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EXPERIMENT NO.– 8

Problem Statement:

Write an Arduino program that:

- Asks the user to enter a number via the Serial Monitor.
- Squares the entered number.
- Outputs the squared result back to the Serial Monitor.

Components Required:

- Arduino Board (UNO, Mega, etc.)
- Arduino IDE
- Serial Monitor (for input and output)

Arduino Code :

```
int number;
int squaredNumber;

void setup() {
  Serial.begin(9600);
  Serial.println("Enter a number:");
}

void loop() {
  if (Serial.available() > 0) {
    number = Serial.parseInt();
    squaredNumber = number * number;

    Serial.print("You entered: ");
    Serial.println(number);

    Serial.print("Squared value: ");
    Serial.println(squaredNumber);

    Serial.println("Enter another number:");
  }
}
```

Output:

- 1.The program asks the user to enter a number by displaying:
 - Enter a number:
- 2.When the user inputs a number (e.g., 5), the Serial Monitor displays:
 - You entered: 5
 - Squared value: 25
- 3.The program continues to prompt for new numbers, allowing for repeated calculations.