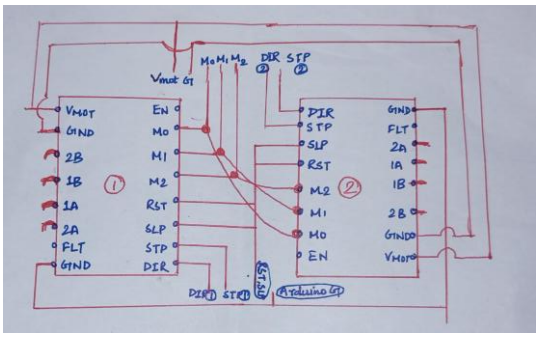
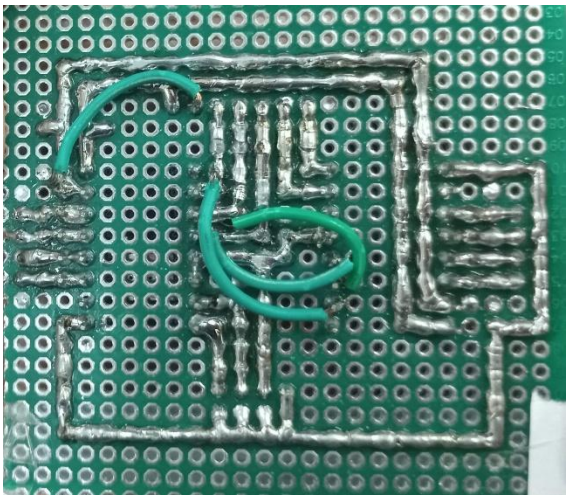
CONNECTIONS AND CUSTOM PCBS

Basically we wanted to place two drv8825 drivers on a single board , in order to reduce the no. of connections made using wire . There are two photos added below showing the front and back side of the buff board along with the pre plan design

