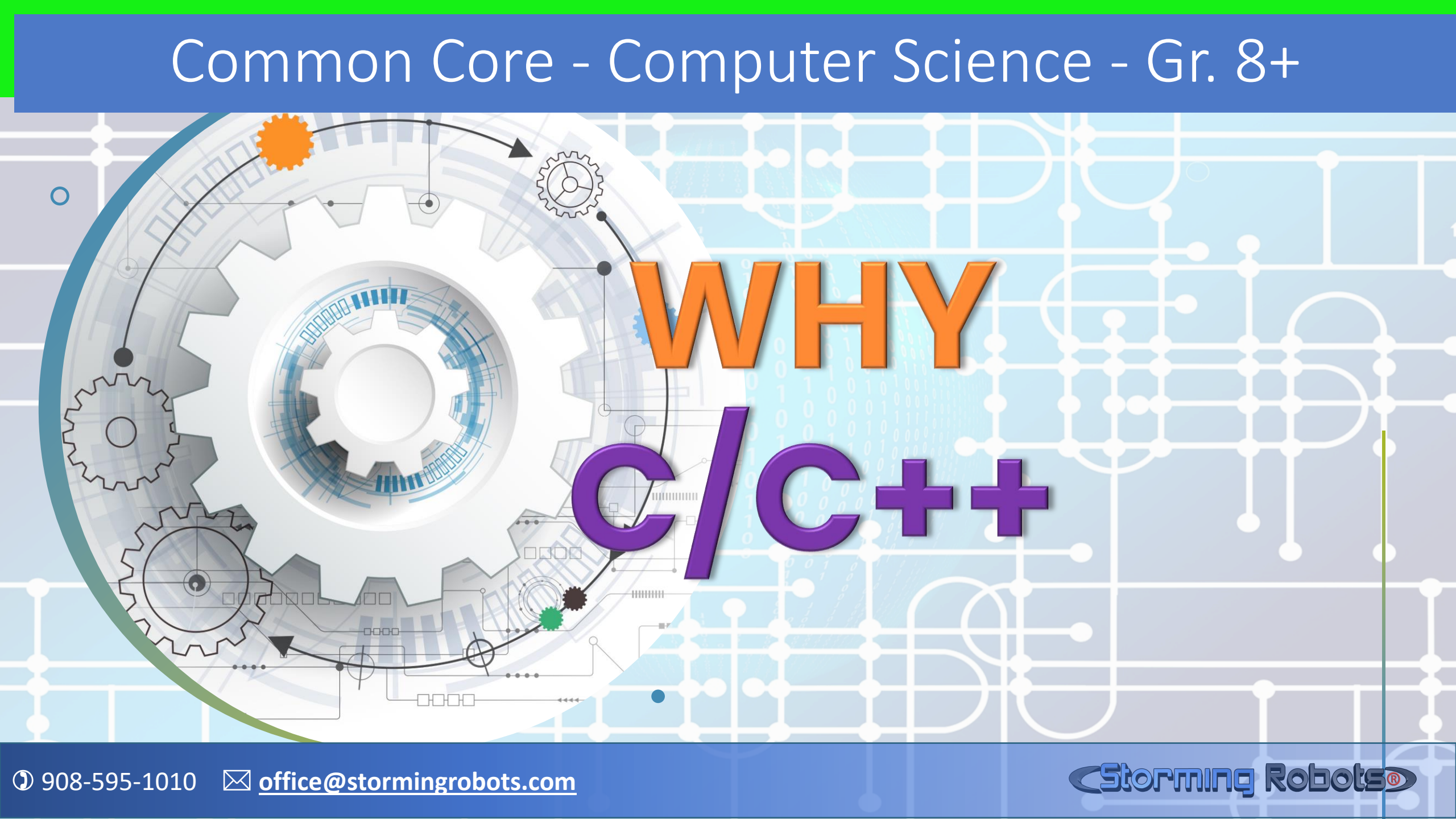
TRACK – GR.5 TO 8

Divided into two groups
Gr. 5 to 6 and Gr. 7 to 8

Robotics Projects Track – Gr. 5 to 8



Common Core - Computer Science - Gr. 8+



WHY
C/C++

WHY NOT PYTHON

TOO MUCH abstraction

Defeat the goal to build strength
to adapt new technologies

WHY C/C++?

Allows high flexibility and the power to perform closer to the machine.

Common language used embedded systems or high-performance computing.

May master other languages far more easily.

