'Variables

Water CON 4                   'Water Pump Pin
RtHB2 CON 5                   '2nd Right H-Bridge Pin
RtHB1 CON 6                   '1st Right H-Bridge Pin
LftHB2 CON 7                  '2nd Left H-Bridge Pin
LftHB1 CON 8                  '1st Left H-Bridge Pin
RtIR1 CON 10                  'Right IR LED Pin
LftIR1 CON 12                 'Left IR LED Pin
MidIR CON 13                  'Middle IR Pin
SdrServo CON 14               'Seeding Servo Pin
Dr1Servo CON 15               'Drill Servo Pin
RtIR2 VAR Bit                'Right IR Input
LftIR2 VAR Bit                'Left IR Input
Temp VAR Word                 'Temporary For...Next Variable
counter VAR Word              'Drill Value Counter
Number VAR Word               'IR Turning Value
HoldBit VAR Bit               'Middle IR Input

counter = 0                   'Setting counter to 0

Forward Movement

Forward:
   LOW RtHB1                  'Move Right Wheel Forward
   HIGH RtHB2
   LOW LftHB1                  'Move Left Wheel Forward
   HIGH LftHB2
   PAUSE 2200                  'Time of Forward Movement
GOTO MiddleIR

Stopping:
   LOW RtHB2                  'Stop Right Wheel
   LOW LftHB2                  'Stop Left Wheel
   PAUSE 10                    'Given Time to Change
GOTO Drill

Drill Hole

'
Drill:

counter=counter+1  "Increase Counter Value"

IF counter = 330 THEN Change "Set Boundry for Counter Value When Desending"

FOR temp = 0 TO 10 "Drill Rotation per Counter"

PULSOUT DrlServo,900 "Degree Rotation"

PAUSE 10 "Time to Activate"

NEXT

GOTO drill

Change:

counter = 0 "Reset Counter"

GOTO Up

Up:

counter=counter+1 "Increase Counter"

IF counter = 370 THEN Prepare "Set Boundry for Counter Value When Rising"

FOR temp = 0 TO 10 "Drill Rotation per Counter"

PULSOUT DrlServo,200 "Degree Rotation"

PAUSE 10 "Time To Activate"

NEXT

GOTO Up

'-----------------------------Prepare to Release Seeds-----------------------------

Prepare:

LOW RtHB1 "Move Right Wheel Forward"

HIGH RtHB2

LOW LftHB1 "Move Left Wheel Forward"

HIGH LftHB2

PAUSE 1100 "Time of Forward Movement"
LOW RtHB2  'Stop Right Wheel
LOW LftHB2  'Stop Left Wheel

PAUSE 10

GOTO Seeder  'Given Time to Change

'------------------------------------Release Seeds-----------------------------

Seeder:

FOR temp = 0 TO 10  'Opening Speed
  PULSOUT SdrServo,900  'Servo Opening Measurement
  PAUSE 10  'Time to Activate
NEXT

FOR temp = 0 TO 10  'Closing Speed
  PULSOUT SdrServo,750  'Servo Closing Measurement
  PAUSE 10  'Time to Activate
NEXT

GOTO WaterPump

'-------------------------------Water Seeds------------------------------

WaterPump:

HIGH  Water  'Start Pump
PAUSE  750  'Time Pump is Active
LOW  Water  'Stop Pump
PAUSE 100  'Time given to Stop Pump

GOTO Repeat

'----------------------------------Repeat----------------------------------

Repeat:

GOTO Forward  'Repeat From Beginning
------------Turning Movement-------------

MiddleIR:

DIR13=1                           'Present Pin 13 Value
FREQOUT MidIR,1,38500            'Signal Middle IR Pin, Time to
Send, Frequency

    HoldBit = IN13               'HoldBit is the Input Value if the Middle
    IR Signal

    IF HoldBit = 0 THEN GOTO IR   'Checking Objects Ahead
GOTO Stopping

IR:

FREQOUT LftIR1, 1, 38500             'Check Objects to the Left
LftIR2 = IN11

    IF LftIR2 = 0 THEN Right

FREQOUT RtIR1, 1, 38500             'Check Objects to the Right
RtIR2 = IN9

    IF RtIR2 = 0 THEN Left

    IF Number = 1 THEN Left      'Continuing Pattern
    IF Number = -1 THEN Right

Right:

Number=Number+1                    'Increasing Number Value

    IF Number=2 THEN stopper    'Limit For Number

    HIGH RthB1
    LOW RthB2

    LOW LftHB1
    HIGH LftHB2

    PAUSE 2800                   'Time For Turning

LOW RthB1
HIGH RthB2

LOW LftHB1                         'Turn Left Wheel Forward
HIGH LftHB2

PAUSE 2200 'Time to Go Forward
HIGH RtHB1 'Turn Right Wheel Backward
LOW RtHB2
LOW LftHB1 'Turn Left Wheel Backward
HIGH LftHB2
PAUSE 2800 'Time For Turning

GOTO Forward

Left:

Number=Number-1 'Decrease Number Value

IF Number=-2 THEN stopper 'Limit Number Value

LOW RtHB1 'Turn Right Wheel Forward
HIGH RtHB2
HIGH LftHB1 'Turn Left Wheel Backward
LOW LftHB2
PAUSE 2800 'Time to Turn
LOW RtHB1 'Turn Right Wheel Forward
HIGH RtHB2
LOW LftHB1 'Turn Left Wheel Forward
HIGH LftHB2
PAUSE 2200 'Time to Go Forward
LOW RtHB1 'Turn Right Wheel Forward
HIGH RtHB2
HIGH LftHB1 'Turn Left Wheel Backward
LOW LftHB2
PAUSE 2800 'Time to Turn

GOTO Forward

stopper:

END 'End Program