

## Experiment Number 7

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Branch ::	CSE - IoT	Sec/Grp ::	1/A
Semester ::	5 <sup>th</sup>	Date ::	20 <sup>th</sup> Nov, 2021
Subject ::	WSN Lab	CODE ::	CSD-331

### 1. Aim :

Introduction to Raspberry Pi 3 and installation of Proteus 8.9.

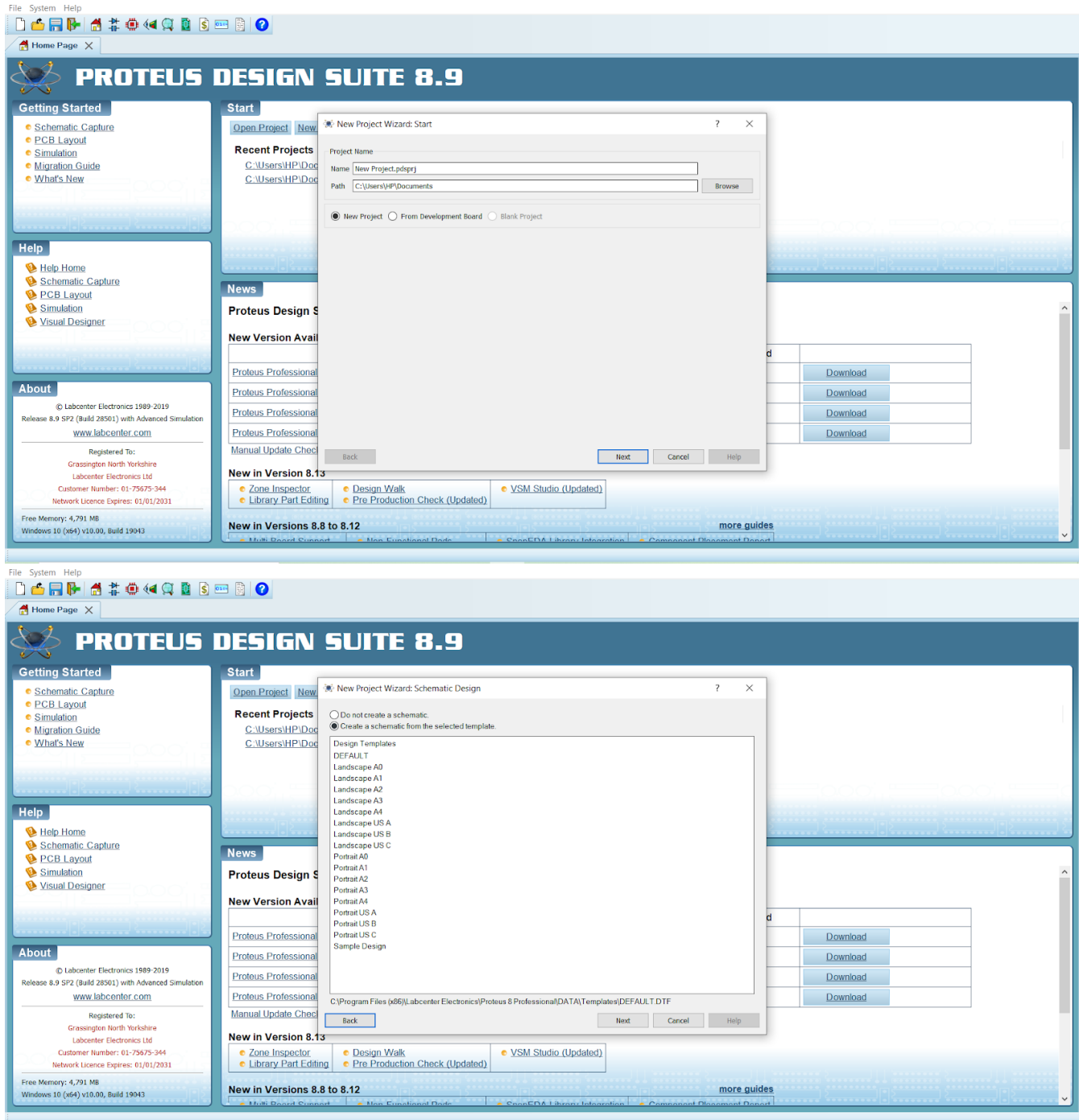
### 2. requirements :

