Description:

This is an air pressure simulator demonstrating the effect of ideal gas law.

Instruction:

- Press and release KEY3 to switch the HEX display between P(pressure in Pascal), V(volume in cubic meter), T(temperature in Kelvin) and n(the number of atoms).
- Press and release KEY2 to increase the value of V, T or n.
- Press and release KEY1 to decrease the value of V, T or n.
- Press and release KEY0 to reset the value of P, V, T or n to default value.
- Observe the change of motion of atoms on the VGA display due to change of V, T, n.
- Observe the change of P(pressure value) on the HEX display due to change of V, T, n.

Attribution Table:

Contribution Percentage	50 - 50
Work done by Boxuan Wang	VGA and HEX display design. All the functions drawing the movement of atoms on VGA and displaying the data on HEX.
Work done by Qianhan Cui	IRQ interrupt coding. All the functions related to handling the key press and changing the parameters.