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Lampiran : Listing program switching control unit antenna

```
/* Antenna Switching Control Unit
//Pin number assignments
const int refPin = 8;
const int ledPin1 = 2;
const int ledPin2 = 3;
const int ledPin3 = 4;
const int ledPin4 = 5;
const int ledPin4 = 6;
const int ledPin4 = 7;
long interval = 30000; // switching delay used to set frequency (ms)
void setup() {
  // set pins to output
  pinMode(refPin, OUTPUT);
  pinMode(ledPin1, OUTPUT);
  pinMode(ledPin2, OUTPUT);
  pinMode(ledPin3, OUTPUT);
  pinMode(ledPin4, OUTPUT);
  pinMode(ledPin5, OUTPUT);
  pinMode(ledPin6, OUTPUT);
  pinMode(refPin, OUTPUT);

  //set initial pin states to LOW
  digitalWrite(refPin, LOW);
  digitalWrite(ledPin1, LOW);
  digitalWrite(ledPin2, LOW);
  digitalWrite(ledPin3, LOW);
  digitalWrite(ledPin4, LOW);
  digitalWrite(ledPin5, LOW);
  digitalWrite(ledPin6, LOW);
}
void loop()
{
  //Cycle through each pin progressively with delay between
  //reference pin only switches every 2 cycles for 50% 500Hz wave
  digitalWrite(refPin, HIGH);
  digitalWrite(ledPin1, LOW);
  digitalWrite(ledPin2, LOW);
  digitalWrite(ledPin3, HIGH);
  digitalWrite(ledPin4, HIGH);
  digitalWrite(ledPin5, HIGH);
  digitalWrite(ledPin6, LOW);
  delayMicroseconds(interval);
  digitalWrite(refPin, HIGH);
  digitalWrite(ledPin1, LOW);
  digitalWrite(ledPin2, LOW);
}
```

```
digitalWrite(ledPin3, LOW);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin5, HIGH);
digitalWrite(ledPin6, HIGH);
delayMicroseconds(interval);
digitalWrite(refPin, LOW);
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, LOW);
digitalWrite(ledPin3, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin5, HIGH);
digitalWrite(ledPin6, HIGH);
delayMicroseconds(interval);
digitalWrite(refPin, LOW);
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin3, LOW);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin5, LOW);
digitalWrite(ledPin6, HIGH);
delayMicroseconds(interval);
digitalWrite(refPin, LOW);
digitalWrite(ledPin1, HIGH);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin3, HIGH);
digitalWrite(ledPin4, LOW);
digitalWrite(ledPin5, LOW);
digitalWrite(ledPin6, LOW);
delayMicroseconds(interval);
digitalWrite(refPin, LOW);
digitalWrite(ledPin1, LOW);
digitalWrite(ledPin2, HIGH);
digitalWrite(ledPin3, HIGH);
digitalWrite(ledPin4, HIGH);
digitalWrite(ledPin5, LOW);
digitalWrite(ledPin6, LOW);
delayMicroseconds(interval);}
```