

Appendix (B):

The human machine interface code:

MANUAL IRRIGATION SYSTEM

```
Private Sub manual_Click()
```

```
manual.Caption = "manual"
```

```
End Sub
```

```
Private Sub Check1_Click()
```

```
If opvalve.Enabled = True Then ' Check1.maSkcolor= "green"&
```

```
End If
```

```
End Sub
```

```
Private Sub opvalve_Click()
```

```
valae_open = 0
```

```
If Chakmanual.Value = 0 Then ' opvalve.Enabled =True·
```

```
Else 'if Chakmanual.Value = 1
```

```
opvalve.Enabled = False
```

```
End If
```

```
End Sub
```

```
Private Sub Comclo_Click()
```

```
valae_claSe = 1
```

```
If Chakmanual.Value = 0 Then ' comclo.Enabled =True
```

```
Else 'if Chakmanual.Value = 1
```

```
opvalve.Enabled = True
```

End If

End Sub

AUTOMATIC IRRIGATION SYSTEM

Private Sub Chkautomatic_Click()

If Chkautomatic.Value = 0 Then ' If checked.Chakmanual.Value = 0.Chkautomatic.Value = 1.lable3 = 1

Else ' If not checked.

Chakmanual.Value = False

lable3 = 0

End If

End Sub

AUTOMATIC LIGHTING SYSTEM

Private Sub lightauto_Click()

cmlightop.Enabled = True

End Sub

Private Sub Chelightauto_Click()

If Chelightauto.Value = 1 Then ' if checked.Checklightman.enable = 1.Chelightauto.Value = 0
lightauto = 1

Else ' If not checked.

End If

cmlightop.Enabled = True

End Sub

MANUAL LIGHTING SYSTEM

Private Sub lightman_Click()

lightman.Caption = "manual"

End Sub

Private Sub Checklightman_Click()

If Checklightman.Value = 0 Then ' If checked.Chelightauto.value = 0.Checklightman.Value = 1.lightman = 1

Else ' If not checked.

Chelightauto.Value = False

End If

End Sub

Private Sub lighton_Click()

valae_on = 0

If Checklightman.Value = 0 Then ' lighton.Enabled =True

Else 'if Checklightman_.Value = 1

lighton.Enabled = False

End If

End Sub

Private Sub lightoff_Click()

valae_off = 1

If Checklightman.Value = 0 Then ' lightoff.Enabled =True

Else 'if Checklightman.Value = 1

lighton.Enabled = True

End If

End Sub

Private Sub CmdExit_Click()

Unload Me

End

End Sub

MANUAL IRRIGATION SYSTEM

Private Sub manual_Click()

manual.Caption = "manual"

End Sub

Private Sub Check1_Click()

If opvalve.Enabled = True Then ' Check1.maSkcolor= "green"&

End If

End Sub

Private Sub opvalve_Click()

valae_open = 0

If Chakmanual.Value = 0 Then ' opvalve.Enabled =True•

Else 'if Chakmanual.Value = 1

opvalve.Enabled = False

End If

End Sub

Private Sub Comclo_Click()

valae_claSe = 1

If Chakmanual.Value = 0 Then ' comclo.Enabled =True

Else 'if Chakmanual.Value = 1

opvalve.Enabled = True

End If

End Sub

AUTOMATIC IRRIGATION SYSTEM

Private Sub Chkautomatic_Click()

If Chkautomatic.Value = 0 Then ' If checked.Chakmanual.Value = 0.Chkautomatic.Value = 1.lable3 = 1

Else ' If not checked.

Chakmanual.Value = False

lable3 = 0

End If

End Sub

AUTOMATIC LIGHTING SYSTEM

Private Sub lightauto_Click()

cmlightop.Enabled = True

End Sub

Private Sub Chelightauto_Click()

If Chelightauto.Value = 1 Then ' if checked.Checklightman.enable = 1.Chelightauto.Value = 0 lightauto = 1

Else ' If not checked.

End If

cmlightop.Enabled = True

End Sub

MANUAL LIGHTING SYSTEM

```
Private Sub lightman_Click()
```

```
lightman.Caption = "manual"
```

```
End Sub
```

```
Private Sub Checklightman_Click()
```

```
If Checklightman.Value = 0 Then ' If checked.Chelightauto.value = 0.Checklightman.Value =  
1.lightman = 1
```

```
Else ' If not checked.
```

```
Chelightauto.Value = False
```

```
End If
```

```
End Sub
```

```
Private Sub lighton_Click()
```

```
valae_on = 0
```

```
If Checklightman.Value = 0 Then ' lighton.Enabled =True.
```

```
Else 'if Checklightman_.Value = 1
```

```
lighton.Enabled = False
```

```
End If
```

```
End Sub
```

```
Private Sub lightoff_Click()
```

```
valae_off = 1
```

```
If Checklightman.Value = 0 Then ' lightoff.Enabled =True
```

```
Else 'if Checklightman.Value = 1
```

```
lighton.Enabled = True
```

```
End If
```

```
End Sub
```

