

## **EP1000**

What's Owing...
ToDos



#### **EP1000 Documentation Site**

- Use a template (Jake Wright, etc), modify to your own personality
- Site must use HTML and CSS
- Register your site using github
   Maintain your site using git
- Submit your site URL to <a href="https://tinyurl.com/ep1000sites">https://tinyurl.com/ep1000sites</a> by 28 May



### 3D Design

- Fusion 360 design of a chess piece Knight
  - Extrusion
  - Revolution
  - Solid manipulation
- Display of design on project website
- .f3d file
- Required for 3D Printing (Term 2)



#### Music box with lid

- Fusion 360 design of box
  - Using parameters.
  - Design to fit mechanical music generator
  - Has lid (removable)
- Preparation of DXF layout for laser cutting
- Write-up on website
  - Embedded design
  - .f3d file, DXF layout
- Required files for Laser cutting



### Astable using 555

- Convert a circuit diagram and implement it on a breadboard
- Simulate using TinkerCAD
- Additional:
  - Change values of R an C to see effects
- Document your work
- Physically implement the circuit using a breadboard and components



### Uno with 7-segment display

- TinkerCAD simulation
  - Uno
  - Common Cathode 7 Segment LED display
- Counts from 0 to 9 continuously
- Document your work



#### One Pushbutton SW - many states

- Work through the example in the class using TinkerCAD, understand the program
- Do Assessment 12, simulate using TinkerCAD
- Document your work, embed the simulation on your website



### Module Project

- Decide on your module project
- Sketch out the project, casing, chassis
- Write out the requirements
  - Uno/Nano
  - LEDs
  - Switches
  - What to be laser cut
  - What to be 3D printed



# **EP1000**

**Assessment 2021** 

**End**