1. Proteus 8.9

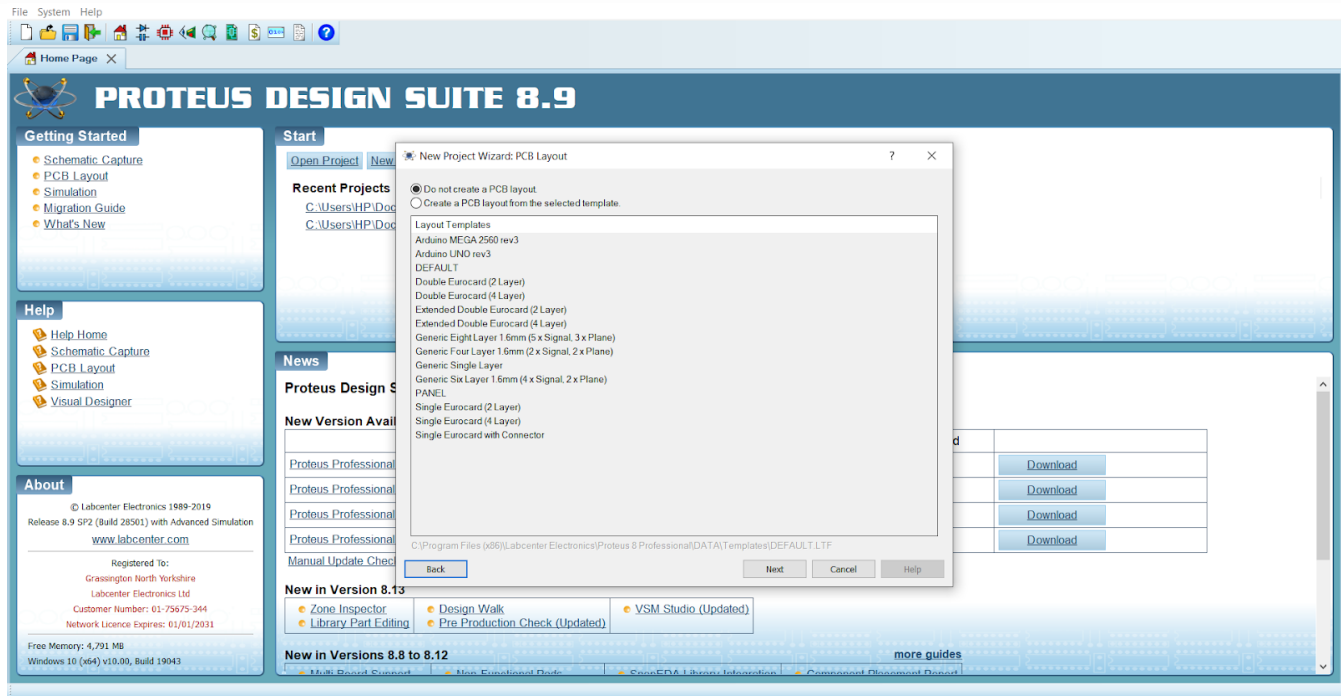
### 3. Theory :

Raspberry Pi is the name of a series of single-board computers made by the Raspberry Pi Foundation, a UK charity that aims to educate people in computing and create easier access to computing education. The Raspberry Pi launched in 2012, and there have been several iterations and variations released since then. The original Pi had a single-core 700MHz CPU and just 256MB RAM, and the latest model has a quad-core CPU clocking in at over 1.5GHz, and 4GB RAM. The price point for Raspberry Pi has always been under 100(usually around 35 USD), most notably the Pi Zero, which costs just \$5. All over the world, people use the Raspberry Pi to learn programming skills, build hardware projects, do home automation, implement Kubernetes clusters and Edge computing, and even use them in industrial applications. The Raspberry Pi is a very cheap computer that runs Linux, but it also provides a set of GPIO (general purpose input/output) pins, allowing you to control electronic components for physical computing and explore the Internet of Things (IoT).

## 4. Steps:



The screenshot displays the Proteus Design Suite 8.9 software interface. The 'New Project Wizard: Start' dialog box is open, showing the 'Project Name' field with 'New Project.pdprj' and the 'Path' field with 'C:\Users\HP\Documents'. The 'New Project' radio button is selected. The background interface includes a 'Getting Started' sidebar with links to Schematic Capture, PCB Layout, Simulation, Migration Guide, and What's New. The main area shows 'Recent Projects', 'News', and 'New in Version 8.13' sections. The bottom status bar indicates 'Free Memory: 4,791 MB' and 'Windows 10 (x64) v10.0.0, Build 19043'.



The screenshot displays the Proteus Design Suite 8.9 software interface. A 'New Project Wizard: PCB Layout' dialog box is open, showing options to either 'Do not create a PCB layout' or 'Create a PCB layout from the selected template'. A list of layout templates is provided, including 'Arduino MEGA 2560 rev3', 'Arduino UNO rev3', 'DEFAULT', 'Double Eurocard (2 Layer)', 'Double Eurocard (4 Layer)', 'Extended Double Eurocard (2 Layer)', 'Extended Double Eurocard (4 Layer)', 'Generic Eight Layer 1.6mm (5 x Signal, 3 x Plane)', 'Generic Four Layer 1.6mm (2 x Signal, 2 x Plane)', 'Generic Single Layer', 'Generic Six Layer 1.6mm (4 x Signal, 2 x Plane)', 'PANEL', 'Single Eurocard (2 Layer)', 'Single Eurocard (4 Layer)', and 'Single Eurocard with Connector'. The 'Next' button is highlighted.