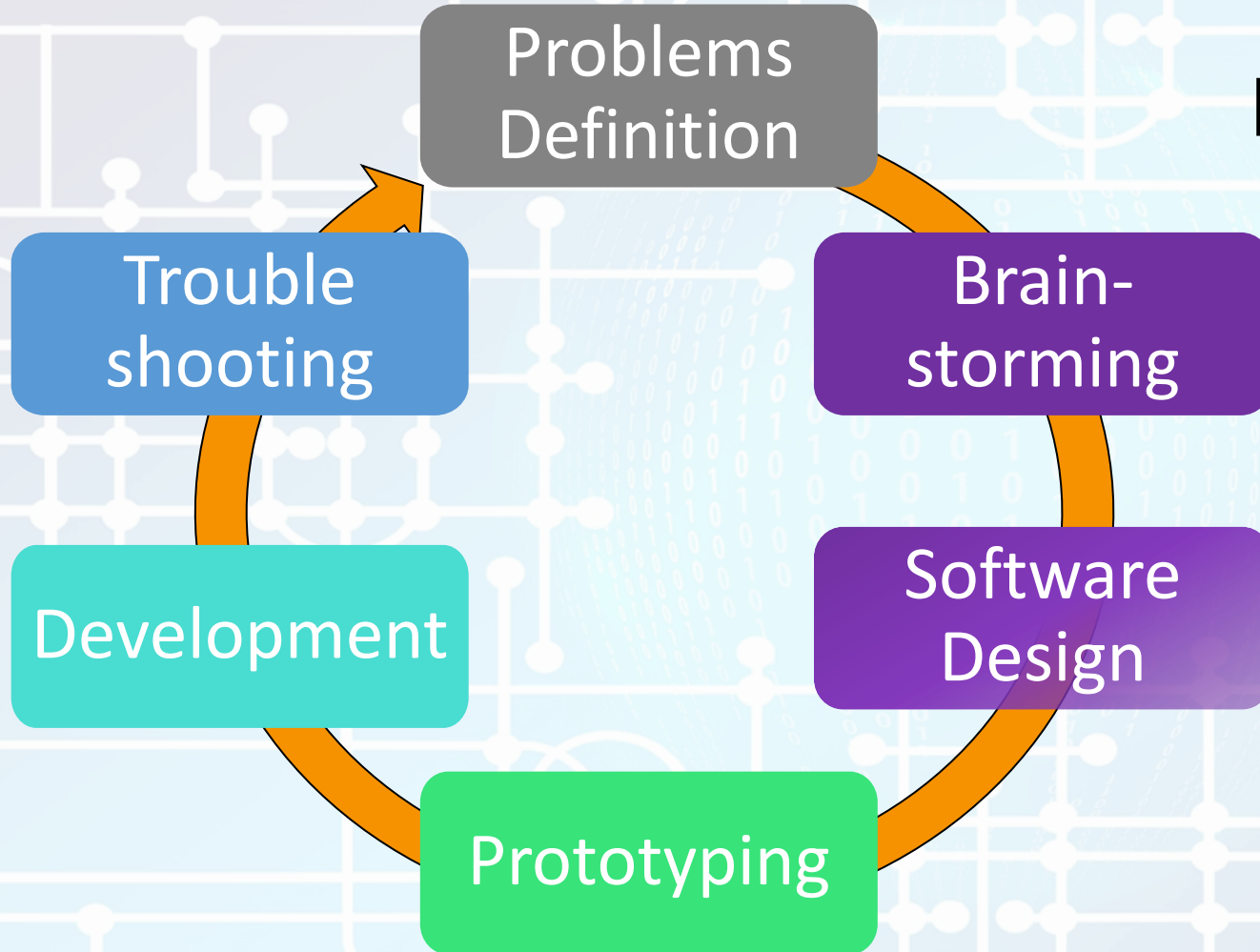
How they advance?

GR. 5 TO 8 ROBOTICS PROJECTS

- ✓ Based on each individual's pace
- ✓ Weekly 1-2 hours practices at home.
- ✓ Special Robotics Challenges for each major topic.

** Ongoing Projects Progress Sheet

How they advance?



Follow Engineering Process

Engage in Active learning

Appreciate and love challenges & Persevere

Things to consider...

Is the Knowledge transferrable to the official latest LEGO platform?

- 1) Absolutely!
- 2) LEGO robotic SPIKE platform supports Python. Knowledge in C/C++ can help students easy transitioning to another platform.
- 3) MORE importantly – Proper Engineering Process, and systematic development process, trouble shooting, efficiency, not just constant trials and errors.