AUSBOT

AUTONOMOUS UNDERWATER SALVAGING BOT

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Objectives

- Salvaging item.
- Create a quick response system that can affect immediately.
- Efficient underwater resources detection.
- Designing an air tight system that can protect internal equipment.
- Designing a light-weight efficient system.

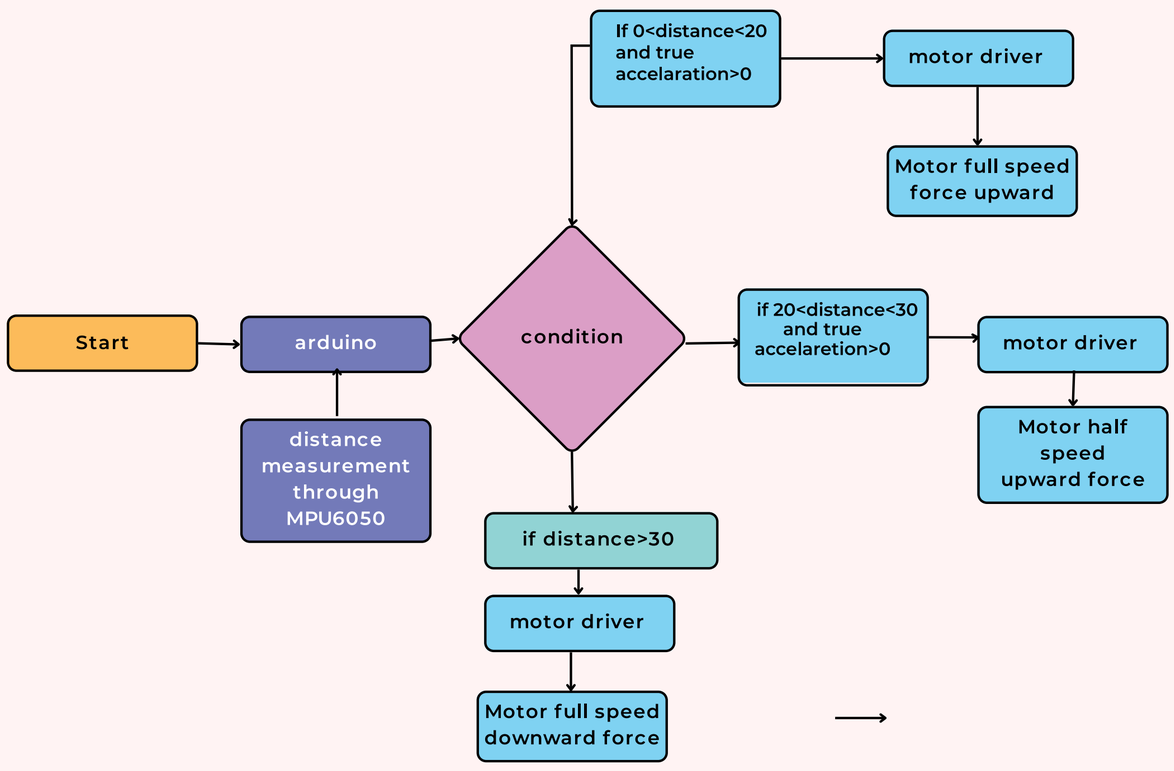
AUSBOT

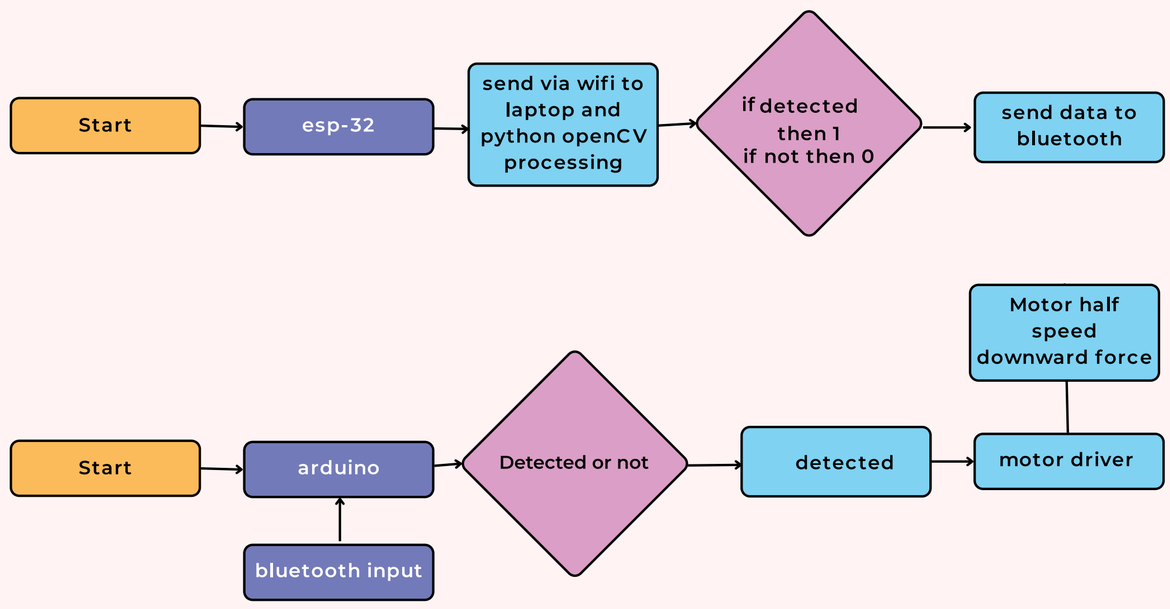
AUSBOT is an autonomous underwater salvaging bot which can detect underwater goods, catch them using net, and salvage them by floating up to the surface

How **AUSBOT** WORKS

- Activate
- Drown itself to a certain distance
- Wait for intervention
- Process captured image
- Resources detection
- Pick resources up to the surface
- Send signal to other boats
- If does not find any then resurfaces automatically

Block Diagram





Depth measurement

- Depth is measured by accelerometer
- Standard deviation of acceleration
- True standard deviation (standard deviation * 2g)
- True acceleration= current std-previous std
- Distance= 0.5*true acceleration*time squared

Components & Cost Analysis

SL no.	Name of the components	Quantity	Unit price (BDT)	Total price (BDT)
01	12v dc motor	2	200	400
02	RC boat Propeller	2	150	300
03	Arduino mega	1	1000	1000
04	Motor driver-L298D	1	250	250
05	MPU6050 Accelerometer and gyroscope	1	250	250
06	Bluetooth module(hc-05)	1	220	220
07	Esp32 wifi cam module	1	800	800
08	Body(pvc)	1	1500	1500
09	Breadboard	1	150	150
10	Battery	1	2500	2500
11	Wires and other mechanical accessories	As required	100	100
Total cost : Seven thousand, four hundred seventy				7470

Final Assembly

Applications

- Detecting salvaging item.
- Salvaging operation.
- Finding underwater lost item.

Future Scope

- Introducing human rescue system.
- GPS tracker and send SOS to emergency team.