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JIBEBE INTERNSHIP 2022

WEEKLY REPORT; AMOS WANENE

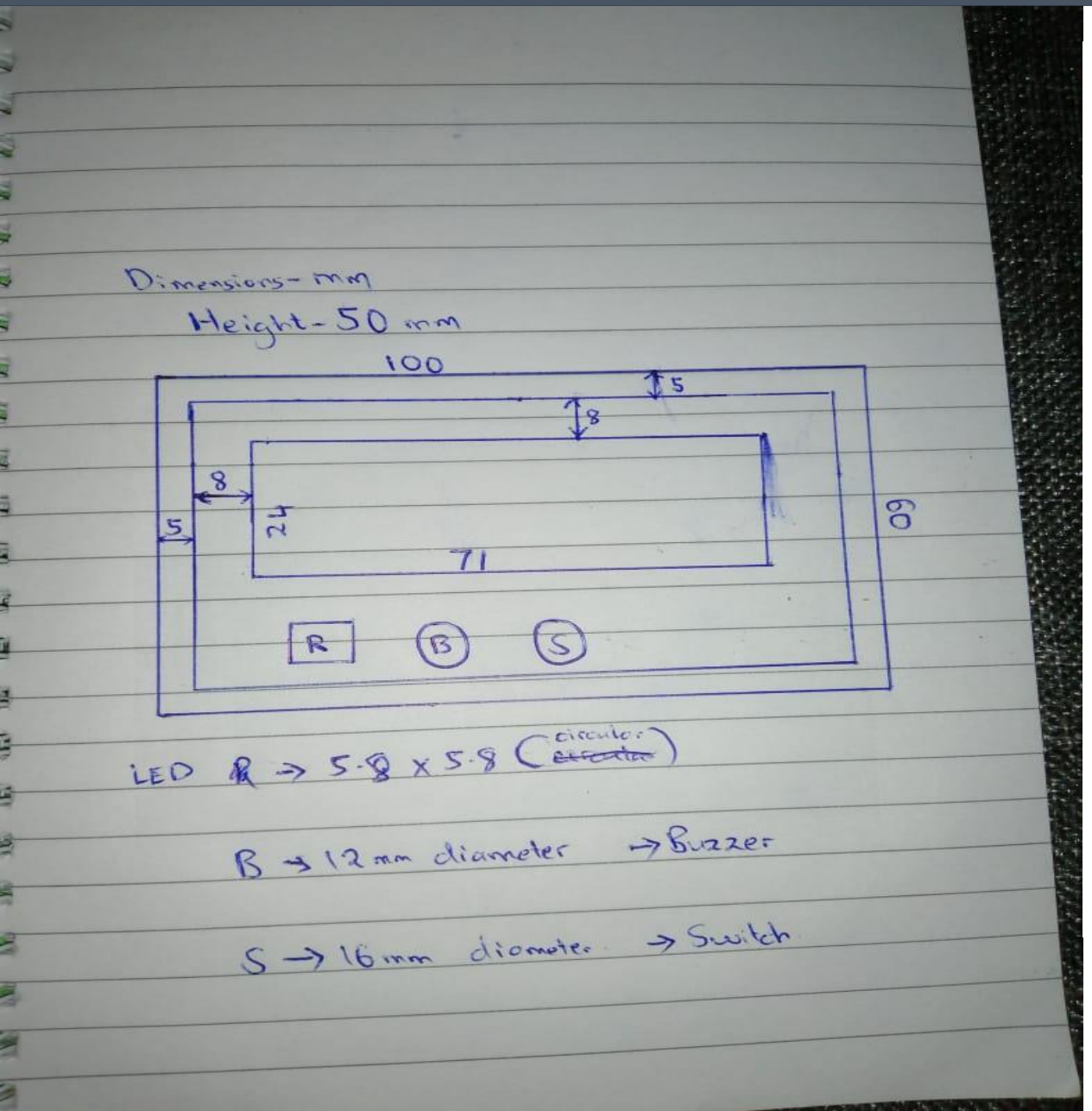
[#107] Design of a tricycle hub: for the LCD, switch button and buzzer.

[#108] Design of PCB housing unit

[#109] Consolidation of all function modules into a single main function: This can be found in the path electric/FInal/JibebeFinal.

Final amendments to the PCB layout

Compilation of the final report for the demo presentation.