**Getting Started**

- Schematic Capture
- PCB Layout
- Simulation
- Migration Guide
- What's New

**Help**

- Help Home
- Schematic Capture
- PCB Layout
- Simulation
- Visual Designer

**About**

© Labcenter Electronics 1989-2019  
Release 8.9 SP2 (Build 28501) with Advanced Simulation  
[www.labcenter.com](http://www.labcenter.com)

Registered To:  
Grassington North Yorkshire  
Labcenter Electronics Ltd  
Customer Number: 01-75675-344  
Network Licence Expires: 01/01/2031

Free Memory: 4,791 MB  
Windows 10 (x64) v19.09, Build 19043

**Start**

**Recent Projects**

- C:\Users\HP\Doc...
- C:\Users\HP\Doc...

**News**

**Proteus Design Suite**

**New Version Available**

Proteus Professional  
Proteus Professional  
Proteus Professional  
Proteus Professional  
Manual Update Check

**New in Version 8.13**

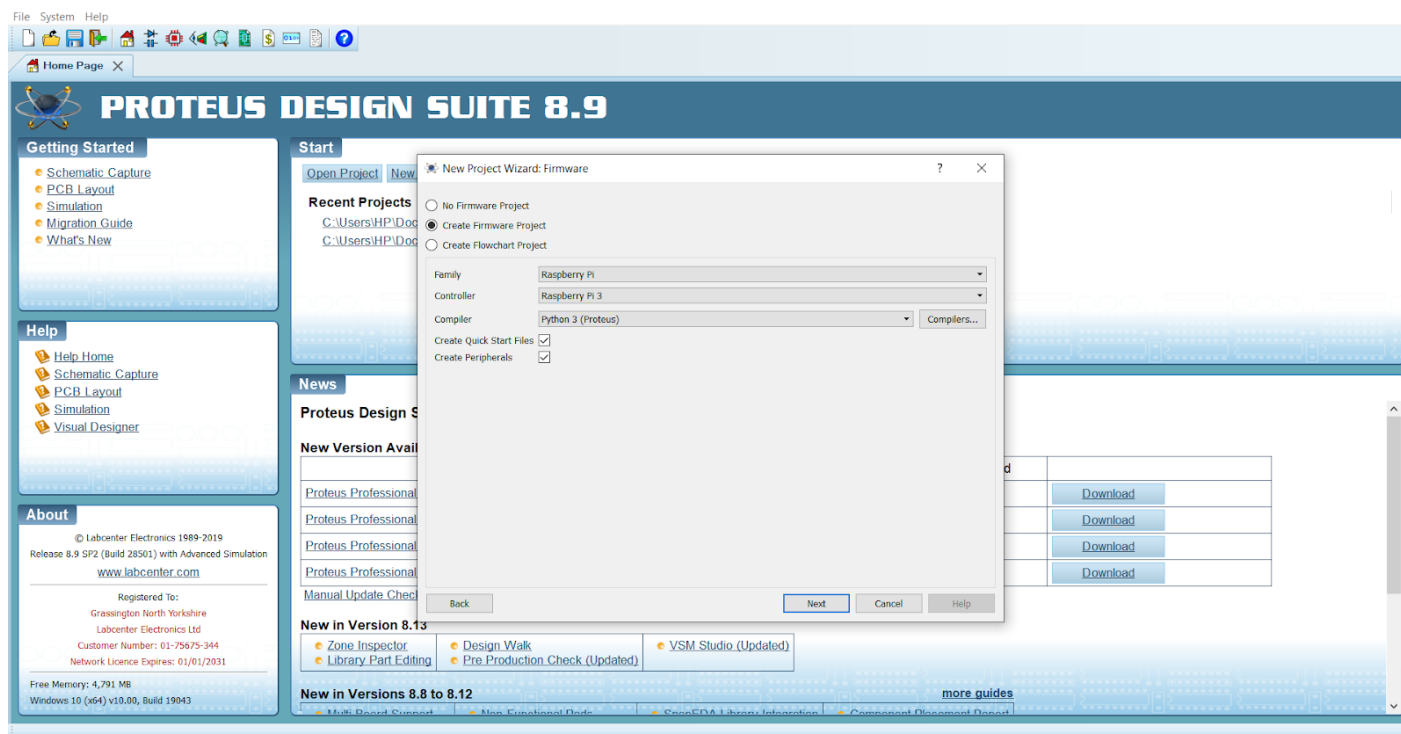
- Zone Inspector
- Design Walk
- Library Part Editing
- Pre Production Check (Updated)
- VSM Studio (Updated)

**New in Versions 8.8 to 8.12**

- Multi Board Support
- Non-Exhaustive Design
- Custom CDA Library Information
- Component Placement Order

**more guides**

## 5. Observations :



## Learning Outcomes :

- Proteus
- Raspberry Pi

S. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			