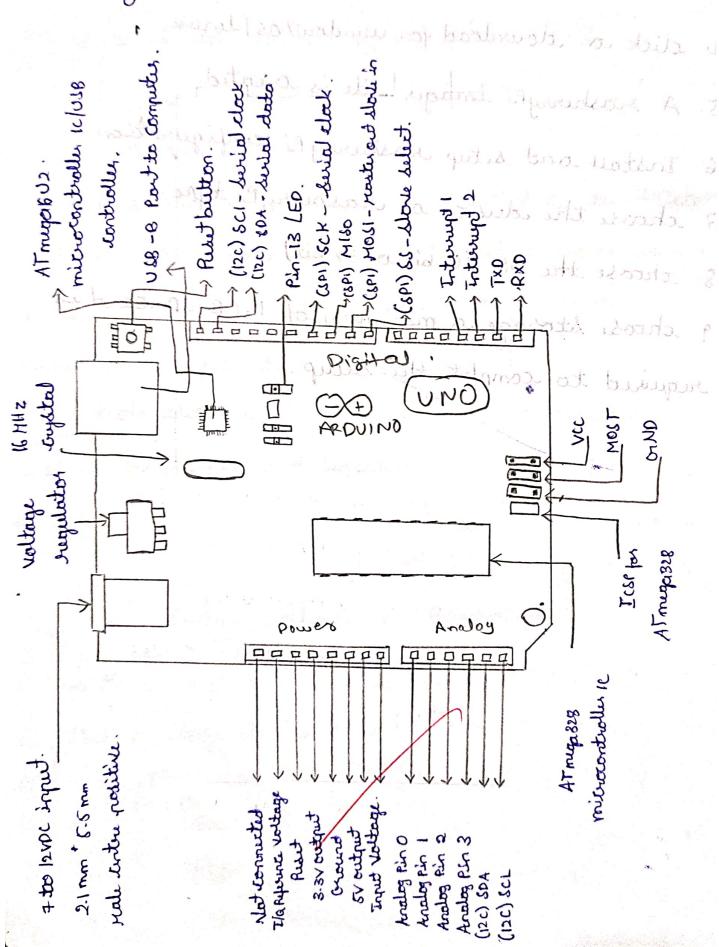
Acimo: Familiarization with Arduino and

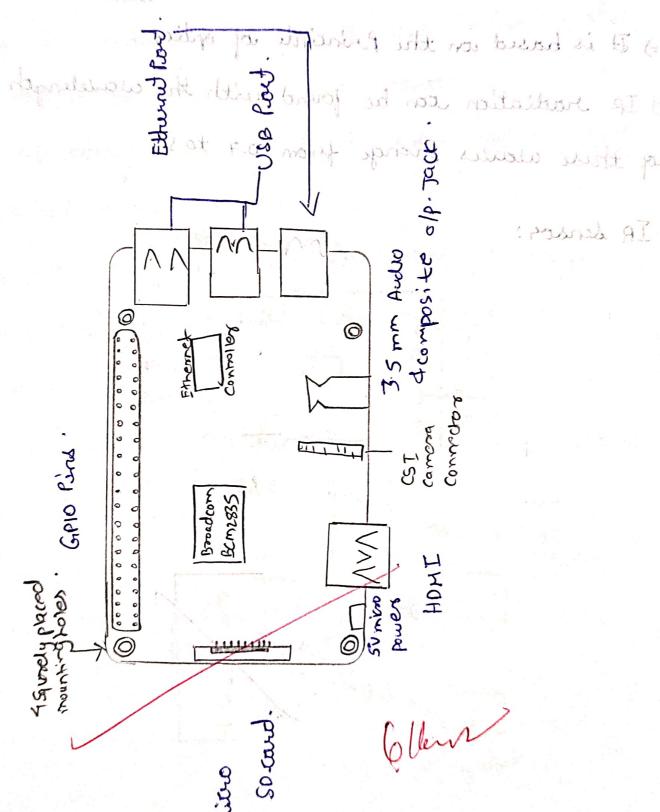
rasbury Pi board.



