

# ITSP 2015

---

## TEAM MEMBERS

SHRAY SIBAL 14D070017

SHREY GADIYA 14D070006

UTSAV JAIN 140040073

JAINAM SHAH 14D070014

## PROJECT DETAILS

TO CREATE A MECHANISM THAT CAN HELP IN LOCATING BOOKS IN A LIBRARY OR AS A PROTOTYPE IN A SHELF

WE WILL ACCOMPLISH THIS BY USING RAIL MECHANISM AND PLACING SENSORS THAT WILL 'READ' THE STICKERS ON THE BOOKS AND WILL STORE THEM IN ARRAY. IF THE BOOK ENTERED BY THE USER MATCHES THE BOOK IN THE ARRAY THEN THE SENSOR WILL GO TO THAT BOOK AND LIGHT A TORCH TO INDICATE THAT THE BOOK HAS BEEN FOUND

### WEEK 1

TO GET THE NECESSARY ELECTRICAL EQUIPMENT LIKE ARDUINO, IR SENSORS

TO GET THE NECESSARY MECHANICAL EQUIPMENT LIKE RAILS AND MOTORS ON WHICH THE SENSORS CAN TRAVERSE.

TO LEARN THE BASIC PROGRAMMING LANGUAGE THAT WE WILL BE USING FOR CODING.

### WEEK 2

TO SET UP THE MECHANICAL EQUIPMENT ON A PARTICULAR SHELF FOR THE SENSORS.

TO START THE BASIC CODING OF IMAGE PROCESSING THAT WE WILL BE REQUIRING IN THE PROJECT AND TRYING TO MAKE SURE THAT IT CAN READ AND PROCESS A PARTICULAR ALPHABET.

### WEEK 3

TO TRY OUT THE IMAGE PROCESSING CODE WITH A FEW BOOKS AND TO SEE IF IT WORKS.

TO SET UP THE FINAL MECHANICAL RAILS AND MOTORS REQUIRED AND TO PLACE THE SENSORS SO THAT THEY CAN MOVE ALONG THE SHELF

TO TRY TO READ AND STORE ATLEAST 10 BOOKS IN AN ARRAY THAT WE WILL CREATE

TO BUILD UP THE NECESSARY USER INTERFACE REQUIRED

### WEEK 4

TO SEE IF OUR DESIGN CAN SEARCH THE BOOKS OR NOT.

IF IT CAN, THEN WE WILL TRY TO MAKE OUR DESIGN SMARTER AND MORE EFFICIENT USING MEMORY IMPLEMENTATIONS

### COSTS

THE RAILS AND MOTOR- depends on mechanism used.

THE ARDUINO Around 1000

MISC-ICs / Wires/ Camera / Torch./ Sensors- Approx 4000