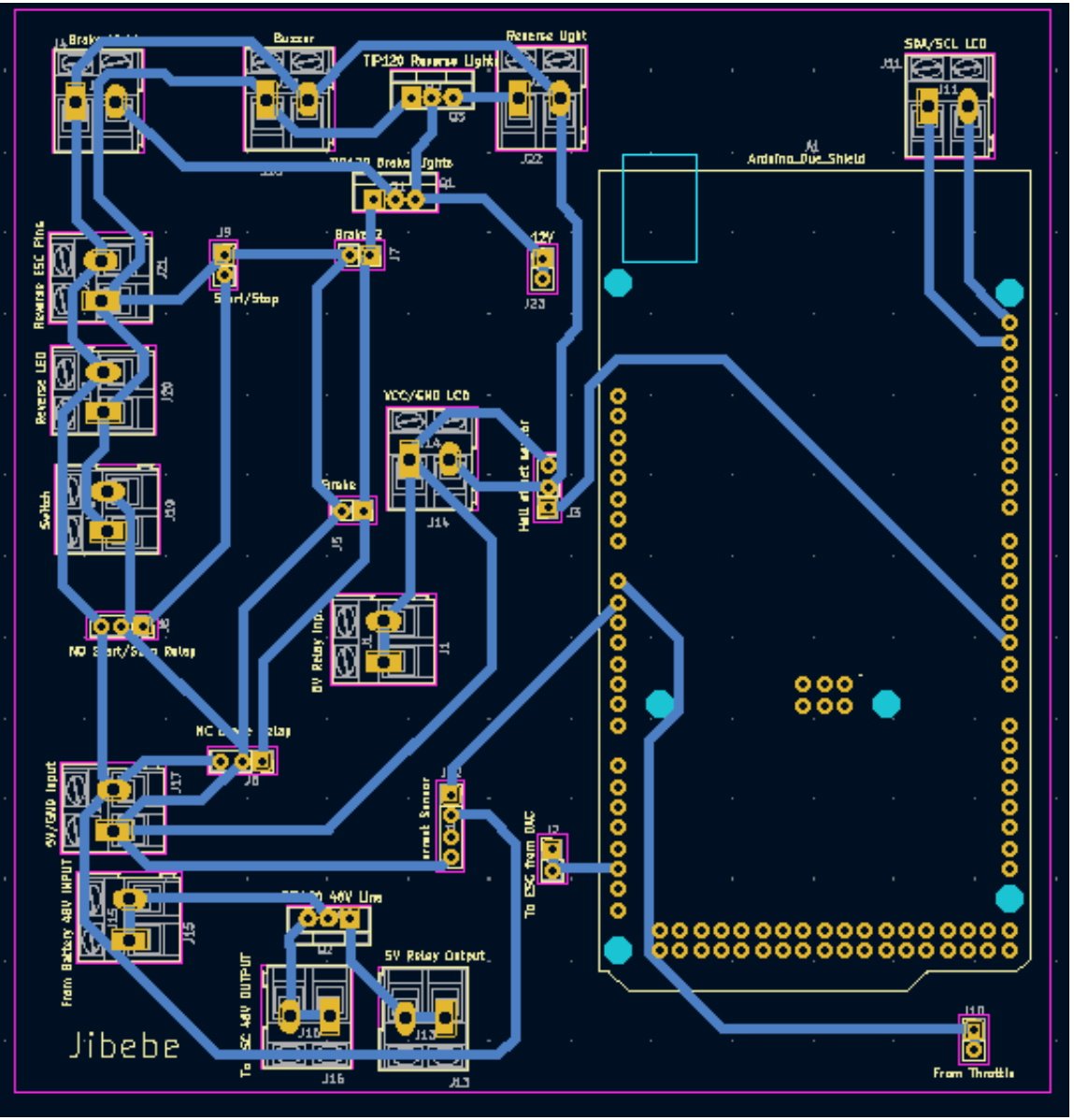

Dimensions- mm
Height- 50 mm
100
5
8
8
5
24
71
69
R
B
S
LED R → 5·8 x 5·8 (circular ~~Effective~~)
B → 12 mm diameter → Buzzer
S → 16 mm diameter → Switch

