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# PRACTICAL REPORT

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FOR IOT PRACTICAL



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## 6.12 – Getting Inputs From Sensor

As you extend your code and it is doing other things in addition to reading the encoder, reading the encoder starts to get unreliable. This problem is particularly bad if the shaft rotates quickly.

### ❖ Arduino Code:

```
const int encoderPinA = 2;
const int encoderPinB = 4;
int Pos, oldPos;
volatile int encoderPos = 0;

void setup()
{
    pinMode(encoderPinA, INPUT);
    pinMode(encoderPinB, INPUT);
    digitalWrite(encoderPinA, HIGH);
    digitalWrite(encoderPinB, HIGH);
    Serial.begin(9600);
    attachInterrupt(0, doEncoder, FALLING);
}

void loop()
{
    uint8_t oldSREG = SREG;
    cli();
    Pos = encoderPos;
    SREG = oldSREG;
    if (Pos != oldPos)
    {
        Serial.println(Pos, DEC);
        oldPos = Pos;
    }
    delay(1000);
}
```

```

void doEncoder()
{
    if (digitalRead(encoderPinA) == digitalRead(encoderPinB))
        encoderPos++;
    else
        encoderPos--;
}

```

## ❖ Output / Circuit Diagram:

