Assembling the Random Student Caller

A picture containing text, case

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1. I used these components.

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1. Either print the enclosure as is from the STL files or modify the [design in Onshape.com](https://cad.onshape.com/documents/337f68dea539d0ff47f9a69e/w/9f015188c0101e4bf8c26567/e/201a0eb6de7f408907aaba4d) to fit your components.

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1. Mount the Arduino Nano on a protoboard on header pins. Put a (square) button on the underside of the proto board. This button will change the class from which the name will be called. My battery went through a small buck converter to step the voltage down to 5V. The buck converter is also soldered on the underside of the protoboard. There are posts inside the enclosure that you can screw the protoboard onto.

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1. Install a big button (the red button in the first picture). This button will call up the next student. Install the power switch and the battery.
2. Remove the header pins on the MAX7219 board so it can fit into the enclosure.

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1. Gently pry up two of the LED matrix boards so you can have access to the holes that you will use to mount the LED board to the enclosure. Put the board in the enclosure and drill a hole in the enclosure at the correct spot. I used 3mm screws to hold it in place.

A close-up of a circuit board

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