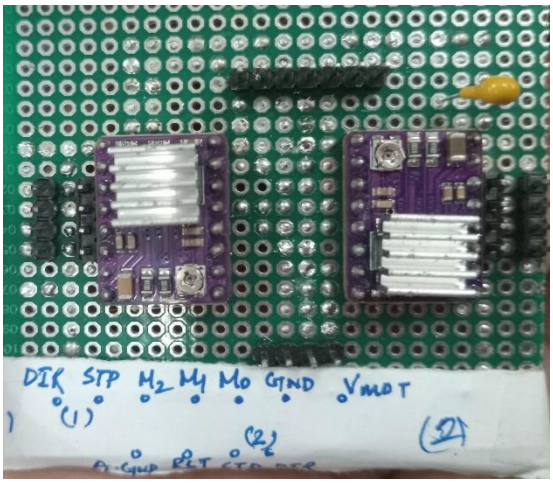
PLAN DESIGN



BACK SIDE



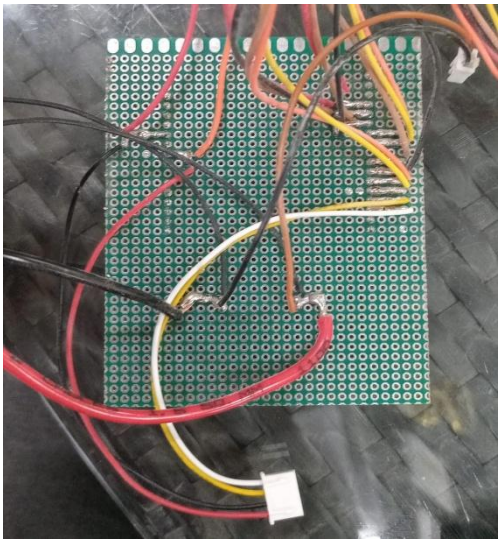
FRONT SIDE

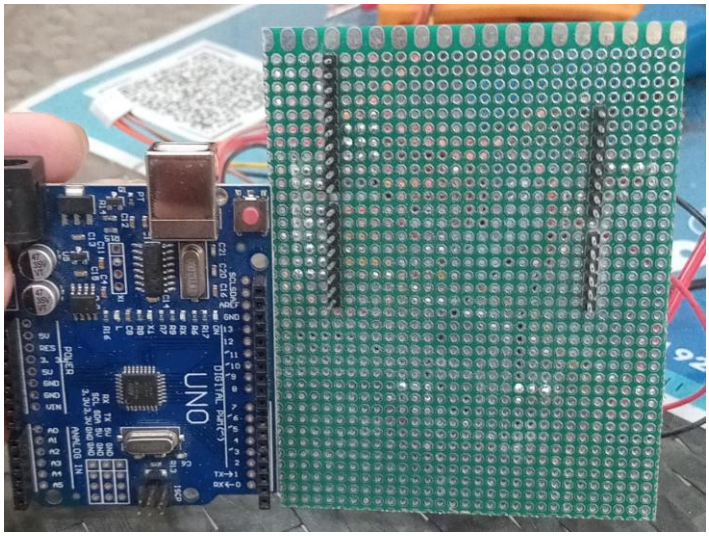


We also placed our Arduino on the buffboard and designed it in such a way that we don't have to think about the connections everytime , we have directle taken out jst wires from the Arduino's buff board so that we can easily connect it to the motor drivers' board . We have added the photos of our Arduino uno's custom pcb below

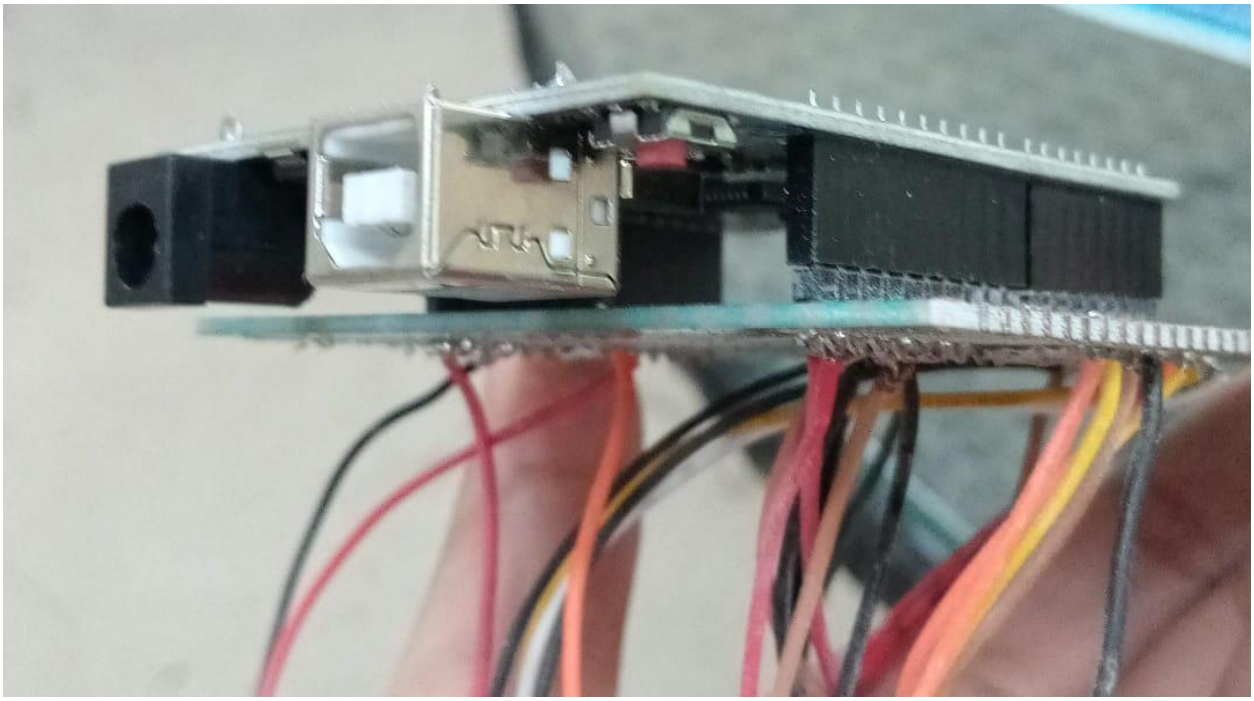
BACK SIDE

FRONT SIDE





HOW WE ARE PLACING THE ARDUINO ON MALE HEADER PINS



By placing the arduino uno on male header pins we can easily detach it in case of any emergency and we can use the board for other arduino uno.

The jst wires taken out from certain pins of tha arduino uno can be connected directly to the drivers' pcb making it very easy

THINGS NEEDED TO BE KEPT IN MIND WHILE MAKING THE PCBS AND MAKING CONNECTIONS-

1.Make sure to check the orientation of microcontroller or motor drivers in which you are going to place them in the buffboard.

2. Always use female or male header pins according to your use to place the driver or microcontroller on the board so that we can easily remove them.

3. Try to make the soldiering thin to avoid short circuit.

4.Always check that the soldiering material don’t get short circuited from the other side of the buff board.

5. Try to use less wires i.e try to minimize the crossovers

6. Using wires increase the chance of short circuit as one thin wire can get short circuited to other and it’s tough to notice