And south

rounce and radius her again to roduce II

Might injurished Assister)



write a Brogram to interface IR dentos valing Ardwine board.

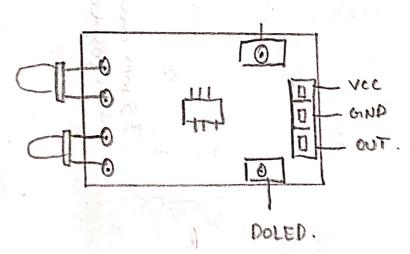
IR bender -> Infra red bender (LDR bender)
(light Dependent Pesister)
bender

=) It is based on the Principle of ortics.

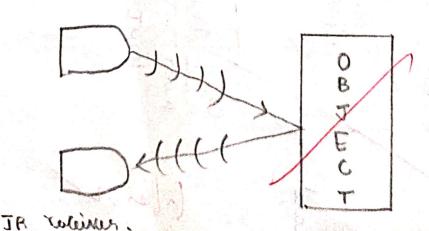
I IR tradication can be found with the wouldingth of these weaks very from 0.7 to 5

IR benson:

Power LED.



IR Turnsmitter



Hardware Requirements.

- 1- Andrino Board
- 2. IR bendon
- 3. Tuenper Wires.
- 4. Arduiro Cable.

Protedwa!

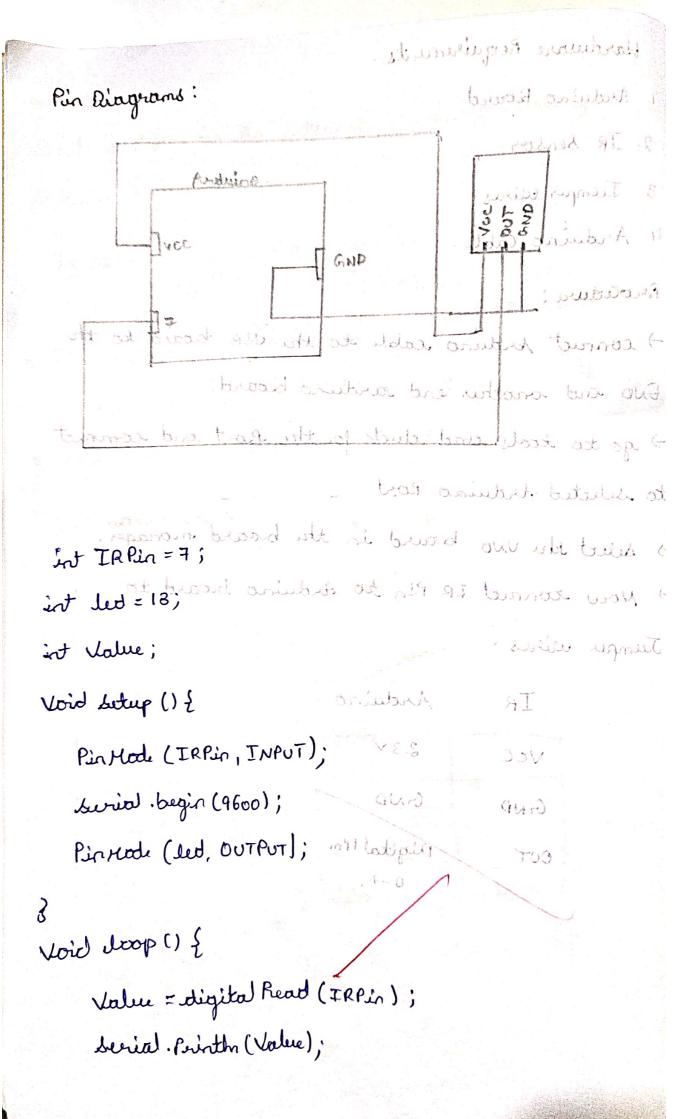
- -) convect serdino cable to the USB board to the END and another end randwine board.
- go to tools and truck for the part and commet to selected terduino Port.
- -> beliet the UNO board in the board monages.
- Now connect IR Pin to Arduino broard to Junper wires.

