

Open Software Pilot

What is the Pilot?

- Allows teams to **program** their robots with something other than the LEGO® MINDSTORMS **software**.
- Special robot game rules apply in our region.
- Teams who participate will collaborate globally on a platform to be announced by FIRST®.
- Teams who participate will collaborate locally on Slack - we have a special channel ready to go for the pilot!

Rule Exceptions

- R01 - ALL EQUIPMENT
 - Memory cards may be inserted in the Controller's card slot.
- R05 - OTHER ELECTRIC/ELECTRONIC THINGS
 - Memory cards may be inserted into the Controller's card slot.
- R07 - SOFTWARE
 - ONLY for regions participating in the pilot for the INTO ORBITSM Robot Game, the rule R07 - SOFTWARE no longer applies.

How To Participate

- When qualifier registration opens, you will indicate your participation status. (No need to know all the details, just yes or no.)
- **May** choose to complete the Robot Design Summary Worksheet as a tool for judging. (Not required.)
- Any team (participating in the pilot or not) may use the worksheet as an optional tool.

What are my options?

- Full LEGO® Support
 - MINDSTORMS
- Limited LEGO® Support
 - MakeCode EV3
- No LEGO Support
 - Anything else

Things to Remember

- In order to use something to program your robot, you must be able to **select** and **run** programs without any tethering or wireless communication on the competition floor. Some options you find or that I mention **may not meet these requirements**, so “try before you buy.”
- I, FIRST®, FIRST® LEGO® League, and FIRST® in Alabama do not specifically endorse or recommend any MINDSTORMS alternative you might see today.
- You will not be penalized nor granted favor by using or not using the the official LEGO MINDSTORMS software.

MakeCode EV3

- <https://makecode.mindstorms.com/>

Languages Supported in other FIRST Programs

- FIRST® Robotics Competition
 - LabView
 - C++
 - Java
- FIRST® Tech Challenge
 - Java

Other Languages

- Python
 - Not officially supported, but used by many teams in FRC.
- RobotC
- <https://lab.open-roberta.org/>
- <https://www.apple.com/swift/playgrounds/>
- <https://scratch.mit.edu/ev3>