Private Sub CmdExit_Click()

Unload Me

End

End Sub

MANUAL IRRIGATION SYSTEM

Private Sub manual_Click()

manual.Caption = "manual"

End Sub

Private Sub Check1_Click()

If opvalve.Enabled = True Then ' Check1.maSkcolor= "green"&

End If

End Sub

Private Sub opvalve_Click()

valae_open = 0

If Chakmanual.Value = 0 Then ' opvalve.Enabled =True•

Else 'if Chakmanual.Value = 1

opvalve.Enabled = False

End If

End Sub

Private Sub Comclo_Click()

valae_claSe = 1

If Chakmanual.Value = 0 Then ' comclo.Enabled = True

Else 'if Chakmanual.Value = 1

opvalve.Enabled = True

End If

End Sub

AUTOMATIC IRRIGATION SYSTEM

Private Sub Chkautomatic_Click()

If Chkautomatic.Value = 0 Then ' If checked.Chakmanual.Value = 0.Chkautomatic.Value = 1.lable3 = 1

Else ' If not checked.

Chakmanual.Value = False

lable3 = 0

End If

End Sub

AUTOMATIC LIGHTING SYSTEM

Private Sub lightauto_Click()

cmlightop.Enabled = True

End Sub

Private Sub Chelightauto_Click()

If Chelightauto.Value = 1 Then ' if checked.Checklightman.enable = 1.Chelightauto.Value = 0 lightauto = 1

Else ' If not checked.

End If

cmlightop.Enabled = True

End Sub

MANUAL LIGHTING SYSTEM

Private Sub lightman_Click()

lightman.Caption = "manual"

End Sub

Private Sub Checklightman_Click()

If Checklightman.Value = 0 Then ' If checked.Chelightauto.value = 0.Checklightman.Value = 1.lightman = 1

Else ' If not checked.

Chelightauto.Value = False

End If

End Sub

Private Sub lighton_Click()

valae_on = 0

If Checklightman.Value = 0 Then ' lighton.Enabled =True.

Else 'if Checklightman_.Value = 1

lighton.Enabled = False

End If

End Sub

Private Sub lightoff_Click()

valae_off = 1

If Checklightman.Value = 0 Then ' lightoff.Enabled =True

Else 'if Checklightman.Value = 1

lighton.Enabled = True

End If

End Sub

Private Sub CmdExit_Click()

Unload Me

End

End Sub

MANUAL IRRIGATION SYSTEM

Private Sub manual_Click()

manual.Caption = "manual"

End Sub

Private Sub Check1_Click()

If opvalve.Enabled = True Then ' Check1.maSkcolor= "green"&

End If

End Sub

Private Sub opvalve_Click()

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If Chakmanual.Value = 0 Then ' opvalve.Enabled =True

Else 'if Chakmanual.Value = 1

opvalve.Enabled = False

End If

End Sub

```
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valae_claSe = 1

If Chakmanual.Value = 0 Then ' comclo.Enabled =True

Else 'if Chakmanual.Value = 1

opvalve.Enabled = True

End If

End Sub
```

AUTOMATIC IRRIGATION SYSTEM

```
Private Sub Chkautomatic_Click()

If Chkautomatic.Value = 0 Then ' If checked.Chakmanual.Value = 0.Chkautomatic.Value =
1.lable3 = 1

Else ' If not checked.

Chakmanual.Value = False

lable3 = 0

End If

End Sub
```

AUTOMATIC LIGHTING SYSTEM

```
Private Sub lightauto_Click()

cmllightop.Enabled = True


End Sub

Private Sub Chelightauto_Click()

If Chelightauto.Value = 1 Then ' if checked.Checklightman.enable = 1.Chelightauto.Value = 0
lightauto = 1

Else ' If not checked.

End If

cmllightop.Enabled = True
```

End Sub

MANUAL LIGHTING SYSTEM

Private Sub lightman_Click()

lightman.Caption = "manual"

End Sub

Private Sub Checklightman_Click()

If Checklightman.Value = 0 Then ' If checked.Chelighauto.value = 0.Checklightman.Value = 1.lightman = 1

Else ' If not checked.

Chelighauto.Value = False

End If

End Sub

Private Sub lighton_Click()

valae_on = 0

If Checklightman.Value = 0 Then ' lighton.Enabled =True

Else 'if Checklightman_.Value = 1

lighton.Enabled = False

End If

End Sub

Private Sub lightoff_Click()

valae_off = 1

If Checklightman.Value = 0 Then ' lightoff.Enabled =True

Else 'if Checklightman.Value = 1

lighton.Enabled = True

End If

End Sub

Private Sub CmdExit_Click()

Unload Me

End

End Sub