IR	Arduiro	Void boxup () f
VCC	3.8 V	Person (IRPLA, INPUT)
GND	GND	(10031) signed lawred
OUT	Digital IPM	Level (sed correct);
	0-+-	for post bink

((1991) band latifile = malaly

(which is the contained

Conseponisi no



If (digital Read (IRPin) ==0) digitalibile (led. HIGH); to or open to stice serial. Println ("object detected"); ultra early dender: instrument that measured there store digital Write (Jed, Low); sevial. Printla ("object not detected"); railongo in the street value took which in our offer output: lample brevas a present H Object not ditected. o Riverple of settratorie. Object not detected. Object not detected. Object detected. object detected.

write a Program to interface ultra Sonic Sensor using -Arduino board.

ultra sonie sersor:

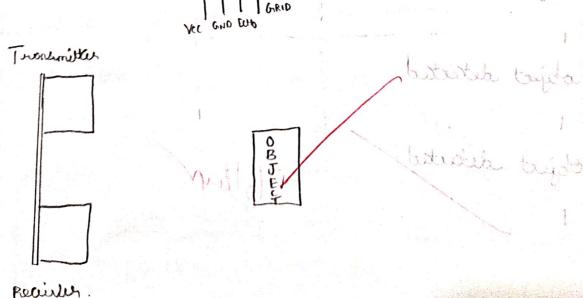
to an object using ultrasonic sound warles.

It uses a transduser to send and receive. utrasonic Pulses that relay back the information about an object.

- It concerts a bound signal into electrical signal.

-s Principle of ultrabonic.

Boyed not eletected



asstone = Time	x speed of s	ound/2. more as it is
_ he calculat	ted by Rush	ing.
ultrasonie Hc - SRO4	module Tim	ing Diagrom.
Trig Pin		
Pulare. MMM_		
Echo Pin .	a di pivi	
Hardware Requirements	: O st ost o	Proceeding:
1- Auduro UNO	a boa lite	to 1 min of
2. Arduino Cable. 3. uttra bonic Serbos	Hc-SROY	bull a book od and +
L. Jumes witels.		board broad -
5- LEO.		- proght prior affering 5
Vckingon	1 511	
GND	GNO	Programs.
TRIG	7	It odeplace : Echo PIN :
EcHO	8.	is 100 2187 aniph to

Pin Oragrom. obs 101. la bund. & smitt a grostail

Jano 8 January January

Procedure:

tre one End and another end sardwing board to

or to took select fort, and select romminitation

-) tonned jumper wives to the Bird.

& verify and epload.

-> stude the output in the serial monitor.

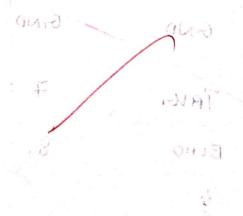
Program:

odyine · ECHO PIN 7

define TRIGIN 8

int led =12;

Int a,b;



```
Loid Setup ()
f state reduced expensely the marginal or stories and
 Social begin (9600) is dominated professional bound sto
 Pinnade (ECHOPIN, INPUT);
                              alimentary traductionally
 Pintrode (TRIGIPIN, OUTPUT);
                                     ONLY amubien I
 Purtode (led, OUTPUT);
           2 Andrew Lord book will be to blue both
3
                           3. Hc-05 Churtrally module
Loid Loop () {
  digital Write (TRIGIPIN, LOW); LOW);
 dilayriorosiconde (2000); primas part of ildia 220 2
  digital Write (TRIGPIN, HIGH);
  delay Microseconde (1000) par anubant more burnos.
  float a = Pulse In (ECHO PIN, HIGH);
                                      metaple wit it.
 digital Write (led, HIGH);
                            to so truled output: the social
                       Emso (toution o eno) -
  b = a * 0.0844/2;
 Surial. Print (6); 20 mg who as whom 2067 cm
                                     domos l'élicale
 Serial Printer ("cm");
                                       8 Cm
 delay (1000);
                                      5 cm.
                                          Cm
                                  2 323
                                         Cm.
```