CODE:

```
Analog Read Signal Code
*/
// the setup routine runs once when you press reset:
void setup() {
  // initialize serial communication at 9600 bits per second:
  Serial.begin(9600);
}
// the loop routine runs over and over again forever:
void loop() {
  // read the input on analog pin 0:
  int sensorValue = analogRead(A0);
  // print out the value you read:
  Serial.println(sensorValue);
  delay(500);        // delay in between reads for stability
}
SENDING CODE
#define LASERPIN 7
void setup() {
  // put your setup code here, to run once:
  pinMode (LASERPIN, OUTPUT) ;
   char myText[] = " ABES ENGINEERING COLLEGE  ";
 int length = sizeof(myText);
 int ar[50];
 int m;
 int bits[8];
 for (int i =0 ; i<length ; i++ ) {
  ar[i]= int(myText[i]);
 }
  for (int n =0 ; n<length ; n++ ){
  m=ar[n];
```

```
  int z;
  int bin[7];
  int newbin[7];
  for(z=0;z<8;z++){
    bin[z] = m%2;
    m = m /2 ;
  }
  for (int j= 7 ; j>=0 ; j-- ){
    newbin[7-j] = bin[j] ;
  }
   for( int p=0 ; p<8 ; p++ ){
      if (newbin[p] == 1){
       bits[p] = HIGH ;
      }
      if ( newbin[p] == 0){
       bits[p] = LOW ;
      }
  }
  bits[0] = HIGH;

  for (int i = 0; i < 8; i++) {
    digitalWrite(LASERPIN, bits[i]);
    delay(30);
  }
  digitalWrite(LASERPIN, LOW);
  delay(100);
  }
}
void loop() {

}
```

RECEIVING CODE

```
#define SOLARPIN A0
#define THRESHOLD 400
int ambientReading = 0;
void setup() {
  pinMode(SOLARPIN, INPUT);
  Serial.begin(9600);
}
void loop() {
  int reading = analogRead(SOLARPIN);
  int bits[8];
  //Listening for the start bit
  if (reading > THRESHOLD) {
    for (int i =0; i<8 ; i++) {
      if (analogRead(SOLARPIN) > THRESHOLD) {
        bits[i] = 1 ;
      }
      else {
        bits[i] = 0;
      }
      delay(30);
    }
    int m = 0;
    for (int j =1; j <8; j++) {
    if (bits[j] ==1) {
      m = m + (1<<(7-j));
    }
    }

    char n=m;
```

```
    Serial.print(n);
  }
}
```