Chip 1 pseudo code:

Set PWM for LED brightness control to inverting mode

Turn off LEDs on Chip 1 to start

Wait 1 sec

define sequence of numbers to send to chip 2

repeat the following three times:

      send value to chip 2

      wait 3 seconds

      receive new value from chip 2

      set PWM based on new value

      wait 3 seconds for a new number

keep last LED settings indefinitely

Chip 2 pseudo code:

Set up 8 LEDs, turn off to start

Loop 3 times while receiving data from chip 1

      Wait for data from chip 1

      Invert data received from chip 1

      Display data on LEDs

      Add 1 to received data value

      Send new data back to chip 1

Keep LEDs in last setting indefinitely