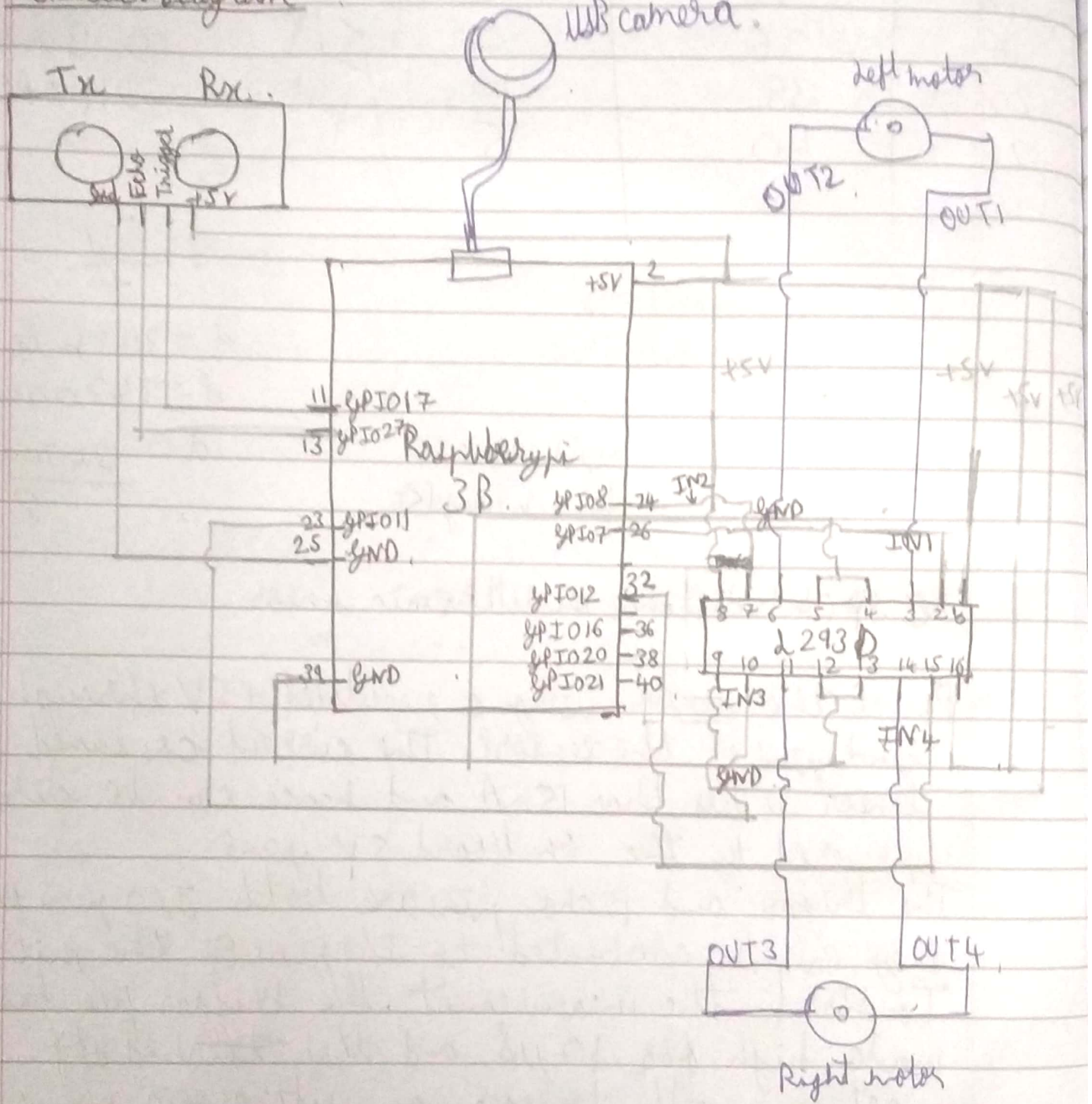
Circuit Diagram



GPIO	RPI-3	L293D	
12	32	2	I/P pins.
16	36	7	
20	38	10	
21	40	15	

DC motor
① 3 and 6.
② 11 and 14.

```
count = 0
while True:
    i = 0
    avgDistance = 0
    for i in range(5):
```

$$s = \frac{2d}{t}$$

$s = 343 \text{ m/sec}$

$s = 34300 \text{ cm/sec}$

$$d = \frac{34300 \times \text{duration}}{2}$$

HC SR04 :- distance or Ultrasonic sensor.

→ Power the sensor using a regulated +5V through Vcc and Gnd pins of the sensors. The current consumed by the sensor is less than 15mA and hence can be directly powered by the on board 5V pins.
The trigger and Echo pins are both I/O pins and hence they can be connected to I/O pins of the microcontroller. To start the measurement, the trigger pin has to be made high for 10 µs and then turned off. This action will trigger an ultrasonic wave at frequency of 40Hz from the transmitter and the receiver will wait for the wave to return. Once the wave is returned, Once the wave is returned after it getting reflected by any object the Echo pin goes high for a particular amount of time which will be equal to the time taken from the wave to return back to the sensor.