This board shows four common microcontrollers used in learning robotics. On the left side are the two “Arduino” microcontrollers that were introduced about 14 years ago. They were relatively expensive, and many teachers could not afford to purchase robots for each student in a classroom.

On the right, we have two very modern microcontrollers. They are called the “Raspberry Pi Picos”. The one on the far right also has a wireless chip for connecting directly to the internet. They cost as little as $4 at the Microcenter store on highway 100 in St. Louis Park. You will also note that the old Arduino microcontrollers only could hold 2K bytes of RAM. The powerful Pico has almost 100 times as much RAM – which means it is awesome! It is also over 8 times faster! (16Mhz to 133Mhz)

With all this means is that these new microcontrollers are much easier to use for controlling displays. They also run the powerful MicroPython langauge that kids love to program.