

The 5 Building Blocks Activity Board

The 5 Building Blocks Activity Board, created by former ARRL Education & Technology Program Coordinator Mark Spencer WA8SME, is an ideal activity for introducing

wireless technology in the classroom. The activity board provides teachers with a ready, reliable set of component blocks that can be used in platform instruction to cover the five basic building blocks of virtually all wireless technology (**oscillators, rectifiers, amplifiers, mixers and filters**).

The activity board is best utilized with an oscilloscope and a volt-ohm meter (VOM).



Parallax offers an in-expensive USB oscilloscope, for teachers to visually illustrate each component:

www.parallax.com/tabid/768/txtSearch/oscilloscope/List/0/SortField/4/Default.aspx

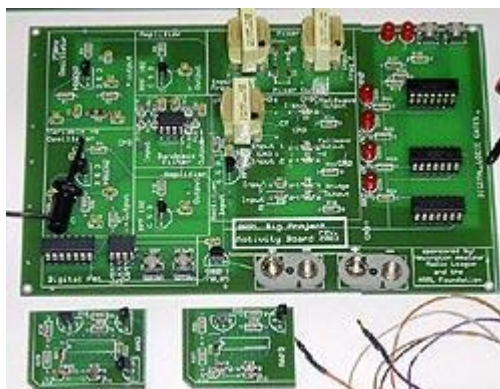
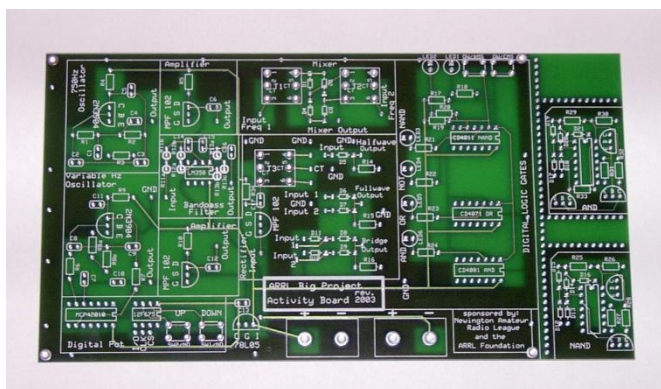
A 5 Building Blocks Activity Board “kit” is available for schools, who meet the criteria listed below. The kit includes a completely built activity board, a Parallax oscilloscope and supporting documentation, curriculum notes and instructions.

Interested schools should forward requests to the ARRL Education Services Department on school letterhead, signed by the school principal and the lead teacher. In the letter of request please verify that:

1. The lead teacher has reviewed Unit 9 of the *Education & Technology Program Curriculum Guide*¹ (www.arrl.org/curriculum-guide), and will use in the classroom the concepts presented there and supported by the activity board.
2. The lead teacher has access to a computer with a CD-ROM and a USB port, which the digital oscilloscope requires. (An overhead computer projector is helpful for platform instruction and to project oscilloscope displays.)

Teachers are encouraged to share additional curriculum material using the activity board with us and other teachers if they develop their own materials.

If you or your students are interested in building your own 5 Building Blocks Activity Board, please contact us to request the circuit diagram, parts list and instructions.



Teachers who are interested in learning more about introducing Wireless Technology in their classroom should apply to attend one of ARRL's Teacher Institutes on Wireless Technology (TI). Participants who attend a TI receive a 5 Building Blocks Activity Board to take back to their schools. For more information about TI's, please click on this link: www.arrl.org/teachers-institute-on-wireless-technology

Please send requests for the 5 Building Blocks Activity Board to:
ARRL Education Services Department
225 Main St.
Newington, CT 06111.

For more information about the ARRL Education & Technology Program, contact the ARRL Education Services Department, etp@arrl.org. To learn more about how to support the ARRL Education & Technology Program, contact ARRL Chief Development Officer Mary Hobart, K1MMH, 860-594-0397; mhobart@arrl.org

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Notes:

1. ARRL Curriculum Guide: Unit 9

9.1 Oscillators

www.arrl.org/files/file/Curriculum%20Guide/CG%20Unit%209%20Act%209_1%20Oscillator.pdf

9.1 Amplifiers

www.arrl.org/files/file/Curriculum%20Guide/CG%20Unit%209%20Act%209_1%20Amplifier.pdf

9.1 Rectifiers

www.arrl.org/files/file/Curriculum%20Guide/CG%20Unit%209%20Act%209_1%20Rectifiers.pdf

9.1 Mixers

www.arrl.org/files/file/Curriculum%20Guide/CG%20Unit%209%20Act%209_1%20Mixers.pdf

9.1 Filters

www.arrl.org/files/file/Curriculum%20Guide/CG%20Unit%209%20Act%209_1%20Filters.pdf

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