Sensor Research

A comparison of sensors

University of Applied Sciences Rotterdam

TINPRJ03-1 : Project 1 Lift

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# Introduction

The goal of the current project is to build a scaled down version of an elevator shaft.  
This includes fabricating each story, making a control room and making the stories communicate with each other.

This research is written to find the optimal sensor to use for the detection of an elevator carriage.  
This will include:

* Describing how the sensor works.
* Describing current use cases of the sensor.
* Investigating the reliability of the sensor.
* Investigating the effectiveness of the sensor in the new use case.

# Types of sensors

## IR



#### Functionality

One Infra-red LED blasting IR light in all directions. A photoreceptor tuned to receive infra-red light.

#### Current use cases

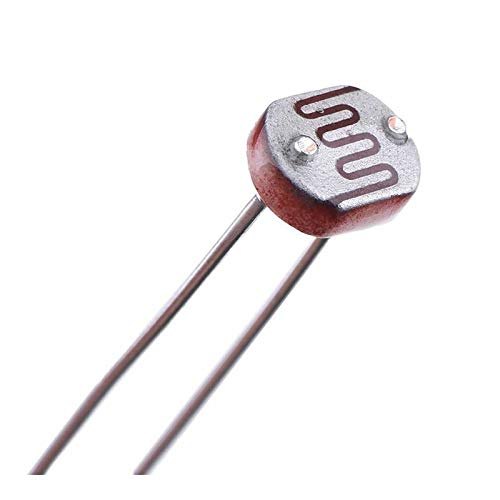
#### Reliability

Asd

#### New effectiveness

Asd

## LDR



#### Functionality

Asd

#### Current use cases

Asd

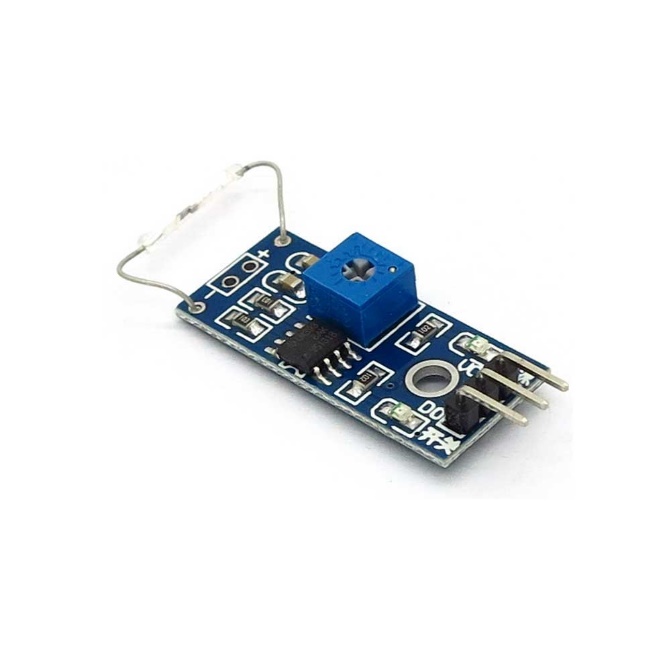
#### Reliability

Asd

#### New effectiveness

Asd

## Reed



#### Functionality

Two or more small metal leaves are suspended in a vacuum. Bringing a magnetic field close will make the leaves touch each other, creating a closed circuit and allowing electricity to flow.

#### Current use cases

Asd

#### Reliability

Asd

#### New effectiveness

Asd

## Limit switch



#### Functionality

Pushing the lever engages a contact allowing electricity to flow by creating a closed circuit.

#### Current use cases

Large industrial machines, Doors, 3D printers, Elevators

#### Reliability

Asd

#### New effectiveness

Asd

# Comparison

# Conclusion

# Bibliography