## Research work -4

1. Can we use more than one IDE to develop programs for a microcontroller? Describe it

yes, we can use different IDE to develop programs for microcontrollers but we must have compiler of respective IDE which is used to develop program for microcontroller.

2. Write the name of manufacturer and IDE for following microcontrollers

ATmega series -Atmega

STM 32 series -STMicro electronics

PIC 32 series – microchip technology

LPC 2000 series -NXP semiconductor

PX 210 series- Renesas

3. Why Arduino is popular and why still it is not commercially used?

The Arduino is popular because it provides lots of libraries, lots of hardware boards and required less efforts to develop programming in Arduino IDE

The Arduino IDE is more user friendly than other IDES that is Arduino IDE programing is simple and understandable.

4. List out advantages and disadvantages of Arduino.

## Advantages

- Easy to Use. Arduino is super easy to learn.
- Arduino boards are available at low cost.
- No external programmer or power supply needed.

## Disadvantages-

- Cannot run more than one program at the same time
- Although Arduino does not directly support Python with IDE but can be programmed using some open-source libraries like pySerial.
- 5. Does Arduino use c/c++? Describe it.

The Arduino programming language is based on C++, a widely used and well-known programming language.