XinCheJian GGHC Project Idea #1: Educational Clicker

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What can you do with one button?

Actually a lot, depending on what is behind that button!

Inspired by Mitch Altman one-button device to turn off all TV (https://www.tvbgone.com), we want to come up with a one button clicker that can help in a classroom setting.

Our device is much more than one button of course: a box the size of a USB key that fits in a kid hands with a re-programmable micro-controller, an integrated speaker, possibly some sensors and most importantly wireless communication to all other surrounding devices. It also has a USB port that can be used both to charge the battery, reprogram the micro-controller or interface with a specialized computer program.

What is in a click? How fast, how many times in a row, how long you hold it and where you are when you click it... there's ton of valuable information that can be turned into interactive experiences.

Some of the experiences we are thinking about:

- Remember how your elementary teacher always picked a few pet students when asking questions, most likely not you? Give everyone a fair chance by letting student raise their hand virtually by being the first to click on the button. Wrong answer? The teacher long-press his clicker and the next fastest student is given a chance. Synthesized voice chip provide feedback and keeps track of scores!

- How about a treasure hunt activity where students try to find clickers hidden away in the school? Find the hidden clicker, press the button, get asked a question and click the necessary amount of time on your own clicker to select the answer!

- Learning Morse code? Race other teams and transmit a pre-set message to your pals!

- Create music collaboratively with a full Solfège (8 students: do re mi fa sol la si do)!

- Since the micro-controller is reprogrammable, your imagination is the limit!

Cost is low, the device is very portable, low power and can be mass produced cheaply and distributed to every student in a school. Even while adding to the learning experience, the electronic device doesn't distract the student like a computer or a mobile phone.