



Models	Description
1 iVu Plus Sensor	Sensor with integrated red ring light and 12 mm lens
2 SMBIVURAL	Right-angle bracket for mounting sensor from left
3 SP-DPB1	24 V dc power supply
4 IVUC-E-406	RJ45 Ethernet to 4-pin threaded pico-style cordset (female)
5 PSG-4M-4005-USB	USB to 4-pin pico-style cordset (male), 0.15 m
6 —	CD with iVu Series Emulator and technical documents (PN 91156)
7 IVU-USBFD1	USB drive
8 —	Stylus
9 —	Metal mounting surface
10 —	Flexible mounting stand with magnetic base
11 —	Targets—Dice (PN 220779 Qty 2), erasers (PN 220780 Qty 2) and bar codes (PN 208706)
12 —	Padded carrying case (black mat included in case)
Quick Start Guide	iVu Plus TG Quick Start Guide (PN 178442) iVu Plus BCR Quick Start Guide (PN 178443)
Demo Setup Card	iVu Plus Series Setup Card (PN 180066)

Area Sensor Lab—Lucky #7

Place the iVu sensor approximately 8" above target at a slight angle. Ensure at least one of the dice are placed on black mat within FOV of sensor.

- Click to go to **Main Menu**
- Click > **Auto Exposure** > **Continue**
- Adjust (focus ring) until a clear image is achieved
- Click twice to return to **Main Menu**
- Click **Stored Inspections** > **Add New**
 - Select **Sensor Type** > **Area**
 - Click **Next**
 - Rename inspection to **Lucky 7** and click
 - Click **Done**
- Click to go to **Main Menu**
- Click > **Sensors** > **Area1** > **Intensity Range** > Adjust the ROI to fit the screen
- Click > Then click one of the **Black Dots** on the dice.
NOTE: The dice should annotate in white. This will set the intensity range of an object selected.
- Click > **Area Range** and adjust left and right brackets until the yellow dots turn green or red. This will set the area range of the object selected.
- Click > **Pass Count** > Set **Max = 7, Min = 7**
- Click > **Roll the dice**. Any combination of numbers equal to 7 will pass..... Jackpot!



Match Sensor Lab—Deal or No Deal

Place the iVu sensor approximately 8" above target at a slight angle. Ensure one Money eraser is placed on black mat within FOV of sensor.

- Click to go to **Main Menu**
- Click > **Auto Exposure** > **Continue**
- Adjust (focus ring) until a clear image is achieved
- Click twice to return to **Main Menu**
- Click **Stored Inspections** > **Add New**
 - Select **Sensor Type** > **Match**
 - Click **Next**
 - Rename inspection to **Deal/No Deal**. Click
 - Click **Done**
- Click to go to **Main Menu**
- Click > **Sensors** > **Match 1** > **Percent Match** > Adjust the ROI to fit Franklin's (or other) face. Click **Teach**.
- Click Adjust the match percent to **80%**.
- Click > **Rotation Range**. Adjust rotation to **180°**.
- Click > **Pass Count** > Set **Max = 1, Min = 1**
- Click Now place a **\$20** or **\$50** bill under the iVu. It will fail because it is an incorrect bill..... No Deal!














NOTE: Working Distance (WD) = 8" (0.20 m) using a 12 mm lens. For different WD and lens options, see the Lens Assistant under software at www.bannerengineering.com/iVu.

Blemish Sensor Lab—Only One Dice

Place the iVu sensor approximately 2-3" above target at a slight angle. Ensure only one of the dice is placed on the black mat within FOV of sensor.


















1. Click  to go to **Main Menu**
2. Click  > **Auto Exposure** > **Continue**
NOTE: After auto exposure, adjust exposure to wash out any text present on the face of the dice
3. Adjust  (focus ring) until a clear image is achieved
NOTE: Center the dice in the image with ONE DOT facing up
4. Click  twice to return to **Main Menu**
5. a. Click  **Stored Inspections** > **Add New**
b. Select **Sensor Type** > **Blemish**
c. Click **Next**
d. Rename inspection to **Only One Dot** and click 
e. Click **Done**
6. Click  to go to **Main Menu**
7. Click  > **Sensors** > **Blemish1** > **Edge Length Range** > Adjust the ROI to fit the screen
8. Click  and adjust left and right brackets making sure the edges of the single dot are green and the edges of the die are yellow
9. Click  > **Pass Count** and adjust left and right brackets tightly around the green bar. This will set the pass count range such that addition edge counts (more than one dot or other blemishes) will cause the inspection to fail.
10. Click  > **Roll the single die**. Only the face with a single dot will pass, more than a single dot will be considered a blemish and fail.

Sort Sensor Lab—Show Me the Money

Place the iVu sensor approximately 8-10" above target at a slight angle. Ensure one Money eraser is placed on the black mat within FOV of sensor.



1. Click  to go to **Main Menu**
2. Click  > **Auto Exposure** > **Continue**
3. Adjust  (focus ring) until a clear image is achieved
4. Click  twice to return to **Main Menu**
5. a. Click  **Stored Inspections** > **Add New**
b. Select **Sensor Type** > **Sort**
c. Click **Next**
d. Rename inspection to **Show Me the Money**. Select 
e. Click **Done**
6. Click  to go to **Main Menu**
7. Click  > **Sensors** > **Sort1** > **Percent Match** > Adjust the Match percent to 60%
8. Click  > **Rotation Range** > Adjust rotation to **180°**
9. Click  > **Pass Criteria** and select **Any Saved Pattern**
10. Click 
11. a. Select ROI and adjust ROI to fit money (Franklin or other bill)
b. Click **Teach**, then **Save** 
c. Select location 1, then select  and rename pattern to "Franklin" (or another name)
d. Click  and then click **Save Pattern**
12. Place another money eraser in FOV of sensor and repeat step 11, except save to location 2
13. Click  Now place a bill under the iVu. It will identify the trained bills.

NOTE: Working Distance (WD) = 8 (0.20 m) using a 12 mm lens. For different WD and lens options, see the Lens Assistant under software at www.bannerengineering.com/iVu.