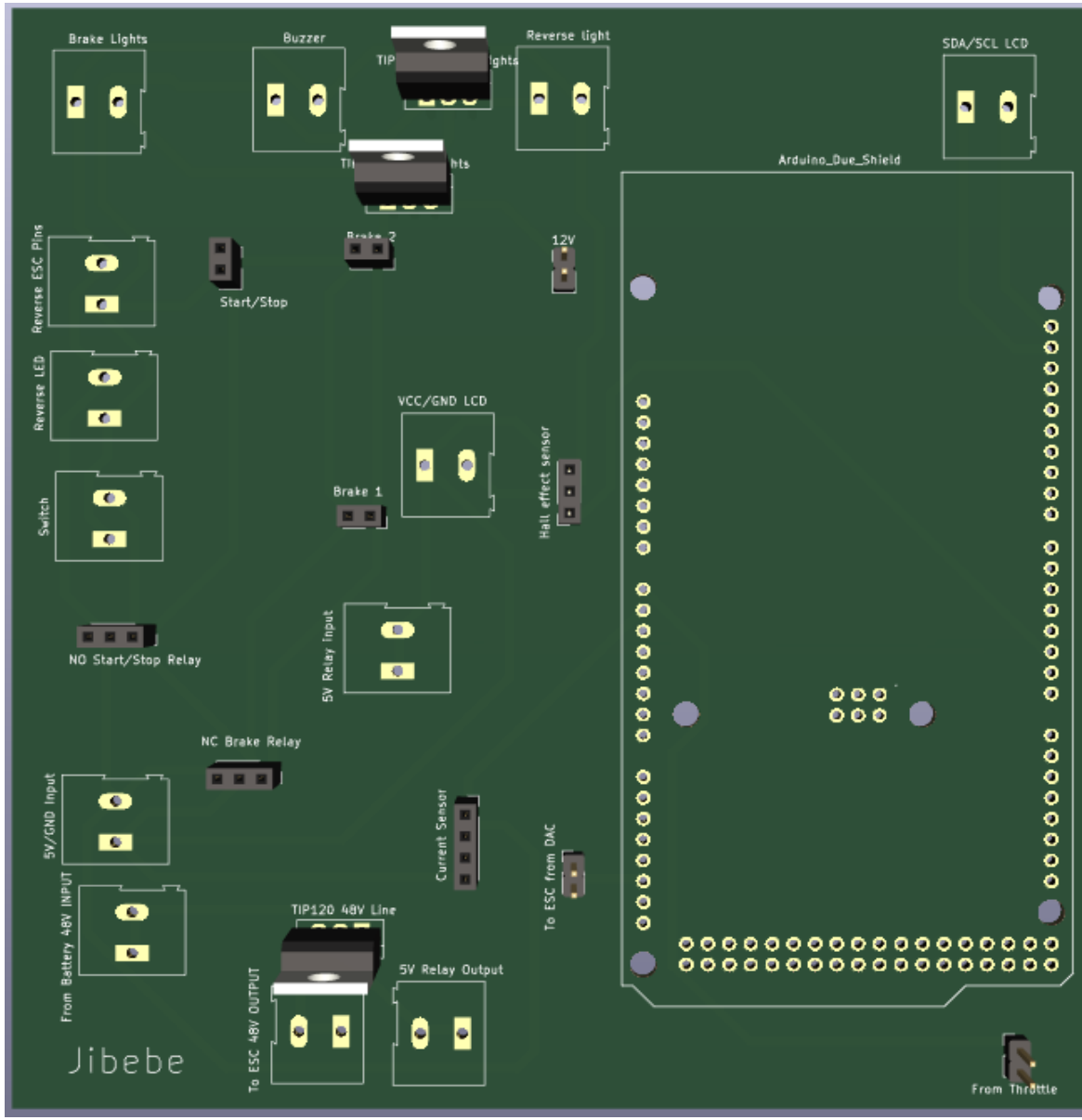
PCB HOUSING UNIT


```
void loop() {
  //calculate Velocity
  speed_km_h_value = calculateVelocity();
  battery_percentage = calculateBattPercentage();
  lcdDisplayBattAndSpeed(battery_percentage,speed_km_h_value);
  speedControl();
  delay(1);

}
```

PCB AMMENDMENTS





PCB Etching
Jibebe Website

Week	Tasks	Reporting	Hrs	Month
5 - Requirements review				
5.1	Finalize on battery acquisition for the Tricycle	None	20	Feb
5.2	Finalize on motor and torque requirements for the Tractor	None	8	
5.3	Clarify best choice for motor orientation for use in Tractor to allow for automation	Team meeting to review the best course of action	5	
6 - Research				
6.1	Research and recommend best motor for our specific use case in the Tractor	Electric Team Meeting	20	Feb
6.2	Get experimental data for motors and run simulations for verification	None	20	
7 - Testing				
7.1	Alpha testing of newly arrived battery for the tricycle.	Electric Team Meeting	20	Feb
7.2	Testing of integration with other components of the electric subsytem	None	25	
8 - Deployment				
8.1	Deployment of the electric subsystem of tricycle to finalized Tricycle	None	20	March
8.2	Fixing of any issues that may arise during Integration	None	20	
9 - Testing				
9.1	Alpha testing of newly arrived components for the tricycle.	Electric meeting	16	March
9.2	Getting experimental resuts of the components and NDT to validate correct operation and performance under load	None	24	

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Thank You